As filed with the Securities and Exchange Commission on March 4, 2019.

File No. 001-38787

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1
to

FORM 10

GENERAL FORM FOR REGISTRATION OF SECURITIES
PURSUANT TO SECTION 12(b) OR 12(g) OF
THE SECURITIES EXCHANGE ACT OF 1934

CYCLERION THERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

Massachusetts (State or other jurisdiction of incorporation or organization)	**83-1895370** (I.R.S. Employer Identification No.)
301 Binney Street, Cambridge, Massachusetts (Address of principal executive offices)	**02142** (Zip Code)

(617) 621-7722
(Registrant's telephone number, including area code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of Each Class to be so Registered	Name of Each Exchange on which each class is to be registered
Common Stock	The Nasdaq Stock Market LLC

Securities to be registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o	Non-accelerated filer ☒	Smaller reporting company ☒ Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

CYCLERION THERAPEUTICS, INC.

INFORMATION REQUIRED IN REGISTRATION STATEMENT
CROSS-REFERENCE SHEET BETWEEN INFORMATION STATEMENT
AND ITEMS OF FORM 10

Certain information required to be included in this Form 10 is incorporated by reference to specifically identified portions of the body of the information statement filed with this Form 10 as Exhibit 99.1. None of the information contained in the information statement shall be incorporated by reference in this Form 10 or deemed to be a part of this Form 10 unless such information is specifically incorporated by reference.

Item 1. Business.

The information required by this item is contained under the sections of the information statement entitled "Information Statement Summary," "Risk Factors," "Cautionary Statement Concerning Forward-Looking Statements," "Unaudited Pro Forma Combined Financial Statements," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Business," "Certain Relationships and Related Person Transactions," "Where You Can Find More Information" and "Index to Financial Statements" and the financial statements referenced in the information statement. Those sections are incorporated herein by reference.

Item 1A. Risk Factors.

The information required by this item is contained under the section of the information statement entitled "Risk Factors." That section is incorporated herein by reference.

Item 2. Financial Information.

The information required by this item is contained under the sections of the information statement entitled "Summary Historical and Unaudited Pro Forma Combined Financial Information," "Unaudited Pro Forma Combined Financial Statements," "Capitalization" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Those sections are incorporated herein by reference.

Item 3. Properties.

The information required by this item is contained under the section of the information statement entitled "Business—Facilities." That section is incorporated herein by reference.

Item 4. Security Ownership of Certain Beneficial Owners and Management.

The information required by this item is contained under the section of the information statement entitled "Security Ownership by Certain Beneficial Owners and Management." That section is incorporated herein by reference.

Item 5. Directors and Executive Officers.

The information required by this item is contained under the section of the information statement entitled "Management." That section is incorporated herein by reference.

Item 6. Executive Compensation.

The information required by this item is contained under the section of the information statement entitled "Executive Compensation." That section is incorporated herein by reference.

Item 7. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item is contained under the sections of the information statement entitled "Management," "Executive Compensation" and "Certain Relationships and Related Person Transactions." Those sections are incorporated herein by reference.

Item 8. Legal Proceedings.

The information required by this item is contained under the section of the information statement entitled "Business—Legal Proceedings." That section is incorporated herein by reference.

Item 9. Market Price of, and Dividends on, the Registrant's Common Equity and Related Stockholder Matters.

The information required by this item is contained under the sections of the information statement entitled "Risk Factors," "Dividend Policy," "Capitalization," "The Separation and Distribution" and "Description of Cyclerion's Capital Stock." Those sections are incorporated herein by reference.

Item 10. Recent Sales of Unregistered Securities.

The information required by this item is contained under the section of the information statement entitled "Description of Cyclerion's Capital Stock—Sale of Unregistered Securities." That section is incorporated herein by reference.

Item 11. Description of Registrant's Securities to be Registered.

The information required by this item is contained under the sections of the information statement entitled "Risk Factors," "Dividend Policy," "Capitalization," "The Separation and Distribution" and "Description of Cyclerion's Capital Stock." Those sections are incorporated herein by reference.

Item 12. Indemnification of Directors and Officers.

The information required by this item is contained under the section of the information statement entitled "Description of Cyclerion's Capital Stock—Indemnification of Directors and Officers." That section is incorporated herein by reference.

Item 13. Financial Statements and Supplementary Data.

The information required by this item is contained under the section of the information statement entitled "Index to Financial Statements" and the financial statements referenced therein. That section is incorporated herein by reference.

Item 14. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 15. Financial Statements and Exhibits.

(a) Financial Statements

The information required by this item is contained under the section of the information statement entitled "Index to Financial Statements" and the financial statements referenced therein. That section is incorporated herein by reference.

(b) Exhibits

The following documents are filed as exhibits hereto:

Exhibit Number	Exhibit Description
2.1*	Form of Separation Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
3.1*	Form of Articles of Organization of Cyclerion Therapeutics, Inc.
3.2*	Form of Bylaws of Cyclerion Therapeutics, Inc.
10.1*	Form of Transition Services Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
10.2*	Form of Transition Services Agreement by and between Cyclerion Therapeutics, Inc. and Ironwood Pharmaceuticals, Inc.
10.3*	Form of Tax Matters Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
10.4*	Form of Employee Matters Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
10.5*	Form of Development Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
10.6*	Form of Intellectual Property License Agreement by and between Ironwood Pharmaceuticals, Inc. and Cyclerion Therapeutics, Inc.
10.7*+	Form of Indemnification Agreement between Cyclerion Therapeutics, Inc. and individual directors and officers
10.8+	Form of Cyclerion Therapeutics, Inc. 2019 Employee Stock Purchase Plan
10.9+	Form of Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan
10.10+	Form of Stock Option Agreement under the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan
10.11+	Form of Non-Employee Director Restricted Stock Agreement under the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan
10.12+	Form of Restricted Stock Unit Agreement under the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan
10.13+	Form of Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan
10.14*+	Form of Stock Option Agreement under the Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan
10.15*+	Form of Non-Employee Director Restricted Stock Agreement under the Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan
10.16*+	Form of Restricted Stock Unit Agreement under the Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan
10.17+	Form of Cyclerion Therapeutics, Inc. Amended and Restated 2005 Stock Incentive Plan

Exhibit Number	Exhibit Description
10.18*+	Form of Cyclerion Therapeutics, Inc. Executive Severance Agreement
10.19	Amended and Restated Common Stock Purchase Agreement, dated as of February 25, 2019, by and between Cyclerion Therapeutics, Inc. and the investors party thereto
99.1	Information Statement of Cyclerion Therapeutics, Inc., preliminary and subject to completion, dated March 4, 2019
99.2	Form of Notice of Internet Availability of Information Statement Materials

* Previously filed.

\+ Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

CYCLERION THERAPEUTICS, INC.

By: /s/ WILLIAM HUYETT

Name: William Huyett
Title: *President*

Date: March 4, 2019

QuickLinks

CYCLERION THERAPEUTICS, INC.
2019 EMPLOYEE STOCK PURCHASE PLAN

1. **Defined Terms**

Exhibit A, which is incorporated by reference, defines the terms used in the Plan and sets forth certain operational rules related to those terms.

2. **Purpose of Plan**

The Plan is intended to enable Eligible Employees to use payroll deductions to purchase shares of Stock in offerings under the Plan, and thereby acquire an interest in the future of the Company. The Plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code and to be exempt from the application and requirements of Section 409A of the Code, and is to be construed accordingly.

3. **Options to Purchase Stock**

Subject to adjustment pursuant to Section 16 of the Plan, the maximum aggregate number of shares of Stock available for purchase under the Plan to Eligible Employees will be 400,000 shares, plus an annual increase to be added on the date of each specified annual meeting of the stockholders of the Company, beginning with the first annual meeting of stockholders following the Effective Date and ending with the ninth annual meeting of stockholders following the Effective Date, equal to the lesser of (i) one percent (1%) of the number of shares of Stock outstanding on a fully diluted basis as of the close of business on the immediately preceding day (calculated by adding to the number of shares of Stock outstanding, all outstanding securities convertible into Stock on such date on an as converted basis), and (ii) an amount determined by the Administrator on or prior to the date of such annual meeting of stockholders. The shares of Stock to be delivered upon exercise of Options under the Plan may be either shares of authorized but unissued Stock, treasury Stock or previously issued Stock acquired by the Company. If any Option granted under the Plan expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased shares of Stock subject to such Option will again be available for purchase under the Plan. If, on an Exercise Date, the total number of shares of Stock that would otherwise be subject to Options granted under the Plan exceeds the number of shares then available under the Plan (after deduction of all shares for which Options have been exercised or are then outstanding), the Administrator shall make a pro rata allocation of the shares remaining available for purchase under the Plan in as uniform a manner as shall be practicable and as it shall determine to be equitable. In such event, the Administrator shall notify each Participant of such reduction and of the effect on the Participant's Options and may reduce the rate of payroll deductions, if necessary.

4. **Eligibility**

(a) *Eligibility Requirements.* Subject to Section 13 of the Plan, and the exceptions and limitations set forth in Sections 4(b), 4(c) and 6 of the Plan, or as may be provided elsewhere in the Plan, each Employee (i) who has been continuously employed by the Company or a

Designated Subsidiary, as applicable, for a period of at least fifteen (15) Business Days as of the first day of an Option Period, (ii) whose customary Employment with the Company or a Designated Subsidiary, as applicable, is for more than five (5) months per calendar year, (iii) who customarily works twenty (20) hours or more per week, and (iv) who satisfies the requirements set forth in the Plan will be an Eligible Employee.

(b) *Five Percent Shareholders.* No Employee may be granted an Option under the Plan if, immediately after the Option is granted, the Employee would own (or pursuant to Section 424(d) of the Code would be deemed to own) stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or of its Parent or Subsidiaries, if any.

(c) *Additional Requirements.* The Administrator may, for Option Periods that have not yet commenced, establish additional or different eligibility requirements not inconsistent with Section 423 of the Code.

5. **Option Periods**

The Plan will generally be implemented by a series of separate offerings referred to as "**Option Periods**". Unless otherwise determined by the Administrator, the Option Periods will be successive periods of approximately six (6) months commencing on the first Business Day in June and December of each year, anticipated to be on or around June 1 and December 1, and ending approximately six (6) months later on the last Business Day in November or May, as applicable, of each year, anticipated to be on or around November 30 and May 31. The last Business Day of each Option Period will be an "**Exercise Date**". The Administrator may change the Exercise Date, the commencement date, the ending date and the duration of each Option Period to the extent permitted by Section 423 of the Code; *provided, however,* that no Option may be exercised after 27 months from its grant date.

6. **Option Grant**

Subject to the limitations set forth in Sections 4 and 10 of the Plan and the Maximum Share Limit, on the first day of an Option Period, each Participant automatically will be granted an Option to purchase shares of Stock on the Exercise Date; *provided, however*, that no Participant will be granted an Option under the Plan that permits the Participant's right to purchase shares of Stock under the Plan and under all other employee stock purchase plans of the Company and its Parent and Subsidiaries, if any, to accrue at a rate that exceeds $25,000 in Fair Market Value (or such other maximum as may be prescribed from time to time by the Code) for each calendar year during which any Option granted to such Participant is outstanding at any time, as determined in accordance with Section 423(b)(8) of the Code.

7. **Method of Participation**

(a) *Payroll Deduction and Participation Authorization*. To participate in an Option Period, an Eligible Employee must execute and deliver to the Administrator a payroll deduction and participation authorization form in accordance with the procedures prescribed by, and in a form acceptable to, the Administrator and, in so doing, the Eligible Employee will thereby become a Participant as of the first day of such Option Period. Such an Eligible Employee will

remain a Participant with respect to subsequent Option Periods until his or her participation in the Plan is terminated as provided herein. Such payroll deduction and participation authorization must be delivered not later than fifteen (15) Business Days prior to the first day of an Option Period, or such other time as specified by the Administrator.

(b) *Changes to Payroll Deduction Authorization for Subsequent Option Periods*. A Participant's payroll deduction authorization will remain in effect for subsequent Option Periods unless the Participant files a new authorization not later than fifteen (15) Business Days prior to the first day of the subsequent Option Period (or such other time as specified by the Administrator) or the Participant's Option is cancelled pursuant to Section 13 or 14 of the Plan.

(c) *Changes to Payroll Deduction Authorization for Current Option Period.* During an Option Period, a Participant may decrease his or her payroll deduction authorization once, but may not increase his or her payroll deduction authorization. Any election to decrease to a Participant's payroll deduction authorization intended to be effective for the Option Period during which the election to decrease is made must be delivered to the Administrator in accordance with the procedures prescribed by, and in a form acceptable to, the Administrator and will be effective as soon as administratively practicable. If a Participant's payroll deduction authorization is reduced to 0% during an Option Period, payroll deductions previously accumulated during such Option Period will be applied to purchase shares of Stock on the Exercise Date for that Option Period and the Participant's participation in the Plan will thereupon terminate, unless the Participant has delivered a new payroll deduction authorization for the subsequent Option Period in accordance with the rules of Section 7(b) above. A Participant may also terminate his or her payroll deduction authorization during an Option Period by canceling his or her Option in accordance with Section 13 of the Plan.

(d) *Payroll Deduction Percentage.* Each payroll deduction authorization will authorize payroll deductions as a whole percentage from one percent (1%) to fifteen percent (15%) of the employee's Eligible Compensation per payroll period.

(e) *Payroll Deduction Account.* All payroll deductions made pursuant to this Section 7 will be credited to the Participant's Account. Amounts credited to a Participant's Account will not be required to be set aside in trust or otherwise segregated from the Company's general assets.

8. **Method of Payment**

A Participant must pay for shares of Stock purchased under the Plan with accumulated payroll deductions credited to the Participant's Account, unless otherwise provided by the Administrator under a sub-plan or separate offering for a non-U.S. Designated Subsidiary.

9. **Purchase Price**

The Purchase Price of shares of Stock issued pursuant to the exercise of an Option on each Exercise Date will be eighty-five percent (85%) (or such greater percentage specified by the Administrator to the extent permitted under Section 423 of the Code) of the lesser of (a) the Fair Market Value of a share of Stock on the date on which the Option was granted pursuant to Section 6 of the Plan (*i.e.*, the first day of the Option Period) and (b) the Fair Market Value of a

share of Stock on the date on which the Option is deemed exercised pursuant to Section 10 of the Plan (*i.e.*, the Exercise Date).

10. **Exercise of Options**

(a) *Purchase of Shares*. Subject to the limitations set forth in Section 6 of the Plan and this Section 10, with respect to each Option Period, on the applicable Exercise Date, each Participant will be deemed to have exercised his or her Option and the accumulated payroll deductions in the Participant's Account will be applied to purchase the greatest number of shares of Stock (rounded down to the nearest whole share) that can be purchased with such Account balance at the applicable Purchase Price; *provided*, *however*, that no more than 2,500 shares of Stock may be purchased by a Participant on any Exercise Date, or such lesser number as the Administrator may prescribe in accordance with Section 423 of the Code (the "**Maximum Share Limit**"). As soon as practicable thereafter, shares of Stock so purchased will be placed, in book-entry form, into a record keeping account in the name of the Participant. No fractional shares will be purchased pursuant to the exercise of an Option under the Plan; any accumulated payroll deductions in a Participant's Account that are not sufficient to purchase a whole share will be retained in the Participant's Account for the subsequent Option Period, subject to earlier withdrawal by the Participant as provided in Section 13 hereof.

(b) *Return of Account Balance*. Except as provided in Section 10(a) with respect to fractional shares, any amount of payroll deductions in a Participant's Account that are not used for the purchase of shares of Stock, whether because of the Participant's withdrawal from participation in an Option Period or for any other reason, will be returned to the Participant (or his or her designated beneficiary or legal representative, as applicable), without interest, as soon as administratively practicable after such withdrawal or other event, as applicable. If the Participant's accumulated payroll deductions on the Exercise Date of an Option Period would otherwise enable the Participant to purchase shares of Stock in excess of the Maximum Share Limit or the maximum number of shares of Stock that may be purchased by a Participant pursuant to Section 6 of the Plan, the excess of the amount of the accumulated payroll deductions over the aggregate Purchase Price of the shares of Stock actually purchased will be returned to the Participant, without interest, as soon as administratively practicable after such Exercise Date.

11. **Interest**

No interest will be payable on any amount held in the Account of any Participant.

12. **Taxes**

Payroll deductions will be made on an after-tax basis. The Administrator will have the right to make such provision as it deems necessary for, and may condition the exercise of an Option on, the satisfaction of its obligations to withhold federal, state, local income or other taxes incurred by reason of the purchase or disposition of shares of Stock under the Plan. In the Administrator's discretion and subject to applicable law, such tax obligations may be paid in whole or in part by delivery of shares of Stock to the Company, including shares of Stock purchased under the Plan, valued at Fair Market Value, but not in excess of the minimum statutory amounts required to be withheld.

13. **Cancellation and Withdrawal**

(a) *Cancellation of Payroll Deduction Authorization and Withdrawal from Plan.* A Participant who holds an Option under the Plan may cancel all (but not less than all) of his or her Option and terminate his or her payroll deduction authorization by notice delivered to the Administrator in accordance with the procedures prescribed by, and in a form acceptable to, the Administrator. To be effective with respect to an upcoming Exercise Date, such cancellation notice must be delivered not later than fifteen (15) Business Days prior to such Exercise Date (or such other time as specified by the Administrator). Upon such termination and cancellation, the balance in the Participant's Account will be returned to the Participant, without interest, as soon as administratively practicable thereafter. For the avoidance of doubt, a Participant who reduces his or her withholding rate for a future Option Period or future payroll periods within an ongoing Option period to 0% pursuant to Section 7 of the Plan, will be deemed to have terminated his or her payroll deduction authorization and canceled his or her participation in future Option Periods, unless the Participant delivers a new payroll deduction authorization for a subsequent Option Period in accordance with the rules of Section 7(b) of the Plan.

(b) *401(k) Hardship Withdrawal.* To the extent required by applicable law, a Participant who makes a hardship withdrawal from a 401(k) Plan will be deemed to have terminated his or her payroll deduction authorization for subsequent payroll dates relating to the then current Option Period as of the date of such hardship withdrawal and amounts accumulated in the Participant's Account as of such date will be returned to the Participant, without interest, as soon as administratively practicable thereafter. To the extent required by applicable law, an Employee who has made a hardship withdrawal from a 401(k) Plan will not be permitted to participate in Option Periods commencing after the date of his or her hardship withdrawal until the first Option Period that begins at least six months after the date of his or her hardship withdrawal.

14. **Termination of Employment; Death of Participant**

Upon the termination of a Participant's employment with the Company or a Designated Subsidiary, as applicable, for any reason (including the death of a Participant during an Option Period prior to an Exercise Date) or in the event the Participant ceases to qualify as an Eligible Employee, the Participant will cease to be a Participant, any Option held by the Participant under the Plan will be canceled, the balance in the Participant's Account will be returned to the Participant (or his or her estate or designated beneficiary in the event of the Participant's death), without interest, as soon as administratively practicable thereafter, and the Participant will have no further rights under the Plan.

15. **Equal Rights; Participant's Rights Not Transferable**

All Participants granted Options in an offering under the Plan will have the same rights and privileges, consistent with the requirements set forth in Section 423 of the Code. Any Option granted under the Plan will be exercisable during the Participant's lifetime only by him or her and may not be sold, pledged, assigned, or transferred in any manner. In the event any Participant violates or attempts to violate the terms of this Section 15, as determined by the Administrator in its sole discretion, any Options held by the Participant under the Plan may be

terminated by the Company and, upon the return to the Participant of the balance of his or her Account, without interest, all of the Participant's rights under the Plan will terminate.

16. **Change in Capitalization; Corporate Transaction**

(a) *Change in Capitalization.* In the event of any change in the outstanding Stock by reason of a stock dividend, stock split, reverse stock split, split-up, recapitalization, merger, consolidation, reorganization, or other capital change, the aggregate number and type of shares of Stock available under the Plan, the number and type of shares of Stock granted under any outstanding Options, the Maximum Share Limit and the purchase price per share of Stock under any outstanding Option will be appropriately adjusted; *provided*, that any such adjustment shall be made in a manner that complies with Section 423 of the Code.

(b) *Corporate Transaction.* In the event of a sale of all or substantially all of the Stock or a sale of all or substantially all of the assets of the Company, or a merger or similar transaction in which the Company is not the surviving corporation or that results in the acquisition of the Company by another person, the Administrator may, in its discretion, (i) if the Company is merged with or acquired by another corporation, provide that each outstanding Option will be assumed or exchanged for a substitute Option granted by the acquiror or successor corporation or by a parent or subsidiary of the acquiror or successor corporation, (ii) cancel each outstanding Option and return the balances in Participants' Accounts to the Participants, without interest, and/or (iii) pursuant to Section 18 of the Plan, terminate the Option Period on or before the date of the proposed sale, merger or similar transaction.

17. **Administration of Plan**

The Plan will be administered by the Administrator, which will have the authority to interpret the Plan, determine eligibility under the Plan, prescribe forms, rules and procedures relating to the Plan and otherwise do all things necessary or appropriate to carry out the purposes of the Plan. All determinations and decisions by the Administrator regarding the interpretation or application of the Plan will be final and binding on all Participants and all persons.

The Administrator may specify the manner in which the Company and/or Employees are to provide notices and forms under the Plan, and may require that such notices and forms be submitted electronically.

18. **Amendment and Termination of Plan; Separate Offerings; Sub-Plans**

(a) *Amendment.* The Board reserves the right at any time or times to amend the Plan to any extent and in any manner it may deem advisable; *provided*, *however*, that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code will have no force or effect unless approved by the shareholders of the Company within 12 months before or after its adoption.

(b) *Termination.* The Board reserves the right at any time or times to suspend or terminate the Plan. In connection therewith, the Board may provide, in its sole discretion, either that outstanding Options will be exercisable either on the Exercise Date for the applicable Option Period or on such earlier date as the Board may specify (in which case such earlier date will be

treated as the Exercise Date for the applicable Option Period), or that the balance of each Participant's Account will be returned to the Participant, without interest.

(c) *Separate Offerings; Sub-Plans*. Notwithstanding the foregoing or any provision of this Plan to the contrary, consistent with the requirements of Section 423 of the Code, the Administrator may, in its sole discretion, amend the terms of the Plan, or an offering, and/or provide for separate offerings under this Plan in order to, among other things, reflect the impact of local law outside of the United States as applied to one or more Eligible Employees of a Designated Subsidiary and may, where appropriate, establish one or more sub-plans to reflect such amended provisions.

19. **Approvals**

Shareholder approval of the Plan will be obtained prior to the date that is twelve (12) months after the date of Board approval. In the event that the Plan has not been approved by the shareholders of the Company prior to the first anniversary of the Effective Date, all Options to purchase shares of Stock under the Plan will be cancelled and become null and void.

Notwithstanding anything herein to the contrary, the obligation of the Company to issue and deliver shares of Stock under the Plan will be subject to the approval required of any governmental authority in connection with the authorization, issuance, sale or transfer of such shares of Stock and to any requirements of any national securities exchange applicable thereto, and to compliance by the Company with other applicable legal requirements in effect from time to time.

20. **Participants' Rights as Shareholders and Employees**

A Participant will have no rights or privileges as a shareholder of the Company and will not receive any dividends in respect of any shares of Stock covered by an Option granted hereunder until such Option has been exercised, full payment has been made for such shares, and the shares have been issued to the Participant.

Nothing contained in the provisions of the Plan will be construed as giving to any Employee the right to be retained in the employ of the Company or any Designated Subsidiary or as interfering with the right of the Company or any Designated Subsidiary to discharge, promote, demote or otherwise re-assign any Employee from one position to another within the Company or any Designated Subsidiary at any time.

21. **Limitations on Dispositions; Information Regarding Disqualifying Dispositions.**

Shares of Stock purchased under the Plan may, as determined by the Administrator in its sole discretion, be subject to a holding period during which such shares may not be sold, transferred, withdrawn, or moved.

By electing to participate in the Plan, each Participant agrees to provide such information about any transfer of Stock acquired under the Plan that occurs within two years after the first day of the Option Period in which such Stock was acquired and within one year after the day

such Stock was purchased as may be requested by the Company or any Designated Subsidiary in order to assist it in complying with applicable tax laws.

22. **Governing Law**

The Plan will be governed by and administered in accordance with the laws of the Commonwealth of Massachusetts, and with the applicable requirements of the stock exchanges or other trading systems on which the Stock is listed or entered for trading and the Code, in each case as determined by the Administrator. Except as otherwise provided under a sub-plan described in Section 18(c) of the Plan or as provided in the first sentence of this Section 22, the domestic substantive laws of Massachusetts govern the provisions of the Plan or any Options under the Plan or relating to the subject matter hereof or thereof without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

23. **Effective Date and Term**

The Effective Date of the Plan will be the date of adoption of the Plan by the Board. No rights will be granted hereunder after the earliest to occur of (a) the Plan's termination by the Company, (b) the issuance of all shares of Stock available for issuance under the Plan or (c) the day before the 10-year anniversary of the date the Board approves the Plan.

EXHIBIT A
Definition of Terms

The following terms, when used in the Plan, will have the meanings and be subject to the provisions set forth below:

"401(k) Plan": A savings plan qualifying under Section 401(k) of the Code that is sponsored by the Company or one of its Subsidiaries for the benefit of its employees.

"Account": A payroll deduction account maintained in the Participant's name on the books of the Company.

"Administrator": The Compensation Committee of the Board, except that the Compensation Committee may delegate (i) to one or more members one or more of its members (or one or more other members of the Board, including the full Board) such of its duties, powers and responsibilities as it may determine and (ii) to such Employees or other persons as it determines such ministerial tasks as it deems appropriate. In the event of any delegation described in the preceding sentence, the term "Administrator" will include the person or persons so delegated to the extent of such delegation.

"Board": The Board of Directors of the Company.

"Business Day": Any day on which the established national exchange or trading system (including the Nasdaq Stock Market) on which the Stock is traded is available and open for trading.

"Code": The U.S. Internal Revenue Code of 1986, as from time to time amended and in effect, or any successor statute as from time to time in effect.

"Company": Cyclerion Therapeutics, Inc., a Massachusetts corporation.

"Designated Subsidiary": A Subsidiary of the Company that has been designated by the Board or the Compensation Committee of the Board from time to time as eligible to participate in the Plan as set forth on Exhibit B to the Plan. For the avoidance of doubt, any Subsidiary of the Company shall be eligible to be designated as a Designated Subsidiary hereunder.

"Effective Date": The date set forth in Section 23 of the Plan.

"Eligible Compensation": Compensation, as such term is defined in the Cyclerion Therapeutics, Inc. 401(k) Plan.

"Eligible Employee": Any Employee who meets the eligibility requirements set forth in Section 4 of the Plan.

"Employee": Any person who is employed by the Company or a Designated Subsidiary. For the avoidance of doubt, independent contractors and consultants are not "Employees".

"Exercise Date": The date set forth in Section 5 of the Plan or otherwise designated by the Administrator with respect to a particular Option Period on which a Participant will be deemed to have exercised the Option granted to him or her for such Option Period.

"Fair Market Value": As of a particular date, (i) the closing price for a share of Stock reported on the Nasdaq Stock Market (or any other national securities exchange on which the shares are then listed) for that date or, if no closing price is reported for that date, the closing price on the immediately preceding date on which a closing price was reported or (ii) in the event that the Stock is not traded on a national securities exchange, the fair market value of a share of Stock determined by the Administrator consistent with the rules of Section 422 of the Code and Section 409A of the Code to the extent applicable.

"Maximum Share Limit": The meaning set forth in Section 10 of the Plan.

"Option": An option granted pursuant to the Plan entitling the holder to acquire shares of Stock upon payment of the Purchase Price per share of Stock.

"Option Period": An offering period established in accordance with Section 5 of the Plan.

"Parent": A "parent corporation" as defined in Section 424(e) of the Code.

"Participant": An Eligible Employee who elects to enroll in the Plan.

"Plan": The Cyclerion Therapeutics, Inc. 2019 Employee Stock Purchase Plan, as from time to time amended and in effect.

"Purchase Price": The price per share of Stock with respect to an Option Period determined in accordance with Section 9 of the Plan.

"Stock": Common stock of the Company, par value $0.00 per share.

"Subsidiary": A "subsidiary corporation" as defined in Section 424(f) of the Code.

EXHIBIT B
Designated Subsidiaries

Designated Subsidiaries as of the date of adoption of the Plan by the Board are listed below:

N/A

CYCLERION THERAPEUTICS, INC.
2019 EQUITY INCENTIVE PLAN

1. DEFINED TERMS

Exhibit A, which is incorporated by reference, defines the terms used in the Plan and includes certain operational rules related to those terms.

2. PURPOSE

The Plan has been established to advance the interests of the Company by providing for the grant to Participants of Stock, Stock-based and other incentive Awards.

3. ADMINISTRATION

The Administrator has discretionary authority, subject only to the express provisions of the Plan, to interpret the Plan; determine eligibility for and grant Awards; determine, modify or waive the terms and conditions of any Award; determine the form of settlement of Awards (whether in cash, shares of Stock, or other property); prescribe forms, rules and procedures relating to the Plan and Awards; and otherwise do all things necessary or desirable to carry out the purposes of the Plan. Determinations of the Administrator made under the Plan are conclusive and bind all persons.

4. LIMITS ON AWARDS UNDER THE PLAN

(a) Number of Shares. Subject to adjustment as provided in Section 7(b), the maximum number of shares of Stock that may be issued in satisfaction of Awards under the Plan is 2,500,000 shares, plus (1) an annual increase to be added on the date of each annual meeting of the stockholders of the Company, beginning with the first annual meeting of stockholders following the Date of Adoption and ending with the ninth annual meeting of stockholders following the Date of Adoption, equal to the lesser of (i) four percent (4%) of the number of shares of Stock outstanding on a fully diluted basis as of the close of business on the immediately preceding business day (calculated by adding to the number of shares of Stock outstanding, all outstanding securities convertible into Stock on such date on an as converted basis) and (ii) an amount determined by the Administrator on or prior to the date of such annual meeting of stockholders and (2) any shares of Stock underlying awards granted under the Company's Amended and Restated 2005 Stock Incentive Plan or the Company's Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan that are forfeited, expired or are cancelled without the delivery of shares of Stock thereunder. Up to the total number of shares of Stock set forth in the preceding sentence may be issued in satisfaction of ISOs, but nothing in this Section 4(a) will be construed as requiring that any, or any fixed number of, ISOs be awarded under the Plan. For purposes of this Section 4(a), the number of shares of Stock issued in satisfaction of Awards will be determined by excluding (i) shares of Stock withheld by the Company in payment of the exercise price or purchase price of the Award or in satisfaction of tax withholding requirements with respect to the Award, (ii) the full number of shares covered by a SAR any portion of which is settled in Stock (and not only the number of shares of Stock delivered in settlement), and (iii) any shares of Stock underlying Awards settled in cash or that expire, become unexercisable, terminate or are forfeited to or repurchased by the Company without the issuance of Stock. For

the avoidance of doubt, the number of shares of Stock available for delivery under the Plan will not be increased by any shares of Stock delivered under the Plan that are subsequently repurchased using proceeds directly attributable to Stock Option exercises. The limits set forth in this Section 4(a) will be construed to comply with Section 422.

(b) Substitute Awards. The Administrator may grant Substitute Awards under the Plan. To the extent consistent with the requirements of Section 422 and the regulations thereunder and other applicable legal requirements (including applicable stock exchange requirements), Stock issued under Substitute Awards will be in addition to and will not reduce the number of shares available for Awards under the Plan set forth in Section 4(a), but, notwithstanding anything in Section 4(a) to the contrary, if any Substitute Award is settled in cash or expires, becomes unexercisable, terminates or is forfeited to or repurchased by the Company without the issuance of Stock, the shares of Stock previously subject to such Award will not be available for future grants under the Plan. The Administrator will determine the extent to which the terms and conditions of the Plan apply to Substitute Awards, if at all, *provided, however*, that Substitute Awards will not be subject to the per-Participant Award limits described in Section 4(d) below.

(c) Type of Shares. Stock delivered by the Company under the Plan may be authorized but unissued Stock, treasury Stock or previously issued Stock acquired by the Company. No fractional shares of Stock will be delivered under the Plan.

(d) Individual Limit.

(1) Awards comprising no more than 1,000,000 shares of Stock may be granted to any person under the Plan in any calendar year. In applying the foregoing limit, (i) all Awards granted to the same person in the same calendar year are aggregated and made subject to one limit; (ii) the limit as applicable to Stock Options and SARs refers to the number of shares of Stock underlying those Awards; and (iii) the share limit as applicable to Awards other than Stock Options and SARs refers to the maximum number of shares of Stock that may be delivered, or the value of which could be paid in cash or other property, under an Award or Awards assuming a maximum payout.

(2) Notwithstanding the foregoing limit, the aggregate value of all compensation granted or paid to any Director with respect to any calendar year, including Awards granted under the Plan and cash fees or other compensation paid by the Company to such Director outside of the Plan for his or her services as a Director during such calendar year, may not exceed $400,000 in the aggregate, calculating the value of any Awards based on the grant date fair value in accordance with the Accounting Rules, assuming a maximum payout. To the extent applicable, the foregoing provisions will be construed in a manner consistent with Section 162(m), including, without limitation, where applicable, the rules under Section 162(m) pertaining to permissible deferrals of exempt awards.

5. ELIGIBILITY AND PARTICIPATION

The Administrator shall select Participants from among key Employees and Directors of, and consultants and advisors to, the Company and its subsidiaries. Eligibility for ISOs is limited

to individuals described in the first sentence of this Section 5 who are employees of the Company or of a "parent corporation" or "subsidiary corporation" of the Company as those terms are defined in Section 424 of the Code. Eligibility for Stock Options, other than ISOs, and SARs is limited to individuals described in the first sentence of this Section 5 who are providing direct services on the date of grant of the Award to the Company or to a subsidiary of the Company that would be described in the first sentence of Treas. Regs. §1.409A-1(b)(5)(iii)(E).

6. RULES APPLICABLE TO AWARDS

(a) All Awards.

(1) Award Provisions. The Administrator shall determine the terms of all Awards, subject to the limitations provided herein. By accepting (or, under such rules as the Administrator may prescribe, being deemed to have accepted) an Award, the Participant will be deemed to have agreed to the terms of the Award and the Plan. Notwithstanding any provision of this Plan to the contrary, Substitute Awards may contain terms and conditions that are inconsistent with the terms and conditions specified herein, as determined by the Administrator.

(2) Term of Plan. No Awards may be made after 10 years from the Date of Adoption, but previously granted Awards may continue beyond that date in accordance with their terms.

(3) Transferability. Neither ISOs nor, except as the Administrator otherwise expressly provides in accordance with the third sentence of this Section 6(a)(3), other Awards may be transferred other than by will or by the laws of descent and distribution. During a Participant's lifetime, ISOs and, except as the Administrator otherwise expressly provides in accordance with the third sentence of this Section 6(a)(3), SARs and NSOs may be exercised only by the Participant. The Administrator may permit the gratuitous transfer (*i.e.*, transfer not for value) of Awards other than ISOs, subject to applicable securities and other laws and such limitations as the Administrator may impose.

(4) Vesting. The Administrator shall determine the time or times at which an Award vests or becomes exercisable and the terms on which a Stock Option or SAR remains exercisable. Without limiting the foregoing, the Administrator may at any time accelerate the vesting or exercisability of an Award, regardless of any adverse or potentially adverse tax or other consequences resulting from such acceleration. Unless the Administrator expressly provides otherwise, however, the following rules will apply if a Participant's Employment ceases:

(A) Except as provided in (B) and (C) below, immediately upon the cessation of the Participant's Employment each Stock Option and SAR that is then held by the Participant or by the Participant's permitted transferees, if any, will cease to be exercisable and will terminate and all other Awards that are then held by the Participant or by the Participant's permitted transferees, if any, to the extent not already vested will be forfeited.

(B) Subject to (C) and (D) below, all Stock Options and SARs held by the Participant or the Participant's permitted transferees, if any, immediately prior to the

cessation of the Participant's Employment, to the extent then exercisable, will remain exercisable for the lesser of (i) a period of three months or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon immediately terminate.

(C) Subject to (D) below, all Stock Options and SARs held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Employment due to death or Disability, to the extent then exercisable, will remain exercisable for the lesser of (i) the one year period ending with the first anniversary of the Participant's cessation of Employment or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon immediately terminate. In addition, if the Participant's Employment ceases for any reason other than pursuant to (D) below and in the three months following such cessation of Employment the Participant dies or experiences a Disability, the exercisability of all Stock Options and SARs held by the Participant or the Participant's permitted transferees, if any, will automatically be extended upon such event and will remain exercisable for the lesser of (i) the one year period ending with the first anniversary of the Participant's cessation of Employment or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon immediately terminate.

(D) All Stock Options and SARs (whether or not exercisable) held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Employment will immediately terminate upon such cessation of Employment if the termination is for Cause or occurs in circumstances that in the determination of the Administrator would have constituted grounds for the Participant's Employment to be terminated for Cause.

(5) **Recovery of Compensation**. The Administrator may provide in any case that outstanding Awards (whether or not vested or exercisable) and the proceeds from the exercise or disposition of Awards or Stock acquired under Awards will be subject to forfeiture and disgorgement to the Company, with interest and other related earnings, if the Participant to whom the Award was granted violates (i) a non-competition, non-solicitation, no-hire, non-disparagement, confidentiality, invention assignment or other restrictive covenant by which he or she is bound, or (ii) any Company policy applicable to the Participant that provides for forfeiture or disgorgement with respect to incentive compensation that includes Awards under the Plan. In addition, the Administrator may require forfeiture and disgorgement to the Company of outstanding Awards and the proceeds from the exercise or disposition of Awards or Stock acquired under Awards, with interest and other related earnings, to the extent required by law or applicable stock exchange listing standards, including, without limitation, Section 10D of the Securities Exchange Act of 1934, as amended, and any related Company policy. Each Participant, by accepting or being deemed to have accepted an Award under the Plan, agrees to cooperate fully with the Administrator, and to cause any and all permitted transferees of the Participant to cooperate fully with the Administrator, to effectuate any forfeiture or disgorgement required hereunder. Neither the Administrator nor the Company nor any other person, other than the Participant and his or her permitted transferees, if any, will be responsible for any adverse tax or other consequences to a Participant or his or her permitted transferees, if any, that may arise in connection with this Section 6(a)(5).

(6) **Taxes.** The delivery, vesting and retention of Stock, cash or other property under an Award are conditioned upon full satisfaction by the Participant of all tax withholding requirements with respect to the Award. The Administrator shall prescribe such rules for the withholding of taxes with respect to any Award as it deems necessary. The Administrator may hold back shares of Stock from an Award or permit a Participant to tender previously owned shares of Stock in satisfaction of tax withholding requirements (but not in

excess of the maximum withholding amount consistent with the award being subject to equity accounting treatment under the Accounting Rules).

(7) Dividends and Dividend Equivalents. The Administrator may provide for the payment of amounts (on terms and subject to conditions established by the Administrator) in lieu of cash dividends or other cash distributions with respect to Stock subject to an Award whether or not the holder of such Award is otherwise entitled to share in the actual dividend or distribution in respect of such Award; *provided*, *however*, that (a) dividends or dividend equivalents relating to an Award that, at the dividend payment date, remains subject to a risk of forfeiture (whether service-based or performance-based) shall be subject to the same risk of forfeiture as applies to the underlying Award and (b) no dividends or dividend equivalents shall be payable with respect to Options or SARs. Any entitlement to dividend equivalents or similar entitlements will be established and administered either consistent with an exemption from, or in compliance with, the requirements of Section 409A. Dividends or dividend equivalent amounts payable in respect of Awards that are subject to restrictions may be subject to such limits or restrictions as the Administrator may impose.

(8) Rights Limited. Nothing in the Plan may be construed as giving any person the right to be granted an Award or to continued employment or service with the Company or any of its subsidiaries, or any rights as a stockholder except as to shares of Stock actually issued under the Plan. The loss of existing or potential profit in Awards will not constitute an element of damages in the event of termination of Employment for any reason, even if the termination is in violation of an obligation of the Company or any of its subsidiaries to the Participant.

(9) Section 162(m). To the extent applicable, Awards granted under this Plan are intended to be eligible for exemption from the limitations of Section 162(m) by reason of the post-initial public offering transition relief set forth in Section 1.162-27(f) of the Treasury Regulations.

(10) Coordination with Other Plans. Awards under the Plan may be granted in tandem with, or in satisfaction of or substitution for, other Awards under the Plan or awards made under other compensatory plans or programs of the Company or any of its subsidiaries. For example, but without limiting the generality of the foregoing, awards under other compensatory plans or programs of the Company or any of its subsidiaries may be settled in Stock (including, without limitation, Unrestricted Stock) under the Plan if the Administrator so determines, in which case the shares delivered will be treated as awarded under the Plan (and will reduce the number of shares thereafter available under the Plan in accordance with the rules set forth in Section 4).

(11) Section 409A.

(A) Without limiting the generality of Section 11(b) hereof, each Award will contain such terms as the Administrator determines and will be construed and administered, such that the Award either qualifies for an exemption from the requirements of Section 409A or satisfies such requirements.

(B) Notwithstanding Section 9 of this Plan or any other provision of this Plan or any Award agreement to the contrary, the Administrator may unilaterally amend, modify or terminate the Plan or any outstanding Award, including but not limited to changing the form of the Award, if the Administrator determines that such amendment, modification or termination is necessary or advisable to avoid the imposition of an additional tax, interest or penalty under Section 409A.

(C) If a Participant is deemed on the date of the Participant's termination of Employment to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B), then, with regard to any payment that is considered nonqualified deferred compensation under Section 409A, to the extent applicable, payable on account of a "separation from service", such payment will be made or provided on the date that is the earlier of (i) the expiration of the six-month period measured from the date of such "separation from service" and (ii) the date of the Participant's death (the "Delay Period"). Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 6(a)(11)(C) (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such delay) will be paid on the first business day following the expiration of the Delay Period in a lump sum and any remaining payments due under the Award will be paid in accordance with the normal payment dates specified for them in the applicable Award agreement.

(D) For purposes of Section 409A, each payment made under this Plan will be treated as a separate payment.

(E) With regard to any payment considered to be nonqualified deferred compensation under Section 409A, to the extent applicable, that is payable upon a change in control of the Company or other similar event, to avoid the imposition of an additional tax, interest or penalty under Section 409A, no amount will be payable unless such change in control constitutes a "change in control event" within the meaning of Section 1.409A-3(i)(5) of the Treasury Regulations.

(b) Stock Options and SARs.

(1) Time and Manner of Exercise. Unless the Administrator expressly provides otherwise, no Stock Option or SAR will be deemed to have been exercised until the Administrator receives notice of exercise in a form acceptable to the Administrator that is signed by the appropriate person and accompanied by any payment required under the Award. Any attempt to exercise a Stock Option or SAR by any person other than the Participant will not be given effect unless the Administrator has received such evidence as it may require that the person exercising the Award has the right to do so.

(2) Exercise Price. The exercise price (or the base value from which appreciation is to be measured) of each Award requiring exercise must be no less than 100% (in the case of an ISO granted to a 10-percent stockholder within the meaning of subsection (b)(6) of Section 422, 110%) of the Fair Market Value of the Stock subject to the Award, determined as of

the date of grant, or such higher amount as the Administrator may determine in connection with the grant.

(3) Payment of Exercise Price. Where the exercise of an Award is to be accompanied by payment, payment of the exercise price must be by cash or check acceptable to the Administrator or, if so permitted by the Administrator and if legally permissible, (i) through the delivery of previously acquired unrestricted shares of Stock, or the withholding of unrestricted shares of Stock otherwise deliverable upon exercise, in either case that have a Fair Market Value equal to the exercise price, (ii) through a broker-assisted exercise program acceptable to the Administrator, (iii) by other means acceptable to the Administrator, or (iv) by any combination of the foregoing permissible forms of payment. The delivery of previously acquired shares in payment of the exercise price under clause (i) above may be accomplished either by actual delivery or by constructive delivery through attestation of ownership, subject to such rules as the Administrator may prescribe.

(4) Maximum Term. The maximum term of Stock Options and SARs must not exceed 10 years from the date of grant (or five years from the date of grant in the case of an ISO granted to a 10-percent stockholder described in Section 6(b)(2) above).

(5) No Repricing. Except in connection with a corporate transaction involving the Company (which term includes, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination or exchange of shares) or as otherwise contemplated by Section 7 below, the Company may not, without obtaining stockholder approval, (A) amend the terms of outstanding Stock Options or SARs to reduce the exercise price or base value of such Stock Options or SARs, (B) cancel outstanding Stock Options or SARs in exchange for Stock Options or SARs with an exercise price or base value that is less than the exercise price or base value of the original Stock Options or SARs, or (C) cancel outstanding Stock Options or SARs that have an exercise price or base value greater than the Fair Market Value of a share of Stock on the date of such cancellation in exchange for cash or other consideration.

7. EFFECT OF CERTAIN TRANSACTIONS

(a) Covered Transactions. Except as otherwise expressly provided in an Award agreement or by the Administrator, the following provisions will apply in the event of a Covered Transaction:

(1) Assumption or Substitution. If the Covered Transaction is one in which there is an acquiring or surviving entity, the Administrator may provide for (A) the assumption or continuation of some or all outstanding Awards or any portion thereof or (B) the grant of new awards in substitution therefor by the acquiror or survivor or an affiliate of the acquiror or survivor.

(2) Cash-Out of Awards. Subject to Section 7(a)(5) below, the Administrator may provide for payment (a "cash-out"), with respect to some or all Awards or any portion thereof, equal in the case of each affected Award or portion thereof to the excess, if any, of (A) the Fair Market Value of one share of Stock times the number of shares of Stock

subject to the Award or such portion, over (B) the aggregate exercise or purchase price, if any, under the Award or such portion (in the case of a SAR, the aggregate base value above which appreciation is measured), in each case on such payment terms (which need not be the same as the terms of payment to holders of Stock) and other terms, and subject to such conditions, as the Administrator determines; *provided, however*, for the avoidance of doubt, that if the exercise or purchase price (or base value) of an Award is equal to or greater than the Fair Market Value of one share of Stock, the Award may be cancelled with no payment due hereunder or otherwise in respect of such Award.

(3) Acceleration of Certain Awards. Subject to Section 7(a)(5) below, the Administrator may provide that any Award requiring exercise will become exercisable, in full or in part, and/or that the delivery of any shares of Stock remaining deliverable under any outstanding Award of Stock Units (including Restricted Stock Units and Performance Awards to the extent consisting of Stock Units) will be accelerated, in full or in part, in each case on a basis that gives the holder of the Award a reasonable opportunity, as determined by the Administrator, following exercise of the Award or the delivery of the shares, as the case may be, to participate as a stockholder in the Covered Transaction.

(4) Termination of Awards upon Consummation of a Covered Transaction. Except as the Administrator may otherwise determine in any case, each Award will automatically terminate (and in the case of outstanding shares of Restricted Stock, will automatically be forfeited) immediately upon consummation of the Covered Transaction, other than any Award that is assumed or substituted pursuant to Section 7(a)(1) above.

(5) Additional Limitations. Any share of Stock and any cash or other property or other award delivered pursuant to Section 7(a)(1), Section 7(a)(2) or Section 7(a)(3) above with respect to an Award may, in the discretion of the Administrator, contain such restrictions, if any, as the Administrator deems appropriate to reflect any performance or other vesting conditions to which the Award was subject and that did not lapse (and were not satisfied) in connection with the Covered Transaction. For purposes of the immediately preceding sentence, a cash-out under Section 7(a)(2) above or an acceleration under Section 7(a)(3) above will not, in and of itself, be treated as the lapsing (or satisfaction) of a performance or other vesting condition. In the case of Restricted Stock that does not vest and is not forfeited in connection with the Covered Transaction, the Administrator may require that any amounts delivered, exchanged or otherwise paid in respect of such Stock in connection with the Covered Transaction be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan.

(b) Changes in and Distributions with Respect to Stock.

(1) Basic Adjustment Provisions. In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization or other change in the Company's capital structure that constitutes an equity restructuring within the meaning of the Accounting Rules, the Administrator shall make appropriate adjustments to the maximum number of shares of Stock specified in Section 4(a) that may be issued under the Plan and to the maximum share limits described in Section 4(d), and shall make appropriate adjustments to the number and kind of shares of stock or securities underlying Awards then outstanding or

subsequently granted, any exercise or purchase prices (or base values) relating to Awards and any other provision of Awards affected by such change.

(2) Certain Other Adjustments. The Administrator may also make adjustments of the type described in Section 7(b)(1) above to take into account distributions to stockholders other than those provided for in Section 7(a) and 7(b)(1), or any other event, if the Administrator determines that adjustments are appropriate to avoid distortion in the operation of the Plan, having due regard for the qualification of ISOs under Section 422 and the requirements of Section 409A, to the extent applicable.

(3) Continuing Application of Plan Terms. References in the Plan to shares of Stock will be construed to include any stock or securities resulting from an adjustment pursuant to this Section 7.

8. LEGAL CONDITIONS ON DELIVERY OF STOCK

The Company will not be obligated to deliver any shares of Stock pursuant to the Plan or to remove any restriction from shares of Stock previously delivered under the Plan until: (i) the Company is satisfied that all legal matters in connection with the issuance and delivery of such shares have been addressed and resolved; (ii) if the outstanding Stock is at the time of delivery listed on any stock exchange or national market system, the shares to be delivered have been listed or authorized to be listed on such exchange or system upon official notice of issuance; and (iii) all conditions of the Award have been satisfied or waived. The Company may require, as a condition to the exercise of an Award or the delivery of shares of Stock under an Award, such representations or agreements as counsel for the Company may consider appropriate to avoid violation of the Securities Act of 1933, as amended, or any applicable state or non-U.S. securities law. Any Stock required to be issued to Participants under the Plan will be evidenced in such manner as the Administrator may deem appropriate, including book-entry registration or delivery of stock certificates. In the event that the Administrator determines that stock certificates will be issued to Participants under the Plan, the Administrator may require that certificates evidencing Stock issued under the Plan bear an appropriate legend reflecting any restriction on transfer applicable to such Stock, and the Company may hold the certificates pending lapse of the applicable restrictions.

9. AMENDMENT AND TERMINATION

The Administrator may at any time or times amend the Plan or any outstanding Award for any purpose which may at the time be permitted by law, and may at any time terminate the Plan as to any future grants of Awards; *provided*, *however*, that except as otherwise expressly provided in the Plan the Administrator may not, without the Participant's consent, alter the terms of an Award so as to affect materially and adversely the Participant's rights under the Award, unless the Administrator expressly reserved the right to do so at the time the Award was granted. Any amendments to the Plan will be conditioned upon stockholder approval only to the extent, if any, such approval is required by law (including the Code) or applicable stock exchange requirements, as determined by the Administrator.

10. OTHER COMPENSATION ARRANGEMENTS

The existence of the Plan or the grant of any Award will not affect the Company's right to award a person bonuses or other compensation in addition to Awards under the Plan.

11. MISCELLANEOUS

(a) Waiver of Jury Trial. By accepting or being deemed to have accepted an Award under the Plan, each Participant waives any right to a trial by jury in any action, proceeding or counterclaim concerning any rights under the Plan and any Award, or under any amendment, waiver, consent, instrument, document or other agreement delivered or which in the future may be delivered in connection therewith, and agrees that any such action, proceedings or counterclaim will be tried before a court and not before a jury. By accepting or being deemed to have accepted an Award under the Plan, each Participant certifies that no officer, representative, or attorney of the Company has represented, expressly or otherwise, that the Company would not, in the event of any action, proceeding or counterclaim, seek to enforce the foregoing waivers. Notwithstanding anything to the contrary in the Plan, nothing herein is to be construed as limiting the ability of the Company and a Participant to agree to submit disputes arising under the terms of the Plan or any Award made hereunder to binding arbitration or as limiting the ability of the Company to require any eligible individual to agree to submit such disputes to binding arbitration as a condition of receiving an Award hereunder.

(b) Limitation of Liability. Notwithstanding anything to the contrary in the Plan, neither the Company, nor any of its subsidiaries, nor the Administrator, nor any person acting on behalf of the Company, any of its subsidiaries, or the Administrator, will be liable to any Participant, to any permitted transferee, to the estate or beneficiary of any Participant or any permitted transferee, or to any other holder of an Award by reason of any acceleration of income, or any additional tax (including any interest and penalties), asserted by reason of the failure of an Award to satisfy the requirements of Section 422 or Section 409A or by reason of Section 4999 of the Code, or otherwise asserted with respect to the Award.

12. ESTABLISHMENT OF SUB-PLANS

The Administrator may at any time and from time to time establish one or more sub-plans under the Plan (for local-law compliance purposes or other administrative reasons determined by the Administrator) by adopting supplements to the Plan containing, in each case, such limitations on the Administrator's discretion under the Plan, and such additional terms and conditions, as the Administrator deems necessary or desirable. Each supplement so established will be deemed to be part of the Plan but will apply only to Participants within the group to which the supplement applies (as determined by the Administrator).

13. GOVERNING LAW

(a) Certain Requirements of Corporate Law. Awards will be granted and administered consistent with the requirements of applicable Massachusetts law relating to the issuance of stock and the consideration to be received therefor, and with the applicable requirements of the stock exchanges or other trading systems on which the Stock is listed or entered for trading, in each case as determined by the Administrator.

(b) Other Matters. Except as otherwise provided by the express terms of an Award agreement, under a sub-plan described in Section 12 or as provided in Section 13(a) above, the domestic substantive laws of the Commonwealth of Massachusetts govern the provisions of the Plan and of Awards under the Plan and all claims or disputes arising out of or based upon the Plan or any Award under the Plan or relating to the subject matter hereof or thereof without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

(c) Jurisdiction. By accepting an Award, each Participant will be deemed to (a) have submitted irrevocably and unconditionally to the jurisdiction of the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon the Plan or any Award; (b) agree not to commence any suit, action or other proceeding arising out of or based upon the Plan or an Award, except in the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts; and (c) waive, and agree not to assert, by way of motion as a defense or otherwise, in any such suit, action or proceeding, any claim that he or she is not subject personally to the jurisdiction of the above-named courts that his or her property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that the Plan or an Award or the subject matter thereof may not be enforced in or by such court.

EXHIBIT A

Definition of Terms

The following terms, when used in the Plan, have the meanings and are subject to the provisions set forth below:

"Accounting Rules": Financial Accounting Standards Board Accounting Standards Codification Topics 505 and 718, as applicable, or any successor provision.

"Administrator": The Compensation Committee, except that the Compensation Committee may delegate (i) to one or more of its members (or one or more other members of the Board, including the full Board) such of its duties, powers and responsibilities as it may determine; and (ii) to such Employees or other persons as it determines such ministerial tasks as it deems appropriate. In the event of any delegation described in the preceding sentence, the term "Administrator" will include the person or persons so delegated to the extent of such delegation.

"Award": Any or a combination of the following:

(i) Stock Options.

(ii) SARs.

(iii) Restricted Stock.

(iv) Unrestricted Stock.

(v) Stock Units, including Restricted Stock Units.

(vi) Performance Awards.

(vii) Awards (other than Awards described in (i) through (vi) above) that are convertible into or otherwise based on Stock.

"Board": The Board of Directors of the Company.

"Cause": In the case of any Participant who is party to an employment or severance-benefit agreement that contains a definition of "Cause," the definition set forth in such agreement applies with respect to such Participant for purposes of the Plan for so long as such agreement is in effect. In every other case, "Cause" means, as determined by the Administrator, (i) a substantial failure of the Participant to perform the Participant's duties and responsibilities to the Company or any of its subsidiaries or substantial negligence in the performance of such duties and responsibilities; (ii) the commission by the Participant of a felony or a crime involving moral turpitude; (iii) the commission by the Participant of theft, fraud, embezzlement, breach of trust or any act of dishonesty involving the Company or any of its subsidiaries; (iv) a significant violation by the Participant of the code of conduct of the Company or any of its subsidiaries of any material policy of the Company or any of its subsidiaries, or of any statutory or common law

duty of loyalty to the Company or any of its subsidiaries; (v) breach of any of the terms of the Plan or any Award made under the Plan, or of the terms of any other agreement between the Company or any of its subsidiaries and the Participant; or (vi) other conduct by the Participant that could be expected to be harmful to the business, interests or reputation of the Company.

"Code": The U.S. Internal Revenue Code of 1986, as from time to time amended and in effect, or any successor statute as from time to time in effect.

"Compensation Committee": The Compensation Committee of the Board.

"Company": Cyclerion Therapeutics, Inc., a Massachusetts corporation.

"Covered Transaction": Any of (i) a consolidation, merger or similar transaction or series of related transactions, including a sale or other disposition of stock, in which the Company is not the surviving corporation or which results in the acquisition of all or substantially all of the Company's then outstanding common stock by a single person or entity or by a group of persons and/or entities acting in concert, (ii) a sale or transfer of all or substantially all the Company's assets, or (iii) a dissolution or liquidation of the Company. Where a Covered Transaction involves a tender offer that is reasonably expected to be followed by a merger described in clause (i) (as determined by the Administrator), the Covered Transaction will be deemed to have occurred upon consummation of the tender offer.

"Date of Adoption": The earlier of the date the Plan was approved by the Company's stockholders or adopted by the Board, as determined by the Committee.

"Director": A member of the Board who is not an Employee.

"Disability": A disability that would entitle the Participant to long-term disability benefits under the Company's long-term disability plan in which the Participant participates. If a Participant does not participate in a long-term disability plan of the Company, Disability means a permanent and total disability as defined in Section 22(e)(3) of the Code.

"Employee": Any person who is employed by the Company or any of its subsidiaries.

"Employment": A Participant's employment or other service relationship with the Company or any of its subsidiaries. Employment will be deemed to continue, unless the Administrator expressly provides otherwise, so long as the Participant is employed by, or otherwise is providing services in a capacity described in Section 5 to, the Company or any of its subsidiaries. If a Participant's employment or other service relationship is with any subsidiary of the Company and that entity ceases to be a subsidiary of the Company, the Participant's Employment will be deemed to have terminated when the entity ceases to be a subsidiary of the Company unless the Participant transfers Employment to the Company or any of its remaining subsidiaries. Notwithstanding the foregoing, in construing the provisions of any Award relating to the payment of "nonqualified deferred compensation" (subject to Section 409A) upon a termination or cessation of Employment, references to termination or cessation of employment, separation from service, retirement or similar or correlative terms will be construed to require a "separation from service" (as that term is defined in Section 1.409A-1(h) of the Treasury Regulations) from the Company and from all other corporations and trades or businesses, if any, that would be treated as a single "service recipient" with the Company under Section 1.409A-1(h)(3) of the Treasury Regulations. The Company may, but need not, elect in writing, subject to the applicable limitations under Section 409A, any of the special elective rules prescribed in Section 1.409A-1(h) of the Treasury Regulations for purposes of determining whether a

"separation from service" has occurred. Any such written election will be deemed a part of the Plan.

"Fair Market Value": As of a particular date, (i) the closing price for a share of Stock reported on the Nasdaq Stock Market (or any other national securities exchange on which the Stock is then listed) for that date or, if no closing price is reported for that date, the closing price on the immediately preceding date on which a closing price was reported or (ii) in the event that the Stock is not traded on a national securities exchange, the fair market value of a share of Stock determined by the Administrator consistent with the rules of Section 422 and Section 409A to the extent applicable.

"ISO": A Stock Option intended to be an "incentive stock option" within the meaning of Section 422. Each Stock Option granted pursuant to the Plan will be treated as providing by its terms that it is to be an NSO unless, as of the date of grant, it is expressly designated as an ISO.

"NSO": A Stock Option that is not intended to be an "incentive stock option" within the meaning of Section 422.

"Participant": A person who is granted an Award under the Plan.

"Performance Award": An Award subject to Performance Criteria.

"Performance Criteria": Specified criteria, other than the mere continuation of Employment or the mere passage of time, the satisfaction of which is a condition for the grant, exercisability, vesting or full enjoyment of an Award. A Performance Criterion and any targets with respect thereto need not be based upon an increase, a positive or improved result or avoidance of loss and may be applied to the Participant individually, or to a business unit or division or the Company as a whole and may relate to any or any combination of the following (measured either absolutely or by reference to an index or indices or the performance of one or more companies and determined either on a consolidated basis or, as the context permits, on a divisional, subsidiary, line of business, project or geographical basis or in combinations thereof): achievement of research, clinical trial or other drug development objectives; achievement of regulatory objectives; achievement of manufacturing and/or supply chain objectives; sales; revenues; assets; expenses; earnings before or after deduction for all or any portion of interest, taxes, depreciation, or amortization, whether or not on a continuing operations or an aggregate or per share basis; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow; stock price; stockholder return; sales of particular products or services; customer acquisition or retention; acquisitions and divestitures (in whole or in part); joint ventures, licenses and strategic alliances; spin-offs, split-ups and the like; reorganizations; or recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings. The Administrator may provide that one or more of the Performance Criteria applicable to such Award will be adjusted to reflect events (including, but not limited to, the impact of charges for restructurings, discontinued operations, mergers, acquisitions, extraordinary items, and other unusual or non-recurring items, and the cumulative effects of tax or accounting changes, each as defined by U.S. generally accepted accounting principles) occurring during the applicable performance period that affect the applicable Performance Criterion or Criteria.

"Plan": The Cyclerion Therapeutics, Inc. 2019 Incentive Plan, as from time to time amended and in effect.

"Restricted Stock": Stock subject to restrictions requiring that it be forfeited, redelivered or offered for sale to the Company if specified service or performance-based conditions are not satisfied.

"Restricted Stock Unit": A Stock Unit that is, or as to which the delivery of Stock or cash in lieu of Stock is, subject to the satisfaction of specified performance or other vesting conditions.

"SAR": A right entitling the holder upon exercise to receive an amount (payable in cash or in shares of Stock of equivalent value) equal to the excess of the Fair Market Value of the shares of Stock subject to the right over the base value from which appreciation under the SAR is to be measured.

"Section 409A": Section 409A of the Code.

"Section 422": Section 422 of the Code.

"Section 162(m)": Section 162(m) of the Code.

"Stock": Common stock of the Company, par value $0.00 per share.

"Stock Option": An option entitling the holder to acquire shares of Stock upon payment of the exercise price.

"Stock Unit": An unfunded and unsecured promise, denominated in shares of Stock, to deliver Stock or cash measured by the value of Stock in the future.

"Substitute Awards": Awards issued under the Plan in substitution for equity awards of an acquired company that are converted, replaced or adjusted in connection with the acquisition.

"Unrestricted Stock": Stock not subject to any restrictions under the terms of the Award.

Name:	**[•]**
Number of Shares of Stock subject to the Stock Option:	**[•]**
Type of Stock Option (NSO/ISO):	**[•]**
Exercise Price Per Share:	**$[•]**
Date of Grant:	**[•]**
Vesting Commencement Date	**[•]**

CYCLERION THERAPEUTICS
2019 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

This agreement (this "**Agreement**") evidences a stock option granted by Cyclerion Therapeutics, Inc. (the "**Company**") to the individual named above (the "**Participant**"), pursuant to and subject to the terms of the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan (as amended from time to time, the "**Plan**"). Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan.

1. Grant of Stock Option. The Company grants to the Participant on the date set forth above (the "**Date of Grant**") an option (the "**Stock Option**") to purchase, pursuant to and subject to the terms set forth in this Agreement and in the Plan, up to the number of shares of Stock set forth above (the "**Shares**") with an exercise price per Share as set forth above, in each case subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof. If the "Type of Stock Option" is designated above as an "NSO," the Stock Option evidenced by this Agreement is a non-statutory option (that is, an option that does not qualify as an incentive stock option under Section 422 of the Code).

If the "Type of Stock Option" is designated above as an "ISO," the Stock Option evidenced by this Agreement is intended to be treated as an incentive stock option (that is, an option that qualifies as in incentive stock option under Section 422 of the Code) to the maximum extent provided under the Code. To the extent the Stock Option does not qualify as an ISO, the Stock Option will be treated as an NSO. The Participant acknowledges and agrees that the Administrator may take any action permitted under the Plan without regard to the effect such action or actions may have on the status of the Stock Option as an ISO and that such action or actions may cause the Stock Option to fail to be treated as an ISO. Notwithstanding the foregoing, to the extent that the aggregate Fair Market Value (determined at the time of grant) of the Shares subject to the Stock Option and all other ISOs the Participant holds that are exercisable for the first time during any calendar year (under all plans of the Company and its subsidiaries) exceeds $100,000, the stock options held by the Participant or portions thereof that exceed such limit (according to the order in which they were granted in accordance with Section 422 of the Code) will be treated as NSOs.

2. Vesting; Method of Exercise; Cessation of Employment.

(a) Vesting. The term "vest" as used herein with respect to the Stock Option or any portion thereof means to become exercisable and the term "vested" as applied to any outstanding Stock Option means that the Stock Option is then exercisable,

subject in each case to the terms of the Plan. Unless earlier terminated, forfeited, relinquished or expired, the Stock Option will vest as follows, subject to the Participant remaining in continuous Employment from the Date of Grant through such vesting date:

[Insert Vesting Schedule]

(b) Exercise of the Stock Option. No portion of the Stock Option may be exercised until such portion vests. Each election to exercise any vested portion of the Stock Option will be subject to the terms and conditions of the Plan and must be in written or electronic form acceptable to the Administrator, signed (including by electronic signature or in such other form as is acceptable to the Administrator) by the Participant, or, if at the relevant time the Stock Option has passed to a beneficiary or permitted transferee, the beneficiary or permitted transferee. Each such written or electronic exercise election must be received by the Company at its principal office or by such other party as the Administrator may prescribe and be accompanied by payment in full as provided in the Plan and consistent with the regulations promulgated under Section 424 of the Code if the Stock Option is an ISO. The latest date on which the Stock Option or any portion thereof may be exercised is the 10th anniversary (or the fifth anniversary, in the case of an ISO held by a 10-percent stockholder within the meaning of Section 422(b)(6) of the Code) of the Date of Grant (the "**Final Exercise Date**") and if not exercised by such date the Stock Option or any remaining portion thereof will thereupon immediately terminate.

(c) Cessation of Employment. Except as expressly provided for in an employment agreement between the Participant and the Company that is in effect at the time of the Participant's termination of Employment, if the Participant's Employment ceases, the Stock Option, to the extent not then-vested, will terminate and be forfeited for no consideration, and the vested portion of the Stock Option that is then outstanding will be treated as provided in Section 4 of Plan. Notwithstanding the foregoing, the Participant acknowledges and agrees that if the Stock Option is intended to be an ISO, in the event any portion of the Stock Option is exercised after the date that is three months after the date of the cessation of the Participant's status as an Employee, the Participant will lose the tax treatment afforded to ISOs under the Code with respect to any portion of the Stock Option so exercised.

3. Forfeiture; Recovery of Compensation.

(a) The Administrator may cancel, rescind, withhold or otherwise limit or restrict the Stock Option at any time if the Participant is not in compliance with all applicable provisions of this Agreement and the Plan.

(b) By accepting, or being deemed to have accepted, the Stock Option, the Participant expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the Stock Option, under the Stock Option, including the

right to any Stock acquired under the Stock Option or proceeds from the disposition thereof, are subject to Section 6(a)(5) of the Plan (including any successor provision). Nothing in the preceding sentence may be construed as limiting the general application of Section 7 of this Agreement.

4. Nontransferability; Disqualifying Distributions. The Stock Option may not be transferred except as expressly permitted under Section 6(a)(3) of the Plan. To the extent this Stock Option is intended to be treated as an ISO, if the Participant transfers or otherwise disposes of any Shares acquired upon exercise of the Stock Option within two years from the Date of Grant or within one year after such Shares were acquired pursuant to the exercise of the Stock Option, within 15 days following such transfer or disposition, the Participant will notify the Company in writing of such transfer or disposition.

5. Withholding. The Participant expressly acknowledges and agrees that the Participant's rights hereunder, including the right to be issued Shares upon exercise of the Stock Option, are subject to the Participant promptly paying to the Company in cash or by check (or by such other means as may be acceptable to the Administrator) all taxes required to be withheld, if any. No Shares will be issued pursuant to the exercise of the Stock Option unless and until the person exercising the Stock Option has remitted to the Company an amount in cash sufficient to satisfy any federal, state, or local withholding tax requirements (if any), or has made other arrangements satisfactory to the Company with respect to such taxes. The Participant authorizes the Company and its subsidiaries to withhold such amount from any amounts otherwise owed to the Participant, but nothing in this sentence will be construed as relieving the Participant of any liability for satisfying his or her obligation under the preceding provisions of this Section 5.

6. Effect on Employment. Neither the grant of the Stock Option, nor the issuance of Shares upon exercise of the Stock Option, will give the Participant any right to be retained in the employ or service of the Company or any of its subsidiaries, affect the right of the Company or any of its subsidiaries to discharge the Participant at any time, or affect any right of the Participant to terminate his or her Employment at any time.

7. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished to the Participant. By accepting, or being deemed to have accepted, all or any portion of the Stock Option, the Participant agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

8. Acknowledgements. The Participant acknowledges and agrees that (a) this Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument, (b) this Agreement may be executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, will constitute an original signature for all purposes hereunder, and (c) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Participant.

[Signature page follows.]

The Company, by its duly authorized officer, and the Participant have executed this Agreement as of the Date of Grant.

CYCLERION THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Agreed and Accepted:

By _____
[Participant's Name]

Exhibit 10.11

Name:	**[·]**
Number of Shares of Restricted Stock:	**[·]**
Date of Grant:	**[·]**
Vesting Start Date:	**[·]**

CYCLERION THERAPEUTICS, INC.
2019 EQUITY INCENTIVE PLAN

RESTRICTED STOCK AGREEMENT

This agreement (this "**Agreement**") evidences the grant of shares of restricted Stock by Cyclerion Therapeutics, Inc. (the "**Company**") to the individual named above (the "**Participant**"), pursuant to and subject to the terms of the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan (as amended from time to time, the "**Plan**"). Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan.

1. Grant of Restricted Stock. The Company hereby issues to the Participant on the date of grant set forth above (the "**Date of Grant**"), pursuant to and subject to the terms set forth in this Agreement and in the Plan, the number of shares of restricted Stock set forth above (the "**Restricted Stock**"), subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof.

2. Vesting. The term "vest" as used herein with respect to any share of Restricted Stock means the lapsing of the restrictions described herein with respect to such share. Unless earlier terminated, forfeited, relinquished or expired, the Restricted Stock will vest as follows, subject to the Participant remaining in continuous Employment from the Date of Grant through such vesting date:

[Insert Vesting Schedule]

In the event of a Covered Transaction, the Administrator may require that any amounts delivered, exchanged or otherwise paid in respect of outstanding and then unvested shares of Restricted Stock be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan. References in this Agreement to the shares of Restricted Stock refer, mutatis mutandis, to any such restricted amounts.

3. Forfeiture Risk.

(a). If the Participant's Employment ceases for any reason, including death, any then outstanding and unvested shares of Restricted Stock acquired by the Participant hereunder will be automatically and immediately forfeited. The Participant hereby (i) appoints the Company as his or her attorney-in-fact to take such actions as may be necessary or appropriate to effectuate a transfer of the record ownership of any such shares that are unvested and forfeited hereunder, (ii) agrees to deliver to the Company, as a precondition to the issuance of any certificate or certificates with respect to unvested shares of Restricted Stock hereunder, one or

more stock powers, endorsed in blank, with respect to such shares, and (iii) agrees to sign such other powers and take such other actions as the Company may reasonably request to accomplish the transfer or forfeiture of any unvested shares of Restricted Stock that is forfeited hereunder.

(b). The Administrator may cancel, rescind, withhold or otherwise limit or restrict this Award at any time if the Participant is not in compliance with all applicable provisions of this Agreement and the Plan. By accepting, or being deemed to have accepted, the Restricted Stock, the Participant expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the Restricted Stock, under this Agreement, including the right to any Shares acquired under this Award or proceeds from the disposition thereof, are subject to Section 6(a)(5) of the Plan (including any successor provision). Nothing in the preceding sentence may be construed as limiting the general application of Section 10 of this Agreement.

4. Retention of Certificates. Any certificates representing unvested shares of Restricted Stock will be held by the Company. If unvested shares of Restricted Stock are held in book entry form, the Participant agrees that the Company may give stop transfer instructions to the depository to ensure compliance with the provisions hereof.

5. Legend. All certificates representing unvested shares of Restricted Stock will contain a legend substantially in the following form:

THE TRANSFERABILITY OF THIS CERTIFICATE AND THE SHARES OF STOCK REPRESENTED HEREBY ARE SUBJECT TO THE TERMS AND CONDITIONS (INCLUDING FORFEITURE) OF THE CYCLERION THERAPEUTICS, INC 2019 EQUITY INCENTIVE PLAN AND A RESTRICTED STOCK AWARD AGREEMENT ENTERED INTO BETWEEN THE REGISTERED OWNER AND CYCLERION THERAPEUTICS, INC. COPIES OF SUCH PLAN AND AGREEMENT ARE ON FILE IN THE OFFICES OF CYCLERION THERAPEUTICS, INC.

As soon as practicable following the vesting of any such shares of Restricted Stock the Company shall cause a certificate or certificates covering such shares, without the aforesaid legend, to be issued and delivered to the Participant. If any shares of Restricted Stock are held in book-entry form, the Company may take such steps as it deems necessary or appropriate to record and manifest the restrictions applicable to such shares.

6. Dividends, etc. The Participant will be entitled to (i) receive any and all dividends or other distributions paid with respect to those shares of Restricted Stock of which he or she is the record owner on the record date for such dividend or other distribution, and (ii) vote any shares of Restricted Stock of which he or she is the record owner on the record date for such vote; *provided*, *however*, that any property distributed with respect to a share of Restricted Stock (the "associated share") acquired hereunder, including without limitation a distribution of Stock by reason of a stock dividend, stock split or otherwise, or a distribution of other securities with respect to an associated share, will be subject to the restrictions of this Agreement in the same

manner and for so long as the associated share remains subject to such restrictions, and will be promptly forfeited if and when the associated share is so forfeited; *and further provided*, that the Administrator may require that any cash distribution with respect to the shares other than a normal cash dividend be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan. References in this Agreement to Restricted Stock refer, *mutatis mutandis*, to any such restricted amounts.

7. Sale of Vested Shares; Nontransferability of Shares. The Participant understands that he or she will be free to sell any share of Restricted Stock once it has vested, subject to (a) satisfaction of any applicable tax withholding requirements with respect to the vesting or transfer of such share; (b) the completion of any administrative steps (for example, but without limitation, the transfer of certificates) that the Company may reasonably impose; and (c) applicable requirements of federal and state securities laws. The shares of Restricted Stock may not be transferred except as expressly permitted under Section 6(a)(3) of the Plan.

8. Certain Tax Matters.

(a). The Participant has been advised to confer promptly with a professional tax advisor to consider whether the Participant should make a so-called "83(b) election" with respect to the Restricted Stock. Any such election, to be effective, must be made in accordance with applicable regulations and within 30 days following the date of "transfer" of the shares (as determined under Section 83 of the Code). The Company has made no recommendation to the Participant with respect to the advisability of making such an election. If the Participant makes an 83(b) election, the Participant agrees to execute and deliver to the Company a copy of the Acknowledgement and Statement of Decision Regarding Election Pursuant to Section 83(b) of the Code, substantially in the form attached hereto as Exhibit A, together with a copy of the Election Pursuant to Section 83(b) of the Code (the "Election Form"), substantially in the form attached hereto as Exhibit B. The Election Form must be filed by the Participant with the appropriate Internal Revenue Service office no later than 30 days after the date of the transfer of the shares noted above.

(b). To the extent the Participant is a Employee, the Participant expressly acknowledges that the award or vesting of the shares of Restricted Stock acquired hereunder, and the payment of dividends with respect to such shares, may give rise to "wages" subject to withholding. The Participant expressly acknowledges and agrees that the Participant's rights hereunder are subject to the Participant promptly remitting to the Company in cash or by check (or by such other means as may be acceptable to the Administrator) an amount sufficient to satisfy all taxes required to be withheld in connection with such award, vesting or payment. The Participant authorizes the Company and its subsidiaries to withhold any amounts due in respect of any required tax withholdings or payments from any amounts otherwise owed to the Participant, but nothing in this sentence may be construed as relieving the Participant of any liability for satisfying his or her obligation under the preceding provisions of this Section 8.

(c). To the extent the Participant is not an Employee, the Participant is responsible for satisfying and paying all taxes arising from or due in connection with the award, vesting or payments under this award of Restricted Stock. The Company will have no liability or obligation related to the foregoing.

9. Effect on Employment. Neither the grant of the Restricted Stock, nor the issuance of Shares upon the vesting of any portion of the Restricted Stock, will give the Participant any right to be retained in the employ or service of the Company or any of its subsidiaries, affect the right of the Company or any of its subsidiaries to discharge the Participant at any time, or affect any right of the Participant to terminate his or her Employment at any time.

10. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished to the Participant. By accepting, or being deemed to have accepted, all or any portion of the Restricted Stock, the Participant agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

11. Form S-8 Prospectus. The Participant acknowledges that the Participant has received and reviewed a copy of the prospectus required by Part I of Form S-8 relating to shares of Stock that may be issued under the Plan.

12. Acknowledgements. The Participant acknowledges and agrees that (a) this Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument, (b) this Agreement may be executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, will constitute an original signature for all purposes hereunder, and (c) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Participant.

[Signature page follows.]

The Company, by its duly authorized officer, and the Participant have executed this Agreement as of the date first set forth above.

CYCLERION THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Agreed and Accepted:

By _____
[Participant's Name]

[Signature page to Restricted Stock Agreement]

EXHIBIT A

ACKNOWLEDGMENT AND STATEMENT OF DECISION REGARDING ELECTION
PURSUANT TO SECTION 83(b) OF THE INTERNAL REVENUE CODE

The undersigned, a grantee of restricted shares of common stock (the "Restricted Stock") of Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "Company"), pursuant to a Restricted Stock Agreement, dated as of [·], between the undersigned and the Company (the "Restricted Stock Agreement"), hereby states, as of the date of grant of the Restricted Stock, as follows:

1. The undersigned acknowledges receipt of a copy of the Restricted Stock Agreement. The undersigned has carefully reviewed the Restricted Stock Agreement.

2. The undersigned either [*check as applicable*]:

o (a) has consulted, and has been fully advised by, the undersigned's own tax advisor, , whose business address is , regarding the federal, state and local tax consequences of purchasing the Restricted Stock under the Restricted Stock Agreement, and particularly regarding the advisability of making elections pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code"), and pursuant to the corresponding provisions, if any, of applicable state laws; or

o (b) has knowingly chosen not to consult such tax advisor.

3. The undersigned hereby states that the undersigned has decided to make an election pursuant to Section 83(b) of the Code and is submitting to the Company together with the undersigned's executed Restricted Stock Agreement, a copy of an executed election form which is attached as Exhibit B to the Restricted Stock Agreement.

4. Neither the Company nor a representative of the Company has made any warranty or representation to the undersigned with respect to the tax consequences of his or her purchasing the Restricted Stock pursuant to the Restricted Stock Agreement or of the making or failure to make an election pursuant to Section 83(b) of the Code or corresponding provisions, if any, of applicable state law.

5. The undersigned is also submitting to the Company, together with the undersigned's executed Restricted Stock Agreement, a copy of an executed election form, if an election is made, by the undersigned pursuant to provisions of state law corresponding to Section 83(b) of the Code, if any, that apply to the purchase of the Restricted Stock by the undersigned.

Date: _____ _____
Participant

EXHIBIT B

ELECTION PURSUANT TO SECTION 83(**b**) OF THE INTERNAL REVENUE CODE

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the property described below over the amount paid for such property.

The following information is submitted in accordance with Treas. Regs. § 1.83-2(e):

1. Name of Taxpayer: *[insert name of person making the election]*.

   Address: *[insert street address, city or town, state and ZIP code of person making the election]*.

   Taxpayer Identification No.: *[insert Social Security Number]*

2. Property for which election is made: [·] shares (the "Shares") of Common Stock of Cyclerion Therapeutics, Inc. (the "Company").

3. Date of Transfer: [·].

   Taxable year for which election is made: calendar year [·].

4. Restrictions to which property is subject: The Shares are subject to forfeiture in the event the Taxpayer's employment terminates prior to the vesting of the Shares.

5. The fair market value of the Shares at the time of their transfer (without regard to restrictions) was $[·] ($[·] per share).

6. Amount paid for the property: $[·].

7. A copy of this election has been furnished to the Company and to each other person, if any, required to receive the election pursuant to Treas. Regs. § 1.83-2(d)

The undersigned taxpayer will file this election with the Internal Revenue Service office with which the taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property. The undersigned taxpayer is the person performing the services in connection with which the property was transferred.

Please acknowledge receipt of this election by signing or stamping the enclosed copy of this election and return it in the enclosed, self-addressed, stamped envelope.

Date: _____ _____

Taxpayer

Exhibit 10.12

Name:	**[·]**
Number of Restricted Stock Units subject to Award:	**[·]**
Date of Grant:	**[·]**
Vesting Commencement Date	**[·]**

CYCLERION THERAPEUTICS, INC.
2019 EQUITY INCENTIVE PLAN

RESTRICTED STOCK UNIT AWARD AGREEMENT

This agreement (this "**Agreement**") evidences an award (the "**Award**") of restricted stock units granted by Cyclerion Therapeutics, Inc. (the "**Company**") to the individual named above (the "**Participant**"), pursuant to and subject to the terms of the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan (as amended from time to time, the "**Plan**"). Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan.

1. Grant of Restricted Stock Unit Award. The Company grants to the Participant on the date set forth above (the "**Date of Grant**") the number of restricted stock units (the "**Restricted Stock Units**") set forth above giving the Participant the conditional right to receive, without payment and pursuant to and subject to the terms set forth in this Agreement and in the Plan, one share of Stock (a "**Share**") with respect to each Restricted Stock Unit forming part of the Award, subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof.

2. Vesting; Cessation of Employment.

(a) Vesting. Unless earlier terminated, forfeited, relinquished or expired, the Restricted Stock Units will vest as follows, subject to the Participant remaining in continuous Employment from the Date of Grant through such vesting date:

[Insert Vesting Schedule]

(b) Cessation of Employment. Except as expressly provided for in an employment agreement between the Participant and the Company that is in effect at the time of the Participant's termination of Employment, automatically and immediately upon the cessation of the Participant's Employment the unvested portion of this Award will terminate and be forfeited for no consideration.

3. Delivery of Shares. Subject to Section 4 below, the Company shall, as soon as practicable upon the vesting of any portion of the Award (but in no event later than 30 days following the date on which such Restricted Stock Units vest), effect delivery of the Shares with respect to such vested Restricted Stock Units to the Participant (or, in the event of the Participant's death, to the person to whom the Award has passed by will or the laws of descent and distribution). No Shares will be issued pursuant to this Award unless and until all legal requirements applicable to the issuance or transfer of such Shares have been complied with to the satisfaction of the Administrator.

4. Forfeiture; Recovery of Compensation. The Administrator may cancel, rescind, withhold or otherwise limit or restrict this Award at any time if the Participant is not in compliance with all applicable provisions of this Agreement and the Plan. By accepting, or being deemed to have accepted, this Award, the Participant expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of this Award, under this Award, including the right to any Shares acquired under this Award or proceeds from the disposition thereof, are subject to Section 6(a)(5) of the Plan (including any successor provision). Nothing in the preceding sentence may be construed as limiting the general application of Section 9 of this Agreement.

5. Dividends; Other Rights. This Award may not be interpreted to bestow upon the Participant any equity interest or ownership in the Company or any subsidiary prior to the date on which the Company delivers Shares to the Participant. The Participant is not entitled to vote any Shares by reason of the granting of this Award or to receive or be credited with any dividends declared and payable on any Share prior to the date on which any such Share is delivered to the Participant hereunder. The Participant will have the rights of a shareholder only as to those Shares, if any, that are actually delivered under this Award.

6. Nontransferability. This Award may not be transferred except as expressly permitted under Section 6(a)(3) of the Plan.

7. Taxes; Sell to Cover.

(a) To the extent the Participant is an Employee, the Participant expressly acknowledges that the vesting or settlement of the Restricted Stock Units acquired hereunder may give rise to "wages" subject to withholding. No Shares will be delivered pursuant to this Award unless and until the Participant has remitted to the Company in cash or by check (or by such other means as may be acceptable to the Administrator) an amount sufficient to satisfy all taxes required to be withheld in connection with such vesting or settlement. The Participant authorizes the Company and its subsidiaries to withhold any amounts due in respect of any required tax withholdings or payments from any amounts otherwise owed to the Participant, but nothing in this sentence may be construed as relieving the Participant of any liability for satisfying his or her obligation under the preceding provisions of this Section 7.

(i) To the extent the Participant is an Employee, by accepting this Award, the Participant hereby acknowledges and agrees that he or she elects to sell Shares issued on settlement of the Award and to allow the Agent (as defined below) to remit the cash proceeds of such sale to the Company ("Sell to Cover") to satisfy the withholding obligations relating to the Award (the "Withholding Obligation"), to the extent the Company chooses to satisfy the Withholding Obligations by such means.

(ii) If the Withholding Obligation is satisfied through a Sell to Cover, the Participant hereby irrevocably appoints E*Trade, or such other registered broker-dealer that is a member of the Financial Industry Regulatory

Authority as the Company may select, as the Participant's agent (the "Agent"), and the Participant authorizes and directs the Agent to (A) sell on the open market at the then-prevailing market price(s), on the Participant's behalf, as soon as practicable on or after the date on which the Shares are delivered to the Participant pursuant to Section 3 in connection with the vesting of the Restricted Stock Units, the number (rounded up to the nearest whole number) of Shares sufficient to cover (x) the satisfaction of the Withholding Obligation arising from the vesting of the Restricted Stock Units and the related issuance and delivery of Shares to the Participant and (y) all applicable fees and commissions due, or required to be collected by, the Agent with respect thereto; (B) remit directly to the Company the proceeds from the sale of the Shares referred to in clause (A) above necessary to satisfy the Withholding Obligation; (C) retain the amount required to cover all applicable fees and commissions due to, or required to be collected by, the Agent, relating directly to the sale of the Shares referred to in clause (A) above; and (D) maintain any remaining funds from the sale of the Shares referred to in clause (A) above in the Participant's account with the Agent. The Participant hereby authorizes the Company and the Agent to cooperate and communicate with one another rot determine the number of Shares that must be sold to satisfy the Participant's obligations hereunder and to otherwise effect the purpose and intent of this Agreement and satisfy the rights and obligations hereunder.

(iii) The Participant acknowledges that the Agent is under no obligation to arrange for the sale of Shares at any particular price under a Sell to Cover and that the Agent may affect sales under any Sell to Cover in one or more sales and that the average price for executions resulting from bunched orders may be assigned to the Participant's account. The Participant further acknowledges that he or she will be responsible for all brokerage fees and other costs of sale associated with any Sell to Cover or transaction contemplated by this Section 7 and agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale. In addition, the Participant acknowledges that it may not be possible to sell Shares as provided for in this Section 7 due to various circumstances. If it is not possible to sell Shares in a Sell to Cover, the Company will assist the Participant in determining alternatives available to the Participant. In the event of the Agent's inability to sell Shares, the Participant will continue to be responsible for the timely payment to the Company of all federal, state, local and foreign taxes that are required by applicable laws and regulations to be paid or withheld with respect to the Restricted Stock Units or the Award. In such event, or in the event that the Company determines that the cash proceeds from a Sell to Cover are insufficient to meet the Withholding Obligation, the Participant authorizes the Company and its subsidiaries to withhold such amounts from any amounts otherwise owed to the Participant, but nothing in this sentence shall be construed as relieving the Participant of any

liability for satisfying his or her obligations under the preceding provisions of this Section 7.

(iv) The Participant hereby agrees to execute and deliver to the Agent or the Company any other agreements or documents as the Agent or the Company reasonably deem necessary or appropriate to carry out the purposes and intent of this Agreement, including without limitation, any agreement intended to ensure the Sell to Cover and the corresponding authorization and instruction to the Agent set forth in this Section 7 to sell Common Stock to satisfy the Withholding Obligation comply with the requirements of Rule 10b5-1(c) under the Exchange Act. The Agent is a third-party beneficiary of this Section 7.

(v) The Participant's election to Sell to Cover to satisfy the Withholding Obligation is irrevocable. Upon acceptance of the Award, the Participant has elected to Sell to Cover to satisfy the Withholding Obligation, and the Participant acknowledges that he or she may not change this election at any time in the future.

(vi) In no event will the Company have any liability relating to the failure or alleged failure of any payment or benefit under this Agreement to comply with, or be exempt from, the requirements of Section 409A.

(b) To the extent the Participant is not an Employee, the Participant is responsible for satisfying and paying all taxes arising from or due in connection with the Award, or the delivery of Shares pursuant to the Award. The Company will have no liability or obligation related to the foregoing.

8. Effect on Employment. Neither the grant of this Award, nor the issuance of Shares upon the vesting of this Award, will give the Participant any right to be retained in the employ or service of the Company or any of its subsidiaries, affect the right of the Company or any of its subsidiaries to discharge the Participant at any time, or affect any right of the Participant to terminate his or her Employment at any time.

9. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished to the Participant. By accepting, or being deemed to have accepted, all or any portion of the Award, the Participant agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

10. Form S-8 Prospectus. The Participant acknowledges that the Participant has received and reviewed a copy of the prospectus required by Part I of Form S-8 relating to shares of Stock that may be issued under the Plan.

11. Acknowledgements. The Participant acknowledges and agrees that (a) this Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument, (b) this Agreement may be

executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, will constitute an original signature for all purposes hereunder, and (c) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Participant.

[Signature page follows.]

The Company, by its duly authorized officer, and the Participant have executed this Agreement as of the date first set forth above.

CYCLERION THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Agreed and Accepted:

By _____
[Participant's Name]

Signature Page to Restricted Stock Unit Award Agreement

Exhibit 10.13

CYCLERION THERAPEUTICS, INC.

AMENDED AND RESTATED 2010 EMPLOYEE, DIRECTOR AND CONSULTANT EQUITY INCENTIVE PLAN

1. DEFINITIONS.

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan, have the following meanings:

Administrator means the Board of Directors, unless it has delegated power to act on its behalf to the Committee, in which case the Administrator means the Committee.

Affiliate means a corporation which, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

Agreement means an agreement between the Company and a Participant delivered pursuant to the Plan and pertaining to a Stock Right, in such form as the Administrator shall approve.

Board of Directors means the Board of Directors of the Company.

Cause means, with respect to a Participant (a) dishonesty with respect to the Company or any Affiliate, (b) insubordination, substantial malfeasance or non-feasance of duty, (c) unauthorized disclosure of confidential information, (d) breach by a Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company or any Affiliate, and (e) conduct substantially prejudicial to the business of the Company or any Affiliate; provided, however, that this definition of "Cause" shall be superseded by (i) the definition of "Cause" contained in an agreement between a Participant and the Company or any Affiliate which is in effect at the time of such termination, with respect to that Participant and (ii) the definition of "Cause" contained in the Company's Change of Control Severance Benefit Plan to the extent such plan is in effect at the time of such termination, the Participant is a participant in such plan and such termination occurs within the period during which the Participant is eligible for enhanced severance benefits under the Company's Change of Control Severance Benefit Plan. The determination of the Administrator as to the existence of Cause will be conclusive on the Participant and the Company; provided, however, that if the determination is made within the period during which the Participant is eligible for enhanced severance benefits under the Company's Change of Control Severance Benefit Plan, then the determination will be subject to de novo review.

Code means the United States Internal Revenue Code of 1986, as amended including any successor statute, regulation and guidance thereto.

Committee means the committee of the Board of Directors to which the Board of Directors has delegated power to act under or pursuant to the provisions of the Plan, or a subcommittee thereof that consists solely of two or more "outside" directors, as required under Section 162(m) of the Code.

Common Stock means common stock of the Company.

Company means Cyclerion Therapeutics, Inc., a Massachusetts corporation.

Consultant means any natural person who (i) is an advisor or consultant that provides bona fide services to the Company or its Affiliates or to Ironwood, provided that such services are not in connection with the offer or sale of securities in a capital raising transaction, and do not directly or indirectly promote or maintain a market for the Company's or its Affiliates' securities and (ii) was granted one or more Stock Rights under the Plan prior to the separation of the Company from Ironwood.

Disability or Disabled means permanent and total disability as defined in Section 22(e)(3) of the Code.

Employee means any employee of the Company or an Affiliate or of Ironwood (including, without limitation, an employee who is also serving as an officer or director of the Company or an Affiliate or of Ironwood), to whom one or more Stock Rights were granted under the Plan prior to the separation of the Company from Ironwood.

Exchange Act means the Securities Exchange Act of 1934, as amended.

Fair Market Value of a Share of Common Stock means:

(1) If the Common Stock is listed on a national securities exchange or traded in the over-the-counter market and sales prices are regularly reported for the Common Stock, the closing or, if not applicable, the last price of the Common Stock on the composite tape or other comparable reporting system for the trading day on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date;

(2) If the Common Stock is not traded on a national securities exchange but is traded on the over-the-counter market, if sales prices are not regularly reported for the Common Stock for the trading day referred to in clause (1), and if bid and asked prices for the Common Stock are regularly reported, the mean between the bid and the asked price for the Common Stock at the close of trading in the over-the-counter market for the trading day on which Common Stock was traded on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date; and

(3) If the Common Stock is neither listed on a national securities exchange nor traded in the over-the-counter market, such value as the Administrator, in good faith, shall determine.

Ironwood means Ironwood Pharmaceuticals, Inc.

ISO means an option meant to qualify as an incentive stock option under Section 422 of the Code.

Non-Qualified Option means an option which is not intended to qualify as an ISO.

Option means an ISO or Non-Qualified Option granted under the Plan.

Participant means an Employee, Consultant or director of the Company or an Affiliate or of Ironwood to whom one or more Stock Rights were granted under the Plan prior to the separation of the Company from Ironwood. As used herein, "Participant" shall include "Participant's Survivors" where the context requires.

Performance-Based Award means a Stock Right as set forth in Paragraph 9 hereof.

Performance Goals means performance goals based on one or more of the following criteria: achievement of research, clinical trial or other drug development objectives; achievement of regulatory objectives; achievement of manufacturing and/or supply chain objectives; sales; revenues; assets; expenses; earnings or earnings per share; earnings before interest and taxes (EBIT) or EBIT per share; earnings before interest, taxes, depreciation and amortization (EBITDA) or EBITDA per share; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow or cash flow per share; stock price; stockholder return; income, pre-tax income, net income, operating income, pre-tax profit, operating profit, net operating profit or economic profit; gross margin, operating margin, profit margin, return on operating revenue, return on operating assets, cash from operations, operating ratio or operating revenue; market capitalization; customer expansion or retention; acquisitions or divestitures (in whole or in part) and/or integration activities related thereto; joint ventures, collaborations, licenses and strategic alliances, and/or the management and performance of such relationships; spin-offs, split-ups or similar transactions; reorganizations; recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings; achievement of litigation-related objectives and/or objectives related to litigation expenses; achievement of human resource, organizational and/or personnel objectives; achievement of information technology or information services objectives; or achievement of real estate, facilities or space-planning objectives.

The foregoing performance goals may be determined: (a) on an absolute basis, (b) relative to internal goals or levels attained in prior years, (c) related to other companies or indices, or (d) as ratios expressing relationships between two or

more Performance Goals. Where applicable, the Performance Goals may be expressed in terms of attaining a specified level of the particular criterion or the attainment of a percentage increase or decrease in the particular criterion, and may be applied to the Company and/or an Affiliate, or a division or strategic business unit of the Company and/or an Affiliate, all as determined by the Committee. The Performance Goals may include a threshold level of performance below which no Performance-Based Award will be issued or no vesting will occur, levels of performance at which Performance-Based Awards will be issued or specified vesting will occur, and a maximum level of performance above which no additional issuances will be made or at which full vesting will occur. In the areas of drug research, development, regulatory affairs and commercialization, if a third party partner that is party to a licensing or collaboration agreement with the Company accomplishes a development milestone, regulatory achievement, or commercialization or sales target with the partnered asset, then such third party partner's accomplishment shall constitute an achievement of the Company.

The satisfaction of each of the foregoing Performance Goals shall be subject to certification by the Committee. The Committee has the authority to take appropriate action with respect to the Performance Goals (including, without limitation, to make adjustments to the Performance Goals or determine the satisfaction of the Performance Goals, in each case, in connection with a Corporate Transaction) provided that any such actions do not otherwise violate Section 162(m) of the Code or the terms of the Plan. In the case of Performance-Based Awards that are not intended to comply with Section 162(m) of the Code, the Committee may designate performance criteria from among the foregoing or such other performance criteria as it shall determine in its sole discretion.

Plan means this Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan.

Securities Act means the Securities Act of 1933, as amended.

Shares means shares of the Common Stock as to which Stock Rights have been or may be granted under the Plan or any shares of capital stock into which the Shares are changed or for which they are exchanged within the provisions of Paragraph 3 of the Plan. The Shares issued under the Plan may be authorized and unissued shares or shares held by the Company in its treasury, or both.

Stock-Based Award means a grant by the Company under the Plan of an equity award or an equity-based award which is not an Option or a Stock Grant.

Stock Grant means a grant by the Company of Shares under the Plan.

Stock Right means a right to Shares or the value of Shares of the Company granted pursuant to the Plan — an ISO, a Non-Qualified Option, a Stock Grant or a Stock-Based Award.

Survivor means a deceased Participant's legal representatives and/or any person or persons who acquired the Participant's rights to a Stock Right by will or by the laws of descent and distribution.

2. PURPOSES OF THE PLAN.

The Plan is intended to encourage ownership of Shares by Employees, Consultants and directors of the Company, its Affiliates or Ironwood to whom one or more Stock Rights were granted under the Plan prior to the separation of the Company from Ironwood, in order to attract and retain such people, to induce them to work for the benefit of the Company or of an Affiliate and to provide additional incentive for them to promote the success of the Company or of an Affiliate. The Plan provides for the granting of ISOs, Non-Qualified Options, Stock Grants and Stock-Based Awards. The Plan has been adopted by the Board of Directors solely for the purpose of granting Stock Rights in respect of equity-based awards previously granted under the Ironwood Pharmaceuticals, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan (the "Ironwood 2010 Plan") and converted into equity-based awards of the Company pursuant to Article 5 of the Employee Matters Agreement by and between Ironwood Pharmaceuticals, Inc. and the Company dated as of 2019 (the "Employee Matters Agreement"). The Plan is intended to mirror in all material respects the terms and conditions of the Ironwood 2010 Plan (other than those terms that are made inoperative by the separation of the Company's soluble guanylate cyclase business from Ironwood Pharmaceuticals, Inc.)

3. SHARES SUBJECT TO THE PLAN.

(a) The number of Shares which may be issued from time to time pursuant to this Plan shall be the lesser of (i) 13,800,000 Shares and (ii) that number of Shares necessary to give effect to the grant of equity-based awards contemplated by Article 5 of the Employee Matters Agreement. Any Shares underlying Stock Rights that are forfeited, expired or are cancelled without the delivery of Shares thereunder, shall be added to the number of Shares that may be issued in satisfaction of awards under the Company's 2019 Equity Incentive Plan.

4. ADMINISTRATION OF THE PLAN.

The Administrator of the Plan will be the Board of Directors, except to the extent the Board of Directors delegates its authority to the Committee, in which case the Committee shall be the Administrator.

Subject to the provisions of the Plan, the Administrator is authorized to:

(a) Interpret the provisions of the Plan and all Stock Rights and to make all rules and determinations which it deems necessary or advisable for the administration of the Plan;

(b) Determine which Employees, directors and Consultants shall be granted Stock Rights;

(c) Determine the number of Shares for which a Stock Right or Stock Rights shall be granted; provided, however, that in no event shall Stock Rights with respect to more than 1,000,000 Shares be granted to any Participant in any fiscal year (it being understood, however, that all equity-based awards previously granted under the Ironwood 2010 Plan are Stock Rights assumed under the Plan, and are, therefore, not subject to this limitation);

(d) Specify the terms and conditions upon which a Stock Right or Stock Rights may be granted;

(e) Determine Performance Goals; and

(f) Adopt any sub-plans applicable to residents of any specified jurisdiction as it deems necessary or appropriate in order to comply with or take advantage of any tax or other laws applicable to the Company, any Affiliate or to Participants or to otherwise facilitate the administration of the Plan, which sub-plans may include additional restrictions or conditions applicable to Stock Rights or Shares issuable pursuant to a Stock Right; provided, however, that all such interpretations, rules, determinations, terms and conditions shall be made and prescribed in the context of: (i) not causing any adverse tax consequences under Section 409A of the Code and (ii) preserving the tax status under Section 422 of the Code of those Options which are designated as ISOs. Subject to the foregoing and except as otherwise provided in the definition of Cause provided in Paragraph 1 above, the interpretation and construction by the Administrator of any provisions of the Plan or of any Stock Right granted under it shall be final, unless otherwise determined by the Board of Directors, if the Administrator is the Committee. In addition, if the Administrator is the Committee, the Board of Directors may take any action under the Plan that would otherwise be the responsibility of the Committee.

To the extent permitted under applicable law, the Board of Directors or the Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any portion of its responsibilities and powers to any other person selected by it. The Board of Directors or the Committee may revoke any such allocation or delegation at any time. Notwithstanding the foregoing, only the Board of Directors or the Committee shall be authorized to grant a Stock Right to any director of the Company or to any "officer" of the Company (as defined by Rule 16a-1 under the Exchange Act).

5. ELIGIBILITY FOR PARTICIPATION.

All Employees, Consultants and directors of the Company, its Affiliates or Ironwood to whom one or more Stock Rights were granted under the Plan prior to the separation of the Company from Ironwood are eligible to participate in the Plan.

6. TERMS AND CONDITIONS OF OPTIONS.

Each Option shall be set forth in writing in an Option Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Administrator may provide that Options be granted subject to such terms and conditions, consistent with the terms and conditions specifically required under this Plan, as the Administrator may deem appropriate including, without limitation, subsequent approval by the shareholders of the Company of this Plan or any amendments thereto. The Option Agreements shall be subject to at least the following terms and conditions:

(a) Non-Qualified Options: Each Option intended to be a Non-Qualified Option shall be subject to the terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards for any such Non-Qualified Option:

(i) Exercise Price: Each Option Agreement shall state the exercise price (per share) of the Shares covered by each Option, which exercise price shall be determined by the Administrator and shall be at least equal to the Fair Market Value per share of Common Stock on the date of grant of the Option.

(ii) Number of Shares: Each Option Agreement shall state the number of Shares to which it pertains.

(iii) Option Periods: Each Option Agreement shall state the date or dates on which it first is exercisable and the date after which it may no longer be exercised, and may provide that the Option rights accrue or become exercisable in installments over a period of months or years, or upon the occurrence of certain conditions or the attainment of stated goals or events.

(iv) Option Conditions: Exercise of any Option may be conditioned upon the Participant's execution of a Share purchase agreement in form satisfactory to the Administrator providing for certain protections for the Company and its other shareholders, including requirements that:

(A) The Participant's or the Participant's Survivors' right to sell or transfer the Shares may be restricted; and

(B) The Participant or the Participant's Survivors may be required to execute letters of investment intent and must also acknowledge that the Shares will bear legends noting any applicable restrictions.

(b) ISOs: Each Option intended to be an ISO shall be issued only to an Employee who is deemed to be a resident of the United States for tax purposes, and shall be subject to the following terms and conditions, with such additional restrictions or changes as the Administrator determines are appropriate but not in conflict with Section 422 of the Code and relevant regulations and rulings of the Internal Revenue Service:

(i) Minimum Standards: The ISO shall meet the minimum standards required of Non-Qualified Options, as described in Subparagraph 6(a) above, except Subclause (i) thereunder.

(ii) Exercise Price: Immediately before the ISO is granted, if the Participant owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code:

(A) 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, the exercise price per share of the Shares covered by each ISO shall not be less than 100% of the Fair Market Value per share of the Common Stock on the date of grant of the Option; or

(B) More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, the exercise price per share of the Shares covered by each ISO shall not be less than 110% of the Fair Market Value per share of the Common Stock on the date of grant of the Option.

(iii) Term of Option: For Participants who own:

(A) 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than ten years from the date of the grant or at such earlier time as the Option Agreement may provide; or

(B) More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than five years from the date of the grant or at such earlier time as the Option Agreement may provide.

(iv) Limitation on Yearly Exercise: The Option Agreements shall restrict the amount of ISOs which may become exercisable in any calendar year (under this or any other ISO plan of the Company or an Affiliate) so that the aggregate Fair Market Value (determined on the date each ISO is granted) of the stock with respect to which ISOs are exercisable for the first time by the Participant in any calendar year does not exceed $100,000.

7. TERMS AND CONDITIONS OF STOCK GRANTS.

Each Stock Grant to a Participant shall state the principal terms in an Agreement duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards:

(a) Each Agreement shall state the purchase price per share, if any, of the Shares covered by each Stock Grant, which purchase price shall be determined by the Administrator but shall not be less than the minimum consideration required under applicable law, if any, on the date of the grant of the Stock Grant;

(b) Each Agreement shall state the number of Shares to which the Stock Grant pertains; and

(c) Each Agreement shall include the terms of any right of the Company to restrict or reacquire the Shares subject to the Stock Grant, including the time or attainment of Performance Goals upon which such rights shall accrue and the purchase price therefor, if any.

8. TERMS AND CONDITIONS OF OTHER STOCK-BASED AWARDS.

The Administrator shall have the right to grant other Stock-Based Awards based upon the Common Stock having such terms and conditions as the Administrator may determine, including, without limitation, the grant of Shares based upon certain conditions, the grant of securities convertible into Shares and the grant of stock appreciation rights, phantom stock awards or stock units. The principal terms of each Stock-Based Award shall be set forth in an Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company.

The Company intends that the Plan and any Stock-Based Awards granted hereunder be exempt from the application of Section 409A of the Code or meet the requirements of paragraphs (2), (3) and (4) of subsection (a) of Section 409A of the Code, to the extent applicable, and be operated in accordance with Section 409A so that any compensation deferred under any Stock-Based Award (and applicable investment earnings) shall not be included in income under Section 409A of the Code. Any ambiguities in the Plan shall be construed to effect the intent as described in this Paragraph 8.

9. PERFORMANCE-BASED AWARDS.

A Participant's Performance-Based Award shall be determined based on the attainment of written Performance Goals, which must be objective and approved by the Committee while the outcome for that performance period is substantially uncertain, and no more than ninety (90) days after the commencement of the performance period to which the Performance Goal relates or, if less, the number of days which is equal to twenty-five percent (25%) of the relevant performance period. The Committee shall determine whether, with respect to a performance period, the applicable Performance Goals have been met with respect to a given Participant and, if they have, to so certify and ascertain the amount of the applicable Performance-Based Award. No Performance-Based Awards will vest for such performance period until such certification is made by the Committee. The number of Shares issued in respect of a Performance-Based Award to a given Participant may be less than the amount determined by the applicable Performance Goal formula, at the discretion of the Committee.

10. EXERCISE OF OPTIONS AND ISSUE OF SHARES.

An Option (or any part or installment thereof) shall be exercised by giving written notice to the Company or its designee (in a form acceptable to the Administrator, which may include electronic notice), together with provision for payment of the aggregate exercise price in accordance with this Paragraph 10 for the Shares as to which the Option is being exercised, and upon compliance with any other condition(s) set forth in the Option Agreement. Such notice shall be signed by the person exercising the Option (which signature may be provided electronically in a form acceptable to the Administrator), shall state the number of Shares with respect to which the Option is being exercised and shall contain any representation required by the Plan or the Option Agreement. Payment of the exercise price for the Shares as to which such Option is being exercised shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock held for at least six months (if required to avoid negative accounting treatment) having a Fair Market Value equal

as of the date of the exercise to the aggregate cash exercise price for the number of Shares as to which the Option is being exercised, or (c) at the discretion of the Administrator, by having the Company retain from the Shares otherwise issuable upon exercise of the Option, a number of Shares having a Fair Market Value equal as of the date of exercise to the aggregate exercise price for the number of Shares as to which the Option is being exercised, or (d) at the discretion of the Administrator, in accordance with a cashless exercise program established with a securities brokerage firm, and approved by the Administrator, or (e) at the discretion of the Administrator, by any combination of (a), (b), (c) and (d) above or (f) at the discretion of the Administrator, by payment of such other lawful consideration as the Administrator may determine. Notwithstanding the foregoing, the Administrator shall accept only such payment on exercise of an ISO as is permitted by Section 422 of the Code.

The Company shall then reasonably promptly deliver the Shares as to which such Option was exercised to the Participant (or to the Participant's Survivors, as the case may be). In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance. The Shares shall, upon delivery, be fully paid, non-assessable Shares.

The Administrator shall have the right to accelerate the date of exercise of any installment of any Option; provided that the Administrator shall not accelerate the exercise date of any installment of any Option granted to an Employee as an ISO (and not previously converted into a Non-Qualified Option pursuant to Paragraph 23) without the prior approval of the Employee if such acceleration would violate the annual vesting limitation contained in Section 422(d) of the Code, as described in Subclause 6(b)(iv).

The Administrator may, in its discretion, amend any term or condition of an outstanding Option provided (i) such term or condition as amended is permitted by the Plan, (ii) any such amendment shall be made only with the consent of the Participant to whom the Option was granted, or in the event of the death of the Participant, the Participant's Survivors, if the amendment is adverse to the Participant, and (iii) any such amendment of any Option shall be made only after the Administrator determines whether such amendment would constitute a "modification" of any Option which is an ISO (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holder of any Option including, but not limited to, pursuant to Section 409A of the Code.

11. ACCEPTANCE OF STOCK GRANTS AND STOCK-BASED AWARDS AND ISSUANCE OF SHARES.

A Stock Grant or Stock-Based Award (or any part or installment thereof) shall be accepted by executing the applicable Agreement and delivering it to the Company or its designee, together with provision for payment of the aggregate exercise price, if any, in accordance with this Paragraph 11 for the Shares as to which such Stock Grant or Stock-Based Award is being accepted, and upon compliance with any other conditions set forth in the applicable Agreement. Payment of the purchase price for the Shares as to which such Stock Grant or Stock-Based Award is being accepted shall be made (a) in United States dollars in cash

or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock held for at least six months (if required to avoid negative accounting treatment) and having a Fair Market Value equal as of the date of acceptance of the Stock Grant or Stock Based-Award to the purchase price of the Stock Grant or Stock-Based Award, or (c) at the discretion of the Administrator, by any combination of (a) and (b) above; or (d) at the discretion of the Administrator, by payment of such other lawful consideration as the Administrator may determine.

The Company shall then, if required by the applicable Agreement, reasonably promptly deliver the Shares as to which such Stock Grant or Stock-Based Award was accepted to the Participant (or to the Participant's Survivors, as the case may be), subject to any escrow provision set forth in the applicable Agreement. In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance.

The Administrator may, in its discretion, amend any term or condition of an outstanding Stock Grant, Stock-Based Award or applicable Agreement provided (i) such term or condition as amended is permitted by the Plan, (ii) any such amendment shall be made only with the consent of the Participant to whom the Stock Grant or Stock-Based Award was made, if the amendment is adverse to the Participant, and (iii) any such amendment shall be made only after the Administrator determines whether such amendment would cause any adverse tax consequences to the Participant, including, but not limited to, pursuant to Section 409A of the Code.

12. RIGHTS AS A SHAREHOLDER.

No Participant to whom a Stock Right has been granted shall have rights as a shareholder with respect to any Shares covered by such Stock Right, except after due exercise of the Option or acceptance of the Stock Grant or as set forth in any Agreement, and tender of the aggregate exercise or purchase price, if any, for the Shares being purchased pursuant to such exercise or acceptance and registration of the Shares in the Company's share register in the name of the Participant.

13. ASSIGNABILITY AND TRANSFERABILITY OF STOCK RIGHTS.

By its terms, a Stock Right granted to a Participant shall not be transferable by the Participant other than (a) by will or by the laws of descent and distribution, or (b) as approved by the Administrator in its discretion and set forth in the applicable Agreement provided that no Stock Right may be transferred by a Participant for value. Notwithstanding the foregoing, an ISO transferred except in compliance with Subparagraph (a) above shall no longer qualify as an ISO. The designation of a beneficiary of a Stock Right by a Participant, with the prior approval of the Administrator and in such form as the Administrator shall prescribe, shall not be deemed a transfer prohibited by this Paragraph 13. Except as provided above, a Stock Right shall only be exercisable or may only be accepted, during the Participant's lifetime, by such Participant (or by his or her legal representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or

similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Stock Right or of any rights granted thereunder contrary to the provisions of this Plan, or the levy of any attachment or similar process upon a Stock Right, shall be null and void.

14. EFFECT ON OPTIONS OF TERMINATION OF SERVICE OTHER THAN FOR CAUSE OR DEATH OR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement, in the event of a termination of service (whether as an Employee, director or Consultant) with the Company or an Affiliate before the Participant has exercised an Option, the following rules apply:

(a) A Participant who ceases to be an Employee, director or Consultant of the Company or of an Affiliate (for any reason other than termination for Cause, Disability, or death for which events there are special rules in Paragraphs 15, 16, and 17, respectively), may exercise any Option granted to him or her to the extent that the Option is exercisable on the date of such termination of service, but only within such term as the Administrator has designated in a Participant's Option Agreement.

(b) Except as provided in Subparagraph (c) below, or Paragraph 16 or 17, in no event may an Option intended to be an ISO, be exercised later than three months after the Participant's termination of employment.

(c) The provisions of this Subparagraph (c), and not the provisions of Paragraph 16 or 17, shall apply to a Participant who subsequently becomes Disabled or dies after the termination of employment, director status or consultancy; provided, however, in the case of a Participant's Disability or death within three months after the termination of employment, director status or consultancy, the Participant or the Participant's Survivors may exercise the Option within one year after the date of the Participant's termination of service, but in no event after the date of expiration of the term of the Option.

(d) Notwithstanding anything herein to the contrary, if subsequent to a Participant's termination of employment, termination of director status or termination of consultancy, but prior to the exercise of an Option, the Administrator determines that, either prior or subsequent to the Participant's termination, the Participant engaged in conduct which would constitute Cause, then such Participant shall forthwith cease to have any right to exercise any Option.

(e) A Participant to whom an Option has been granted under the Plan who is absent from the Company or an Affiliate because of temporary disability (any disability other than a Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide; provided, however, that, for ISOs, any leave of absence granted by the Administrator of greater than ninety days, unless pursuant to a contract or statute that guarantees the right to reemployment, shall cause such ISO to become a Non-Qualified Option on the 181st day following such leave of absence.

(f) Except as required by law or as set forth in a Participant's Option Agreement, Options granted under the Plan shall not be affected by any change of a Participant's status within or among the Company and any Affiliates, so long as the Participant continues to be an Employee, director or Consultant of the Company or any Affiliate.

15. EFFECT ON OPTIONS OF TERMINATION OF SERVICE FOR CAUSE.

Except as otherwise provided in a Participant's Option Agreement, the following rules apply if the Participant's service (whether as an Employee, director or Consultant) with the Company or an Affiliate is terminated for Cause prior to the time that all his or her outstanding Options have been exercised:

(a) All outstanding and unexercised Options as of the time the Participant is notified that his or her service is terminated for Cause will immediately be forfeited.

(b) Cause is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of Cause occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service but prior to the exercise of an Option, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute Cause, then the right to exercise any Option is forfeited.

16. EFFECT ON OPTIONS OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement:

(a) A Participant who ceases to be an Employee, director or Consultant of the Company or of an Affiliate by reason of Disability may exercise any Option granted to him or her to the extent that the Option has become exercisable but has not been exercised on the date of Disability.

(b) A Disabled Participant may exercise the Option only within the period ending one year after the date of the Participant's termination due to Disability, notwithstanding that the Participant might have been able to exercise the Option as to some or all of the Shares on a later date if the Participant had not become Disabled and had continued to be an Employee, director or Consultant or, if earlier, within the originally prescribed term of the Option.

(c) The Administrator shall make the determination both of whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

17. EFFECT ON OPTIONS OF DEATH WHILE AN EMPLOYEE. DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Option Agreement:

(a) In the event of the death of a Participant while the Participant is an Employee, director or Consultant of the Company or of an Affiliate, such Option may be exercised by the Participant's Survivors to the extent that the Option has become exercisable but has not been exercised on the date of death.

(b) If the Participant's Survivors wish to exercise the Option, they must take all necessary steps to exercise the Option within one year after the date of death of such Participant, notwithstanding that the decedent might have been able to exercise the Option as to some or all of the Shares on a later date if he or she had not died and had continued to be an Employee, director or Consultant or, if earlier, within the originally prescribed term of the Option.

18. PURCHASE FOR INVESTMENT.

Unless the offering and sale of the Shares to be issued upon the particular exercise or acceptance of a Stock Right shall have been effectively registered under the Securities Act, the Company shall be under no obligation to issue the Shares covered by such exercise unless and until the following conditions have been fulfilled:

(a) The person who exercises or accepts such Stock Right shall warrant to the Company, prior to the receipt of such Shares, that such person is acquiring such Shares for his or her own account, for investment, and not with a view to, or for sale in connection with, the distribution of any such Shares, in which event the person acquiring such Shares shall be bound by the provisions of the following legend (or a legend in substantially similar form) which shall be endorsed upon the certificate evidencing the Shares issued pursuant to such exercise or such grant:

> "The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws."

(b) At the discretion of the Administrator, the Company shall have received an opinion of its counsel that the Shares may be issued upon such particular exercise or acceptance in compliance with the Securities Act without registration thereunder.

19. DISSOLUTION OR LIQUIDATION OF THE COMPANY.

Upon the dissolution or liquidation of the Company, all Options granted under this Plan which as of such date shall not have been exercised and all Stock Grants and Stock-Based Awards which have not been accepted will terminate and become null and void; provided, however, that if the rights of a Participant or a Participant's Survivors have not otherwise terminated and expired, the Participant or the Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise or accept any Stock Right to the extent that the Stock Right is exercisable or subject to acceptance as of the date immediately prior to such dissolution or liquidation. Upon the dissolution or liquidation of the Company, any

outstanding Stock-Based Awards shall immediately terminate unless otherwise determined by the Administrator or specifically provided in the applicable Agreement.

20. ADJUSTMENTS.

Upon the occurrence of any of the following events, a Participant's rights with respect to any Stock Right granted to him or her hereunder shall be adjusted as hereinafter provided, unless otherwise specifically provided in a Participant's Agreement:

(a) Stock Dividends and Stock Splits. If (i) the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, or additional shares or new or different shares or other securities of the Company or other non- cash assets are distributed with respect to such shares of Common Stock, each Stock Right and the number of shares of Common Stock deliverable thereunder shall be appropriately increased or decreased proportionately, and appropriate adjustments shall be made including, in the exercise or purchase price per share, to reflect such events. The number of Shares subject to the limitations in Subparagraphs 3(a) and 4(c) shall also be proportionately adjusted upon the occurrence of such events.

(b) Corporate Transactions. If the Company is to be consolidated with or acquired by another entity in a merger, consolidation, or sale of all or substantially all of the Company's assets other than a transaction to merely change the state of incorporation (a "Corporate Transaction"), the Administrator or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to outstanding Options, either (i) make appropriate provision for the continuation of such Options by substituting on an equitable basis for the Shares then subject to such Options either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) upon written notice to the Participants, provide that such Options must be exercised (any such Options being made fully exercisable for purposes of this Subparagraph (b)), within a specified number of days of the date of such notice, at the end of which period such Options which have not been exercised shall terminate; or (iii) terminate such Options in exchange for payment of an amount equal to the consideration payable upon consummation of such Corporate Transaction to a holder of the number of shares of Common Stock into which such Option would have been exercisable (any such Options being made fully exercisable for purposes of this Subparagraph (b)) less the aggregate exercise price thereof. For purposes of determining the payments to be made pursuant to Subclause (iii) above, in the case of a Corporate Transaction the consideration for which, in whole or in part, is other than cash, the consideration other than cash shall be valued at the fair value thereof as determined in good faith by the Board of Directors.

With respect to outstanding Stock Grants, the Administrator or the Successor Board, shall make appropriate provision for the continuation of such Stock Grants on the same terms and conditions by substituting on an equitable basis for the Shares then subject to such Stock Grants either the consideration payable with respect to the outstanding Shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity. In lieu of the foregoing, in connection with any Corporate Transaction, the Administrator may

provide that, upon consummation of the Corporate Transaction, each outstanding Stock Grant shall be terminated in exchange for payment of an amount equal to the consideration payable upon consummation of such Corporate Transaction to a holder of the number of shares of Common Stock comprising such Stock Grant.

In taking any of the actions permitted under this Subparagraph 20(b), the Administrator shall not be obligated by the Plan to treat all Stock Rights, all Stock Rights held by a Participant, or all Stock Rights of the same type, identically.

(c) Recapitalization or Reorganization. In the event of a recapitalization or reorganization of the Company other than a Corporate Transaction pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, a Participant upon exercising an Option or accepting a Stock Grant after the recapitalization or reorganization shall be entitled to receive for the price paid upon such exercise or acceptance if any, the number of replacement securities which would have been received if such Option had been exercised or Stock Grant accepted prior to such recapitalization or reorganization.

(d) Adjustments to Stock-Based Awards. Upon the happening of any of the events described in Subparagraphs (a), (b) or (c) above, any outstanding Stock-Based Award shall be appropriately adjusted to reflect the events described in such Subparagraphs. The Administrator or the Successor Board shall determine the specific adjustments to be made under this Paragraph 20, including, but not limited to the effect of any, Corporate Transaction and, subject to Paragraph 4, its determination shall be conclusive. Except as permitted in this Subparagraph 20(d), the Administrator may not, without obtaining stockholder approval: (a) amend the terms of any outstanding Stock-Based Award to reduce the exercise price of such Stock-Based Award; (b) cancel any outstanding Stock-Based Award in exchange for an Option or Stock-Based Award with an exercise price that is less than the exercise price of the original Stock-Based Award; or (c) cancel any outstanding Stock-Based Award with an exercise price above the current stock price in exchange for cash or other securities.

(e) Modification of Options. Notwithstanding the foregoing, any adjustments made pursuant to Subparagraph (a), (b) or (c) above with respect to Options shall be made only after the Administrator determines whether such adjustments would constitute a “modification” of any ISOs (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holders of Options, including, but not limited to, pursuant to Section 409A of the Code. If the Administrator determines that such adjustments made with respect to Options would constitute a modification or other adverse tax consequence, it may refrain from making such adjustments, unless the holder of an Option specifically agrees in writing that such adjustment be made and such writing indicates that the holder has full knowledge of the consequences of such “modification” on his or her income tax treatment with respect to the Option. This Subparagraph (e) shall not apply to the acceleration of the vesting of any ISO that would cause any portion of the ISO to violate the annual vesting limitation contained in Section 422(d) of the Code, as described in Subclause 6(b)(iv).

Except as permitted in this Subparagraph 20(e), the Administrator may not, without obtaining stockholder approval: (a) amend the terms of any outstanding Option to reduce the

exercise price of such Option; (b) cancel any outstanding Option in exchange for an Option or Stock-Based Award with an exercise price that is less than the exercise price of the original Option; or (c) cancel any outstanding Option with an exercise price above the current stock price in exchange for cash or other securities.

(f) Modification of Performance-Based Awards. Notwithstanding the foregoing, with respect to any Performance-Based Award that is intended to comply as "performance based compensation" under Section 162(m) of the Code, the Committee may adjust proportionately the number of Shares payable pursuant to a Performance-Based Award to reflect the Corporate Transaction or other event but may not otherwise increase the number of Shares, and the Committee may not waive the achievement of the applicable Performance Goals except in the case of death or Disability of the Participant or in connection with a Corporate Transaction.

21. ISSUANCES OF SECURITIES.

Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares subject to Stock Rights. Except as expressly provided herein, no adjustments shall be made for dividends paid in cash or in property (including without limitation, securities) of the Company prior to any issuance of Shares pursuant to a Stock Right.

22. FRACTIONAL SHARES.

No fractional shares shall be issued under the Plan and the person exercising a Stock Right shall receive from the Company cash in lieu of such fractional shares equal to the Fair Market Value thereof.

23. CONVERSION OF ISOS INTO NON-QUALIFIED OPTIONS; TERMINATION OF ISOS.

The Administrator, at the written request of any Participant, may in its discretion take such actions as may be necessary to convert such Participant's ISOs (or any portions thereof) that have not been exercised on the date of conversion into Non-Qualified Options at any time prior to the expiration of such ISOs, regardless of whether the Participant is an Employee of the Company or an Affiliate at the time of such conversion. At the time of such conversion, the Administrator (with the consent of the Participant) may impose such conditions on the exercise of the resulting Non-Qualified Options as the Administrator in its discretion may determine, provided that such conditions shall not be inconsistent with this Plan. Nothing in the Plan shall be deemed to give any Participant the right to have such Participant's ISOs converted into Non-Qualified Options, and no such conversion shall occur until and unless the Administrator takes appropriate action. The Administrator, with the consent of the Participant, may also terminate any portion of any ISO that has not been exercised at the time of such conversion.

24. WITHHOLDING.

In the event that any federal, state, or local income taxes, employment taxes, Federal Insurance Contributions Act withholdings or other amounts are required by applicable law or

governmental regulation to be withheld from the Participant's salary, wages or other remuneration in connection with the exercise or acceptance of a Stock Right or in connection with a Disqualifying Disposition (as defined in Paragraph 25) or upon the lapsing of any forfeiture provision or right of repurchase or for any other reason required by law, the Company may withhold from the Participant's compensation, if any, or may require that the Participant advance in cash to the Company, or to any Affiliate of the Company which employs or employed the Participant, the statutory minimum amount of such withholdings unless a different withholding arrangement, including the use of shares of the Company's Common Stock, is authorized by the Administrator (and permitted by law). For purposes hereof, the fair market value of the shares withheld for purposes of payroll withholding shall be determined in the manner set forth under the definition of Fair Market Value provided in Paragraph 1 above, as of the most recent practicable date prior to the date of exercise. If the Fair Market Value of the shares withheld is less than the amount of payroll withholdings required, the Participant may be required to advance the difference in cash to the Company or the Affiliate employer. The Administrator in its discretion may condition the exercise of an Option for less than the then Fair Market Value on the Participant's payment of such additional withholding.

25. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION.

Each Employee who receives an ISO must agree to notify the Company in writing immediately after the Employee makes a Disqualifying Disposition of any Shares acquired pursuant to the exercise of an ISO. A Disqualifying Disposition is defined in Section 424(c) of the Code and includes any disposition (including any sale or gift) of such Shares before the later of (a) two years after the date the Employee was granted the ISO, or (b) one year after the date the Employee acquired Shares by exercising the ISO, except as otherwise provided in Section 424(c) of the Code. If the Employee has died before such Shares are sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

26. TERMINATION OF THE PLAN.

The Plan will terminate on December 17, 2019. The Plan may be terminated at an earlier date by vote of the shareholders or the Board of Directors of the Company; provided, however, that any such earlier termination shall not affect any Agreements executed prior to the effective date of such termination. Termination of the Plan shall not affect any Stock Rights theretofore granted.

27. AMENDMENT OF THE PLAN AND AGREEMENTS.

The Plan may be amended by the shareholders of the Company. The Plan may also be amended by the Administrator, including, without limitation, to the extent necessary to qualify any or all outstanding Stock Rights granted under the Plan or Stock Rights to be granted under the Plan for favorable federal income tax treatment as may be afforded incentive stock options under Section 422 of the Code (including deferral of taxation upon exercise); to the extent necessary to qualify the shares issuable upon exercise or acceptance of any outstanding Stock Rights granted, or Stock Rights to be granted, under the Plan for listing on any national securities exchange or quotation in any national automated quotation system of securities dealers; and, in order to continue to comply with Section 162(m) of the Code. Any amendment approved by the

Administrator which the Administrator determines is of a scope that requires shareholder approval shall be subject to obtaining such shareholder approval. Any modification or amendment of the Plan shall not, without the consent of a Participant, adversely affect his or her rights under a Stock Right previously granted to him or her. With the consent of the Participant affected, the Administrator may amend outstanding Agreements in a manner which may be adverse to the Participant but which is not inconsistent with the Plan. In the discretion of the Administrator, outstanding Agreements may be amended by the Administrator in a manner which is not adverse to the Participant.

28. EMPLOYMENT OR OTHER RELATIONSHIP.

Nothing in this Plan or any Agreement shall be deemed to prevent the Company or an Affiliate from terminating the employment, consultancy or director status of a Participant, nor to prevent a Participant from terminating his or her own employment, consultancy or director status or to give any Participant a right to be retained in employment or other service by the Company or any Affiliate for any period of time.

29. GOVERNING LAW.

This Plan shall be construed and enforced in accordance with the laws of the Commonwealth of Massachusetts.

Exhibit 10.17

CYCLERION THERAPEUTICS, INC.

AMENDED AND RESTATED 2005 STOCK INCENTIVE PLAN

1. Purpose

The purpose of this Amended and Restated 2005 Stock Incentive Plan (the "Plan") of Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "Company"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to align their interests with those of the Company's stockholders. Except where the context otherwise requires, the term "Company" shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "Board"). The Plan has been adopted by the Board solely for the purpose of granting Awards in respect of equity-based awards previously granted under the Ironwood Pharmaceuticals, Inc. Amended and Restated 2005 Stock Incentive Plan (the "Ironwood 2005 Plan") and converted into equity-based awards of the Company pursuant to Article 5 of the Employee Matters Agreement by and between Ironwood Pharmaceuticals, Inc. and the Company dated as of , 2019 (the "Employee Matters Agreement"). The Plan is intended to mirror in all material respects the terms and conditions of the Ironwood 2005 Plan (other than those terms that are made inoperative by the separation of the Company's soluble guanylate cyclase business from Ironwood Pharmaceuticals, Inc.)

2. Eligibility

All employees, officers, directors, consultants and advisors of the Company and Ironwood Pharmaceuticals, Inc. who were granted options, restricted stock, restricted stock units and other stock-based awards (each, an "Award") under the Plan prior to the separation of the Company from Ironwood Pharmaceuticals, Inc., are eligible to participate in the Plan. Each person who receives an Award under the Plan is deemed a "Participant".

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by

the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). All references in the Plan to the "Board" shall mean the Board or a Committee of the Board to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

4. Stock Available for Awards. Subject to adjustment under Section 8, Awards may be made under the Plan for up to the lesser of (i) 350,000 shares of common stock of the Company (the "Common Stock") and (ii) that number of shares of Common Stock necessary to give effect to the grant of equity-based awards contemplated by Article 5 of the Employee Matters Agreement. Any shares of Common Stock underlying Awards that are forfeited, expired or are cancelled without the delivery of shares of Common Stock thereunder, shall be added to the number of shares of Common Stock that may be issued in satisfaction of awards under the Company's 2019 Equity Incentive Plan.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "Option"), and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option which is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a "Nonstatutory Stock Option".

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall only be granted to employees of the Company, any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or for any action taken by the Board pursuant to Section 9(f), including without limitation the conversion of an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement.

(e) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(f) for the number of shares for which the Option is exercised. Shares of Common Stock subject to

the Option will be delivered by the Company following exercise either as soon as practicable or, subject to such conditions as the Board shall specify, on a deferred basis (with the Company's obligation to be evidenced by an instrument providing for future delivery of the deferred shares at the time or times specified by the Board).

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as the Board may otherwise provide in an option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) by delivery of shares of Common Stock owned by the Participant valued at their fair market value as determined by (or in a manner approved by) the Board ("Fair Market Value"), provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent permitted by applicable law and by the Board, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(5) by any combination of the above permitted forms of payment.

(g) Substitute Options. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Options in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Options may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Options contained in the other sections of this Section 5 or in Section 2. Substitute Options shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

6. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock ("Restricted Stock"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. Instead of granting Awards for Restricted Stock, the

Board may grant Awards entitling the recipient to receive shares of Common Stock to be delivered at the time such shares of Common Stock vest ("Restricted Stock Units") (Restricted Stock and Restricted Stock Units are each referred to herein as a "Restricted Stock Award").

(b) Terms and Conditions. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any.

(c) Stock Certificates. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "Designated Beneficiary"). In the absence of an effective designation by a Participant, "Designated Beneficiary" shall mean the Participant's estate.

7. Other Stock-Based Awards

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("Other Stock Unit Awards"), including without limitation stock appreciation rights and Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock Unit Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock Unit Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the conditions of each Other Stock Unit Award, including any purchase price applicable thereto.

8. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan, (ii) the number and class of securities and exercise price per share of each outstanding Option, (iii) the repurchase price per share subject to each outstanding Restricted Stock Award, and (iv) the terms of each other outstanding Award shall be appropriately adjusted by the Company (or substituted Awards may be made, if applicable) to the extent determined by the Board.

(b) Reorganization Events

(1) Definition. A "Reorganization Event" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any exchange of all of the Common Stock of the Company for

cash, securities or other property pursuant to a share exchange transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock Awards. In connection with a Reorganization Event, the Board shall take any one or more of the following actions as to all or any outstanding Awards on such terms as the Board determines: (i) provide that Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards shall become exercisable in full and will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become realizable or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "Acquisition Price"), make or provide for a cash payment to a Participant equal to (A) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) minus (B) the aggregate exercise price of all such outstanding Options or other Awards, in exchange for the termination of such Options or other Awards, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof) and (vi) any combination of the foregoing.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Reorganization Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent value (as determined by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event. Notwithstanding the foregoing, for purposes of clause (i) above, in the event of a merger or consolidation of the Company (a) effected to reincorporate the Company outside of Massachusetts or (b) with or into a wholly-owned subsidiary of the Company (each of (a) and (b), an "Excluded Event"), an Option shall be considered assumed if following consummation of the Excluded Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Excluded Event by holders of such Common Stock for each share of such Common Stock held immediately prior to the consummation of the Excluded Event (and if holders were offered a choice of consideration, the type of

consideration chosen by the holders of a majority of the outstanding shares of such Common Stock); provided, however, that if the consideration received as a result of the Excluded Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent value (as determined by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Excluded Event.

To the extent all or any portion of an Option becomes exercisable solely as a result of clause (ii) above, the Board may provide that upon exercise of such Option the Participant shall receive shares subject to a right of repurchase by the Company or its successor at the Option exercise price; such repurchase right (x) shall lapse at the same rate as the Option would have become exercisable under its terms and (y) shall not apply to any shares subject to the Option that were exercisable under its terms without regard to clause (ii) above.

(3) Consequences of a Reorganization Event on Restricted Stock Awards. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

9. General Provisions Applicable to Awards

(a) Transferability of Awards. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. Each Participant shall pay to the Company, or make provision satisfactory to the Company for payment of, any taxes required by law to be withheld in connection with an Award to such Participant. Except as the Board may otherwise provide in an Award, for so long as the Common Stock is registered under the Exchange Act, Participants may satisfy such tax obligations in whole or in part by delivery of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares surrendered to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements. The Company may, to the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

10. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to new or continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship

with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the completion of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date. For the avoidance of doubt, no Awards shall be granted under the Plan except in accordance with Article 5 of the Employee Matters Agreement.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time.

(e) Authorization of Sub-Plans. The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable blue sky, securities or tax laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to this Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Code Section 409A. No Award shall provide for deferral of compensation that does not comply with Section 409A of the Code, unless the Board, at the time of grant, specifically provides that the Award is not intended to comply with Section 409A of the Code.

(g) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Massachusetts, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

ATTACHMENT I

CYCLERION THERAPEUTICS, INC.

Incentive Stock Option Agreement
Granted under Amended and Restated 2005 Stock Incentive Plan

1. Grant of Option.

This agreement evidences the grant by Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "Company"), on , 201 (the "Grant Date") to , an employee of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's Amended and Restated 2005 Stock Incentive Plan (the "Plan"), a total of shares (the "Shares") of Common Stock of the Company ("Common Stock") at $ per Share. Unless earlier terminated, this option shall expire on (the "Final Exercise Date").

It is intended that the option evidenced by this agreement shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

The option evidenced by this agreement is intended to qualify as an option substitution under Treas. Regs. §1.409A-1(b)(5)(v)(D) and Treas. Regs. §1.424-1(a), and will be construed accordingly. Without limiting the foregoing, this option will (i) expire not later than the latest date on which the corresponding Ironwood Pharmaceuticals, Inc. option (the "Ironwood Option") would have expired and (ii) be governed in all respects by the terms of the corresponding Ironwood Option, except for (A) the number and type of shares of Common Stock subject to this option, (B) the exercise price of this option, (C) the post-termination exercise provisions set forth herein, (D) the provisions of Section 8 of the Plan, (E) the provisions of the Plan applicable to governance, amendment, termination, administration, interpretation and similar matters, and (F) all other provisions of the Plan that as applied to this option would not be treated as inconsistent with satisfaction of the requirements of Treas. Regs. §1.409A-1(b)(5)(v)(D) and Treas. Regs. §1.424-1(a).

2. Vesting Schedule.

This option will become exercisable ("vest") as to . The shares subject to the portion of this option that are not yet exercisable are referred to herein as "Unvested Shares" and the shares subject to the portion of this option that have become exercisable are referred to herein as "Vested Shares".

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing in a form acceptable to the Administrator and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee or officer of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Discharge for Cause. If the Participant, prior to the Final Exercise Date, is discharged by the Company for "cause" (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such discharge. "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation, that discharge for cause was warranted.

4. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

5. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

6. Disqualifying Disposition.

If the Participant disposes of Shares acquired upon exercise of this option within two years from or one year after such Shares were acquired pursuant to exercise of this option, the Participant shall notify the Company in writing of such disposition.

7. Provisions of the Plan.

This option is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this option.

8. Participant's Acknowledgements.

By acceptance of this option, the Participant agrees to the terms and conditions hereof and acknowledges receipt of a copy of the Plan.

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

CYCLERION THERAPEUTICS, INC.

By: _____

ATTACHMENT II

CYCLERION THERAPEUTICS, INC.

Nonstatutory Stock Option Agreement
Granted under Amended and Restated 2005 Stock Incentive Plan

1. Grant of Option.

This agreement evidences the grant by Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "Company"), on , 201 (the "Grant Date") to , an employee of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's Amended and Restated 2005 Stock Incentive Plan (the "Plan"), a total of shares (the "Shares") of Common Stock of the Company ("Common Stock") at $ per Share. Unless earlier terminated, this option shall expire on (the "Final Exercise Date").

It is intended that the option evidenced by this agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

The option evidenced by this agreement is intended to qualify as an option substitution under Treas. Regs. §1.409A-1(b)(5)(v)(D) and will be construed accordingly. Without limiting the foregoing, this option will (i) expire not later than the latest date on which the corresponding Ironwood Pharmaceuticals, Inc. option (the "Ironwood Option") would have expired and (ii) be governed in all respects by the terms of the corresponding Ironwood Option, except for (A) the number and type of shares of Common Stock subject to this option, (B) the exercise price of this option, (C) the post-termination exercise provisions set forth herein, (D) the provisions of Section 8 of the Plan, (E) the provisions of the Plan applicable to governance, amendment, termination, administration, interpretation and similar matters, and (F) all other provisions of the Plan that as applied to this option would not be treated as inconsistent with satisfaction of the requirements of Treas. Regs. §1.409A-1(b)(5)(v)(D).

2. Vesting Schedule.

This option will become exercisable ("vest") as to . The shares subject to the portion of this option that are not yet exercisable are referred to herein as "Unvested Shares", and the shares subject to the portion of this option that have become exercisable are referred to herein as "Vested Shares".

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing in a form acceptable to the Administrator and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee or officer of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Discharge for Cause. If the Participant, prior to the Final Exercise Date, is discharged by the Company for "cause" (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such discharge. "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation, that discharge for cause was warranted.

4. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

5. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

6. Provisions of the Plan.

This option is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this option.

7. Participant's Acknowledgements.

By acceptance of this option, the Participant agrees to the terms and conditions hereof and acknowledges receipt of a copy of the Plan.

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

CYCLERION THERAPEUTICS, INC.

By: _____

ATTACHMENT III

CYCLERION THERAPEUTICS, INC.

Nonstatutory Stock Option Agreement
Granted under Amended and Restated 2005 Stock Incentive Plan

1. Grant of Option.

This agreement evidences the grant by Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "Company"), on , 201 (the "Grant Date") to , a consultant of the Company (the "Participant"), of an option to purchase, in whole or in part, on the terms provided herein and in the Company's Amended and Restated 2005 Stock Incentive Plan (the "Plan"), a total of shares (the "Shares") of Common Stock of the Company ("Common Stock") at $ per Share. Unless earlier terminated, this option shall expire on (the "Final Exercise Date").

It is intended that the option evidenced by this agreement shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code"). Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

The option evidenced by this agreement is intended to qualify as an option substitution under Treas. Regs. §1.409A-1(b)(5)(v)(D) and will be construed accordingly. Without limiting the foregoing, this option will (i) expire not later than the latest date on which the corresponding Ironwood Pharmaceuticals, Inc. option (the "Ironwood Option") would have expired and (ii) be governed in all respects by the terms of the corresponding Ironwood Option, except for (A) the number and type of shares of Common Stock subject to this option, (B) the exercise price of this option, (C) the post-termination exercise provisions set forth herein, (D) the provisions of Section 8 of the Plan, (E) the provisions of the Plan applicable to governance, amendment, termination, administration, interpretation and similar matters, and (F) all other provisions of the Plan that as applied to this option would not be treated as inconsistent with satisfaction of the requirements of Treas. Regs. §1.409A-1(b)(5)(v)(D).

2. Vesting Schedule.

This option will become exercisable ("vest") as to . The shares subject to the portion of this option that are not yet exercisable are referred to herein as "Unvested Shares" and the shares subject to the portion of this option that have become exercisable are referred to herein as "Vested Shares".

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be in writing in a form acceptable to the Administrator and received by the Company at its principal office, accompanied by this agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee or officer of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code (an "Eligible Participant").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon written notice to the Participant from the Company describing such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such relationship for "cause" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Discharge for Cause. If the Participant, prior to the Final Exercise Date, is discharged by the Company for "cause" (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such discharge. "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation, that discharge for cause was warranted.

4. Withholding.

No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

5. Nontransferability of Option.

This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

6. Provisions of the Plan.

This option is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this option.

7. Participant's Acknowledgements.

By acceptance of this option, the Participant agrees to the terms and conditions hereof and acknowledges receipt of a copy of the Plan.

IN WITNESS WHEREOF, the Company has caused this option to be executed under its corporate seal by its duly authorized officer. This option shall take effect as a sealed instrument.

CYCLERION THERAPEUTICS, INC.

By: _____

Exhibit 10.19

EXECUTION VERSION

AMENDED AND RESTATED

COMMON STOCK PURCHASE AGREEMENT

by and between

CYCLERION THERAPEUTICS, INC.,

and

THE INVESTORS NAMED HEREIN

Dated as of February 25, 2019

This AMENDED AND RESTATED COMMON STOCK PURCHASE AGREEMENT (this "***Agreement***"), dated as of February 25, 2019, is entered into by and between Cyclerion Therapeutics, Inc., a Massachusetts corporation (the "***Company***"), and the Persons named on the signature pages hereto under the heading "Investors", including those Persons who become parties to this Agreement after the date hereof as "Investors" by signing a Joinder (as defined below) pursuant to Section 1.2 (together, the "***Investors***"). Certain terms used and not otherwise defined in the text of this Agreement are defined in Section 9 hereof.

BACKGROUND

A. Pursuant to the terms of that certain Separation Agreement to be entered into by and between the Company and Ironwood Pharmaceuticals, Inc., a Delaware corporation ("***Ironwood***"), in substantially the form made available in the Company's electronic data room as of the date of the Original Agreement (as defined below) (including such agreement, the schedules thereto and the "Transaction Agreements" attached as exhibits thereto (and their respective schedules and exhibits), as the foregoing may be amended from time to time after the date of the Original Agreement, collectively, the "***Separation Agreement***"), Ironwood intends to separate into two separate, publicly traded companies, one for each of (i) the New Ironwood Pharmaceutical Business (as defined in the Separation Agreement), which shall be owned and conducted, directly or indirectly, by Ironwood and its subsidiaries and (ii) the Cyclerion Pharmaceutical Business (as defined in the Separation Agreement), which shall be owned and conducted, directly or indirectly, by the Company, if any (the "***Separation***").

B. The Company and the Investors have agreed that, pursuant to the terms of this Agreement, the Investors will purchase shares of the Common Stock of the Company ("***Common Stock***") immediately following the consummation of the Distribution. The shares of Common Stock to be sold to the Investors pursuant to this Agreement are referred to herein as the "***Shares***".

C. The Company and the Investors intend that, for U.S. federal income tax purposes, the Separation and the Distribution, taken together, will qualify as a reorganization within the meaning of Section 368(a)(1)(D) of the Code, and except for cash received in lieu of any fractional shares, the Distribution will qualify as tax-free under Section 355(a) of the Code to the stockholders of Ironwood and as tax-free to Ironwood under Section 361(c) of the Code (the "***Intended Tax Treatment***").

D. The Company and the Specified Investor entered into that certain Common Stock Purchase Agreement, dated as of January 7, 2019 (the "***Original Agreement***"), and, in accordance with Section 13.1 of the Original Agreement, the Company and the Specified Investor desire to amend and restate the Original Agreement in its entirety.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and the mutual representations, warranties and covenants herein contained, the parties hereto, intending to be bound, hereby agree as follows:

1. Sale and Purchase of the Shares; Additional Investors; Aggregate Sales Cap.

1.1. Sale and Purchase of Shares. Upon the terms and subject to the conditions herein contained, the Company shall sell to the Investors, and each Investor, severally and not jointly, shall purchase from the Company, at the Closing, the number of Shares determined by dividing (i) the amount set forth in the column entitled "Investor Commitment Amount" opposite such Investor's name on Schedule I attached hereto (the "***Investor Commitment Amount***") by (ii) the Purchase Price, rounded up to the nearest whole share. The "***Purchase Price***" shall be determined by dividing (i) the Pre-Money Valuation by (ii) the Shares Deemed Outstanding as of immediately prior to the Closing, rounded to the nearest 1/10 of one cent.

1.2. Additional Investors. During the period beginning on the date hereof and ending on the Closing Date, the Company may join, in its sole discretion, on substantially the same terms and conditions as those contained in this Agreement, additional parties as Investors hereto (each, an "***Additional Investor***"), and designate any such Additional Investor as a Specified Investor. Any such Additional Investor shall become a party to this Agreement as an "Investor" hereunder by signing a joinder agreement to this Agreement (each, a "***Joinder***"), and the name, address, and Investor Commitment Amount of such Additional Investor provided in such Joinder shall be added to Schedule I. The Parties hereto acknowledge that the Investors do not intend to form a "group" under the Securities Act or the Exchange Act, and to the knowledge of the Investors and the Company no such "group" has been formed.

1.3. Aggregate Sales Cap. Notwithstanding anything to the contrary contained herein, in no event shall the Testing Shares exceed the Ownership Cap. In the event that the Testing Shares to be issued to the Investors at Closing pursuant to this Agreement would exceed the Ownership Cap, then each Investor's Investor Commitment Amount shall be reduced on a pro rata basis so as to reduce the aggregate number of Shares to be issued to the Investors at Closing pursuant to this Agreement to the point at which the Testing Shares would not exceed the Ownership Cap, and no party hereto shall have any further obligation with respect to the excess of (x) each Investor's original Investor Commitment Amount, over (y) each Investor's Investor Commitment Amount as determined after the application of this Section 1.3.

1.4. Capped Investor. Notwithstanding anything to the contrary contained herein, in the event that (a) the aggregate Shares to be issued to the Capped Investors (as such term may be defined as mutually agreed between an Additional Investor and the Company in an Additional Investor's Joinder) pursuant to this Agreement at the Closing plus (b) the aggregate shares of Common Stock of the Company to be issued to the Capped Investors and the Other Capped Accounts (as such term may be defined as mutually agreed between an Additional Investor and the Company in an Additional Investor's Joinder) in connection with the

Distribution, would cause the Capped Investors, together with the Other Capped Accounts, to collectively own shares of Common Stock of the Company which would represent more than 9.99% of the shares of the Common Stock of the Company then outstanding (the "***Capped Investor Limitation***"), then each Capped Investor's Investor Commitment Amount shall be reduced on a pro rata basis so as to reduce the aggregate number of Shares to be sold and issued to the Capped Investors at Closing pursuant to this Agreement to the point at which such issuance would not exceed the Capped Investor Limitation, and no Capped Investor will have any further obligation with respect to the excess of (x) such Capped Investor's original Investor Commitment Amount, over (y) such Capped Investor's Investor Commitment Amount as determined after the application of this Section 1.4. The Company and the Capped Investors shall, at least three (3) Business Days prior to the anticipated Closing Date (or as otherwise mutually agreed to), work together to confirm (i) that the Investor Commitment Amounts for the Capped Investors, together with the Other Capped Accounts, do not exceed the Capped Investor Limitation, or (ii) if applicable, the amounts by which each Capped Investor's Commitment Amount shall be reduced in accordance with this Section 1.4.

2. Closing; Payment of Purchase Price; Use of Proceeds.

2.1. Closing. Upon the closing of the transactions contemplated in Section 1 hereof following the satisfaction or waiver of the conditions specified in Section 5 (the "***Closing***"), the Company shall issue to each Investor the number of Shares determined pursuant to the provisions of Section 1, against payment of the aggregate Purchase Price for such Shares by wire transfer to a bank account designated by the Company. The Closing shall take place at the offices of Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, Massachusetts 02199 immediately following the Distribution (and after the satisfaction or waiver of the other conditions specified in Section 5 (other than conditions that by their nature must be satisfied on the Closing Date)), and the Company shall provide each Investor with written notice of the anticipated Closing Date at least five (5) Business Days prior to such date, provided that the Closing may occur at such other location or time as the Company and the Required Investors may agree. The date on which the Closing occurs is hereinafter referred to as the "***Closing Date***".

2.2. Use of Proceeds. The Company shall use the proceeds from the sale of Shares hereunder to fund working capital and other general corporate purposes.

3. Representations and Warranties of the Investors. Each Investor, severally and not jointly, hereby represents and warrants to the Company as follows:

3.1. Organization. If such Investor is an entity, such Investor is duly formed or organized, validly existing and in good standing under the laws of its jurisdiction of organization or formation, and has all requisite corporate, limited liability company, partnership or trust (as the case may be) power and authority to enter into the Transaction Documents to which it is a party and perform its obligations thereunder. If such Investor is an individual, he or she has all requisite power and authority to enter into the Transaction Documents to which he or she is a party and perform his or her obligations thereunder.

3.2. Authorization; Enforceability. If such Investor is an entity, such Investor has full right, power, authority and capacity to enter into each of the Transaction Documents to which it is a party and to consummate the transactions contemplated by each such Transaction Document. If such Investor is an entity, the execution, delivery and performance of each of the Transaction Documents to which it is a party has been duly authorized by all necessary action on the part of such Investor and its equityholders. If such Investor is an individual, such Investor has the legal capacity to enter into each of the Transaction Documents to which he or she is a party and to consummate the transactions contemplated by each such Transaction Document. This Agreement has been duly executed and delivered by such Investor, and the other Transaction Documents and instruments referred to herein to which he, she or it is a party will be duly executed and delivered by such Investor at Closing, and each such agreement constitutes or at Closing will constitute a valid and binding obligation of such Investor enforceable against he, she or it in accordance with its terms, subject to bankruptcy, insolvency, fraudulent conveyance or other similar laws affecting creditors' rights generally and to general equitable principles.

3.3. Brokers. There is no investment banker, broker, finder, financial advisor or other person that has been retained by or is authorized to act on behalf of such Investor and who is entitled to any fee or commission in connection with the transactions contemplated by this Agreement other than such fees or commissions for which the Company will be solely responsible.

3.4. Investment Representations and Warranties. Such Investor understands that the offer and sale of Shares by the Company to the Investors as contemplated hereby has not been, nor (except pursuant to the provisions of Section 8) will be, registered under the Securities Act and is being made in reliance upon federal and state exemptions for transactions not involving a public offering which depend upon, among other things, the bona fide nature of the investment intent and the accuracy of such Investor's representations as expressed herein.

3.5. Acquisition for Own Account. Such Investor is acquiring the Shares for his, her or its own account for investment and not with a view toward distribution in a manner which would violate the Securities Act; it being understood that by making the representation contained in this Section 3.5, such Investor is not contractually agreeing to hold any of the Shares for any minimum period of time.

3.6. Ability to Protect Its Own Interests and Bear Economic Risks. Such Investor acknowledges that he, she or it can bear the economic risk and complete loss of his, her or its investment in the Shares and has such knowledge and experience in financial or business matters that he, she or it is capable of evaluating the merits and risks of the investment contemplated hereby.

3.7. Investor Status. Such Investor is an "accredited investor" as that term is defined in Regulation D promulgated under the Securities Act. Such Investor is not party to any voting agreements or similar arrangements with respect to the Shares. With regard to acquiring, holding, voting, or disposing of any stock of Ironwood or the Company, including the Shares, such Investor (a) has not acted in concert with any Person; (b) other than any Investors that are Affiliates of such Investor, is not, and has never been, a member or beneficiary of a trust,

partnership, limited partnership, syndicate, or other group with any agreement, understanding, or arrangement, whether formal or informal (for the avoidance of doubt, the fact that an Investor is a trust or partnership or limited partnership in and of itself shall not breach this clause (b)); and (c) has no plan or intention to enter into an arrangement described in clause (a) or clause (b).

3.8. Foreign Investors. If such Investor is not a United States person (as defined by Section 7701(a)(30) of the Code), such Investor hereby represents that he, she or it has satisfied itself as to the full observance of the laws of his, her or its jurisdiction in connection with any invitation to subscribe for the Shares, including (i) the legal requirements within his, her or its jurisdiction for the purchase of the Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Shares.

3.9. Consents. The execution, delivery and performance by such Investor of the Transaction Documents require no consent of, authorization by, exemption from, filing with or notice to any Governmental Entity or any other Person.

3.10. No Violations. The execution, delivery and performance by such Investor of, and compliance with, each of the Transaction Documents, and the consummation by such Investor of the transactions contemplated by each of the Transaction Documents (including, without limitation, the issuance and sale of the Shares) will not (a) if such Investor is an entity, result in a violation of the organizational documents of such Investor, (b) violate or result in the breach of the terms, conditions or provisions of or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give rise to any right of termination, acceleration or cancellation under, any agreement, lease, mortgage, license, indenture, instrument or other contract to which such Investor is a party, (c) result in a violation of any law, rule, regulation, order, judgment or decree (including, without limitation, U.S. federal and state securities laws and regulations) applicable to such Investor or by which any property or asset of such Investor is bound or affected, (d) result in a violation of any rule or regulation of FINRA or any Trading Markets or (e) result in the creation of any Encumbrance upon any of such Investor's assets, in each case (other than with respect to foregoing clause (a)) except for such violations, defaults, rights of termination, acceleration or cancellation, or Encumbrances that would not have a material adverse effect on such Investor's ability to perform his, her or its obligation under the Transaction Documents. If such Investor is an entity, such Investor is not in violation of its organizational documents.

3.11. Access to Information. Such Investor has been given access to Company documents, records and other information he, she or it has requested, and has had adequate opportunity to ask questions of, and receive answers from, the Company's officers, employees, agents, accountants, and representatives concerning the Company's business, operations, financial condition, assets, liabilities and all other matters relevant to his, her or its investment in the Shares. Neither such inquiries nor any other investigation conducted by or on behalf of such Investor or his, her or its representatives or counsel shall modify, amend or affect such Investor's right to rely on the truth and accuracy of the Company's representations and warranties contained in this Agreement.

3.12. Restricted Securities. Such Investor understands that the Shares will be characterized as "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such Shares may be resold without registration under the Securities Act only in certain limited circumstances, and such Investor further understands that the Shares will be subject to the transfer restrictions and legending requirements specified in Section 7.

3.13. Sufficient Funds. Such Investor has sufficient funds available to him, her or it to pay his, her or its full Investor Commitment Amount at Closing.

3.14. Ownership of Ironwood and Company Stock.

(a) Any acquisition or disposition of any shares of Ironwood stock by such Investor or any Investor Tax Affiliate of such Investor on or after May 1, 2018, was made in the ordinary course of Investor's business to realign such Investor's (or its Investor Tax Affiliates') portfolio in order to reflect such Investor's or its Investor Tax Affiliates' investment objectives, strategies, policies (including risk policies), or restrictions, or changes in assets under management ("***Investment Policies***," and such acquisitions and dispositions, "***Investment Trades***").

(b) Neither such Investor nor any of its Investor Tax Affiliates has changed any of its Investment Policies as a result of, or in connection with, the Separation, and in no instance were such Investment Policies based on the investment decision of one or more other existing or prospective shareholders of Ironwood or the Company.

(c) 10% Shareholders

(i) Except as set forth on Schedule I, such Investor, together with its Investor Tax Affiliates and Investor Commission Affiliates, (A) has not at any time since May 1, 2018, been a 10% Shareholder, (B) has no plan or intention as of the date of such Investor's entrance into this Agreement to become a 10% Shareholder, and (C) will, as of the Closing, have no plan or intention to become a 10% Shareholder.

(ii) Solely for purposes of this clause (c), if such Investor is a mutual fund (a "***Fund***"), shares of Company stock owned by its Investor Commission Affiliates will not be taken into account in determining whether such Investor is a 10% Shareholder to the extent that, except as set forth on Schedule I, all of the following requirements are satisfied:

(A) The Investor is managed by a separate management team that makes investment decisions for the Investor that are unrelated to the investment decisions made by any other management team for or on behalf of any other Person (for

the avoidance of doubt, members of a management team are separate from other employees, officers, and directors of a Person provided no such employee, officer, or director participates, or is expected to participate, in the day-to-day investment decisions of the management team);

(B) The Investment Policies of such Investor are materially different than the Investment Policies applicable to shares owned beneficially by each of such Investor's Investor Commission Affiliates;

(C) Such Investor would satisfy the requirements of this Section 3.14, without regard to any reference to "Investor Commission Affiliate" in each clause of this Section 3.14, other than this clause (c)(ii); and

(D) The same Persons do not own, for U.S. federal income tax purposes, 50 percent or more of the equity of such Investor and of any Person (including another Fund) or account, the securities of which are treated as beneficially owned by such Investor Commission Affiliate pursuant to the rules and regulations of the Commission.

(d) Such Investor's investment in the Shares is based solely on the Investment Policies of itself and its Investor Tax Affiliates and is being made without regard to (i) the Investment Policies of any Person other than such Investor and its Investor Tax Affiliates, (ii) any effect such Investor's investment may or may not have on any other Person's decision to invest in Shares, or (iii) any ownership or prospective ownership of stock of Ironwood or the Company by any other Person. Neither such Investor nor any of its Investor Tax Affiliates has had any discussions or negotiations with any other Investor or any of any other Investor's Investor Tax Affiliates regarding the terms of purchase and sale of Shares pursuant to this Agreement.

(e) Neither the Investor nor any of its Investor Tax Affiliates, alone or acting together, is seeking to obtain a seat on the board of directors of Ironwood or the Company or to otherwise actively participate in the management or operations of the Company, or has any plan or intention to do so; and no shares of Company stock, including the Shares, will have been acquired or held with the purpose of or with the effect of changing or influencing the control of the Company or in connection with or as a participant in any transaction having that purpose or effect, or that would otherwise be inconsistent with an investment "solely for the purpose of a passive investment" within the meaning of 31 Code of Federal Regulations Section 800.223.

(f) Neither such Investor nor any of its Investor Tax Affiliates has a current plan or intention to sell, exchange, or otherwise dispose of any stock of Ironwood or the Company as of the date of such Investor's entrance into this Agreement and will not have

any such plan or intention with respect to any stock of the Company as of the Closing. For purposes of this clause (f) and for the avoidance of doubt, Investor anticipates that it may dispose of some or all of such shares in the future.

(g) Any acquisitions or dispositions of Ironwood or Company stock by such Investor or any of its Investor Tax Affiliates occurring after the date hereof will be Investment Trades based solely on market conditions or investment considerations existing at such time.

(h) If such Investor is a Specified Investor, such Investor is not acting as an agent, directly or indirectly, for Ironwood or the Company or the management of either of them, and is not soliciting, arranging, or negotiating acquisitions of Shares by any other Person for its own benefit or on behalf of Ironwood or the Company or the management of either company.

(i) If such Investor is a Specified Investor, such Investor has negotiated the terms of its Shares purchase solely on its own behalf and is not acting as an agent or other representative directly or indirectly for any other Person to acquire any Shares.

3.15. No Solicitation. The Shares were not offered or sold to such Investor by any form of general advertising or general solicitation as contemplated under Rule 502(c) in Regulation D promulgated under the Securities Act or otherwise.

3.16. Bad Actor Disqualifications. Such Investor: (i) if a natural person, represents on his or her behalf; or (ii) if a corporation, partnership, or limited liability company or partnership, or association, joint stock corporation or other entity, represents on its behalf and the behalf of its officers, directors and principal stockholders, that he, she or it is not subject to any "Bad Actor" disqualifications described in Rule 506(d)(1) (subject to Rule 506(d)(2) and 506(d)(3)) with respect to the Company.

3.17. OFAC. Neither such Investor nor, as of the date hereof to the knowledge of the Investor, any director, officer, agent, employee or person acting on behalf of the Investor is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("***OFAC***").

4. Representations and Warranties by the Company. The Company represents and warrants to the Investors, subject to exceptions for the disclosures in (x) the schedules included in the Separation Agreement or (y) the Information Statement filed as Exhibit 99.1 to the Form 10 and the other exhibits thereto (other than any information in the "Risk Factors" or "Cautionary Statement Concerning Forward-Looking Statements" sections of such Form 10), as follows:

4.1. Capitalization.

(a) As of the Closing Date, all of the issued and outstanding shares of capital stock of the Company will be duly authorized, validly issued, fully paid and non-assessable and have been issued in compliance with all federal and state securities laws.

(b) No Person is entitled to pre-emptive rights with respect to any securities of the Company. Except as set forth in the Form 10 and as contemplated by the Separation Agreement (including with respect to options and restricted stock units, as contemplated by the formulae and terms and conditions contained therein, as they may be amended from time to time), there are no outstanding warrants, options, convertible securities or other rights, agreements or arrangements of any character under which the Company is or may be obligated to issue any amounts of equity securities of any kind.

(c) As of the date of the Original Agreement, Ironwood is sole shareholder of the Company. At the Closing, the sole equity securities outstanding shall be those distributed to the shareholders of Ironwood pursuant to the Distribution, the Shares issued to Investors hereunder, and the options to purchase securities and restricted stock units granted to employees, directors or other service providers of the Company or Ironwood (as contemplated by the formulae and terms and conditions contained in Form 10 and the Separation Agreement, as they may be amended from time to time).

(d) The Company has no obligation (contingent or otherwise) to purchase, redeem or otherwise acquire any of its equity securities or any interests therein or to pay any dividend or make any distribution in respect thereof.

(e) Except as may be provided in the Separation Agreement or the Transaction Documents, there are no voting agreements, buy-sell agreements or right of first purchase agreements between the Company, on the one hand, and any of the stockholders of the Company, on the other hand, relating to the securities of the Company held by them.

(f) The issuance and sale of the Shares hereunder will not obligate the Company to issue shares of Common Stock or other securities to any other Person (other than the Investors).

(g) The Company does not have outstanding any stockholder rights plans or "poison pill" or any similar arrangement in effect giving any Person the right to purchase any equity interest in the Company upon the occurrence of certain events.

(h) As of the Closing Date, the rights, preferences, privileges and restrictions of the Common Stock will be as stated in the Articles of Organization and Bylaws of the Company.

4.2. Issuance of Securities. As of the Closing Date, the Shares being purchased by the Investors hereunder will be duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued, fully paid and nonassessable and will be free and clear of any Encumbrances or restrictions on transfer other than restrictions under the Transaction Documents, the Articles of Organization and Bylaws, under applicable state and federal securities laws, or any Encumbrances created by an Investor on its Shares. The sale of the Shares hereunder is not subject to any preemptive rights, rights of first refusal or other

similar rights or provisions contained in the Articles of Organization, Bylaws or any agreement to which the Company is a party. Assuming the accuracy of the representations and warranties of each Investor in Section 3 hereof, the Shares will be issued in compliance with all applicable federal and state securities laws.

4.3. Incorporation and Good Standing of the Company. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation and has the corporate power and authority to own, lease and operate its properties and to conduct its business as currently conducted and as described in the Form 10 and to enter into and perform its obligations under this Agreement. The Company is duly qualified to transact business and is in good standing in the Commonwealth of Massachusetts and each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except whether the failure to so qualify or be in good standing would not have a Material Adverse Effect.

4.4. Subsidiaries. The Company has no Subsidiaries.

4.5. Consents. The execution, delivery and performance by the Company of the Transaction Documents and the offer, issuance and sale of the Shares require no consent of, authorization by, exemption from, filing with or notice to any Governmental Entity or any other Person, other than (a) notification to any Trading Market on which any of the securities of the Company are listed or designated in connection with the issuance and sale of the Shares hereunder, (b) the filings required to comply with the Company's registration obligations pursuant to Section 8 and (c) compliance with applicable U.S. federal and state securities laws, which compliance will have occurred within the appropriate time periods.

4.6. Authorization; Enforcement.

(a) The Company has all requisite corporate power and has taken all necessary corporate action required for (a) the due authorization, execution, delivery and performance by the Company of each of the Transaction Documents, (b) the authorization of the performance of all obligations of the Company under each of the Transaction Documents, and (c) the authorization, issuance and delivery of the Shares. This Agreement has been duly executed and delivered by the Company, and the other Transaction Documents and instruments referred to herein to which it is a party will be at Closing duly executed and delivered by the Company, and at Closing each such agreement constitutes or will constitute a valid and binding obligation of the Company enforceable against it in accordance with its terms, subject to bankruptcy, insolvency, fraudulent conveyance or other similar laws affecting creditors' rights generally and to general equitable principles.

(b) On or prior to the date of the Original Agreement, the Board of Directors of the Company (the "***Board***") has duly adopted resolutions, among other things, authorizing and approving each of the Transaction Documents and the transactions contemplated thereby.

4.7. No Violations. The Company is not in violation of its articles of organization or bylaws and the execution, delivery and performance by the Company of, and compliance with, each of the Transaction Documents, and the consummation by the Company of the transactions contemplated by each of the Transaction Documents (including, without limitation, the issuance and sale of the Shares) will not (a) result in a violation of its articles of organization or bylaws, (b) violate or result in the breach of the terms, conditions or provisions of or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give rise to any right of termination, acceleration or cancellation under, any agreement, lease, mortgage, license, indenture, instrument or other contract to which the Company is a party, (c) result in a violation of any law, rule, regulation, order, judgment or decree (including, without limitation, U.S. federal and state securities laws and regulations) applicable to the Company or by which any property or asset of the Company is bound or affected, (d) result in a violation of any rule or regulation of FINRA or any Trading Markets or (e) result in the creation of any Encumbrance upon any of the Company's assets, in each such case (other than with respect to foregoing clause (a)) except for such violations, defaults, rights of termination, acceleration or cancellation, or Encumbrances that would not have a Material Adverse Effect.

4.8. Material Contracts. Each Material Contract of the Company (as of the Closing Date) will be as disclosed in the Effective Form 10. Except as would not have a Material Adverse Effect, as of the Closing Date: (i) each Material Contract will be the legal, valid and binding obligation of the Company enforceable against the Company and, to the knowledge of the Company as of the date of the Original Agreement, any other party thereto, in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy, insolvency, fraudulent conveyance or other similar laws affecting creditors' rights generally and by general equitable principles; and (ii) there shall not have occurred any breach, violation or default or any event that, with the lapse of time, the giving of notice or the election of any Person, or any combination thereof, would constitute a breach, violation or default by the Company under any such Material Contract or, to the knowledge of the Company, by any other Person to any such Material Contract. From May 1, 2018 until the date of the Original Agreement, the Company has not been notified that any party to any Material Contract intends to cancel, terminate or not renew any Material Contract, whether in connection with the transactions contemplated hereby or otherwise.

4.9. Voting Rights. Other than as provided by the Transaction Documents or any agreement or other document listed as an exhibit to the Form 10, there are no provisions in its articles of organization or bylaws or any instrument or contract to which the Company is a party which (a) is reasonably likely to affect or restrict the voting rights of the Investors with respect to the Shares in their capacity as stockholders of the Company, (b) is reasonably likely to adversely affect the Company's or the Investors' right or ability to consummate the transactions contemplated by, or comply with the terms of, the Transaction Documents, or (c) as of the date of the Original Agreement entitle any party to nominate or elect any director of the Company or require any of the Company's stockholders to vote for any such nominee or other person as a director of the Company.

4.10. No Integrated Offering. Neither the Company, nor any other Person acting on the Company's behalf, has directly or indirectly engaged in any form of general solicitation or general advertising with respect to the Shares nor have any of such Persons made any offers or sales of any security of the Company or solicited any offers to buy any security of the Company under circumstances that would require registration of the Shares under the Securities Act or cause this offering of Shares to be integrated with any prior offering of securities of the Company for purposes of the Securities Act or any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

4.11. Offering; Exemption. Assuming the accuracy of the Investors' representations and warranties set forth in Section 3 of this Agreement, no registration under the Securities Act or any applicable state securities law is required for the offer and sale of Shares by the Company to the Investors as contemplated hereby.

4.12. Form 10; Financial Statements.

(a) The Form 10 complies as to form in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, as applicable. As of the date that the Form 10 shall have been declared effective by the Commission, the Form 10 will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(b) The pro forma financial statements of the Company included in the Form 10 present fairly, in all material respects, the financial position of the business of the Company as of the dates indicated. Such pro forma financial statements have been prepared in conformity with GAAP applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto and except in the case of unaudited financial statements, which may be subject to normal recurring year-end adjustments and may not contain certain footnotes as permitted by applicable rules of the Commission.

(c) As of the Closing Date, the Company will maintain a system of internal accounting controls that the Company believes will be sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset and liability accountability, (iii) access to assets or incurrence of liabilities is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets and liabilities is compared with the existing assets and liabilities at reasonable intervals and appropriate action is taken with respect to any differences.

(d) The Company will be in compliance in all material respects with all of the provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of

the Closing Date. As of the Closing Date, the Company will have established disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act) for the Company and designed such disclosure controls and procedures in a manner that the Company believes ensures that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act will be recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms.

4.13. Undisclosed Liabilities. There are no liabilities of the Company that would be required to be reflected in its unaudited balance sheet as of September 30, 2018 in accordance with GAAP, other than liabilities:

(a) reflected or reserved for in the unaudited balance sheet as of September 30, 2018 included in the Form 10;

(b) created under, or incurred in connection with, the Transaction Documents;

(c) executory obligations under Material Contracts; or

(d) which would not in the aggregate have a Material Adverse Effect.

4.14. Litigation. Except as set forth in the Form 10, (a) there is no action, suit, proceeding, inquiry or (to the knowledge of the Company) investigation (an "Action") brought by or before any Governmental Entity now pending or, to the knowledge of the Company, threatened against or affecting the Company, which would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect or materially and adversely affect the consummation of the transactions contemplated by the Transaction Documents or the performance by the Company of its obligations thereunder, and (b) the Company is not in default in any material respect with respect to any judgment, order or decree of any Governmental Entity. Neither the Company, nor to the Company's knowledge, any director or officer of the Company, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, in each case, involving the Company or Ironwood and its subsidiaries. There has not been, and to the knowledge of the Company there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company.

4.15. Taxes. The Company has filed all income and other material federal, foreign, state, local and other tax returns that are required to be filed or has properly requested extensions thereof and has paid all material taxes required to be paid and, if due and payable, any related or similar assessment, fine or penalty levied against it, except as may be being contested in good faith and by appropriate proceedings or reserved for on the Company's books. The Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 4.12 hereof in respect of all taxes for all periods prior to the date of the most recent financial statement referred to therein as to which the tax liability of the Company has not been finally determined.

4.16. Employee Matters.

(a) (i) No director or officer or other employee of the Company will become entitled to any retirement, severance or similar benefit or enhanced or accelerated benefit (including any acceleration of vesting) or lapse of repurchase rights or obligations with respect to any employee benefit plan subject to ERISA or other benefit under any compensation plan or arrangement of the Company (each, an "***Employee Benefit Plan***") solely as a result of the issuance of Shares pursuant to this Agreement; and (ii) no payment made or to be made to any current or former employee or director of the Company, or any of its controlled Affiliates by reason of the issuance of Shares pursuant to this Agreement (whether alone or in connection with any other event, including, but not limited to, a termination of employment) will constitute an "excess parachute payment" within the meaning of Section 280G of the Code. As of the date of the Original Agreement, no executive officer of the Company (as defined in Rule 501(f) of the Securities Act) set forth in the Form 10 has notified the Company that such officer intends to leave the Company or otherwise terminate such officer's employment with the Company.

(b) As of the date of the Original Agreement, no officer or employee of the Company, to the knowledge of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant, and, to the knowledge of the Company, the continued employment of each such officer or employee does not subject the Company to any material liability with respect to any of the foregoing matters.

(c) The Company is in compliance in all material respects with all applicable federal, state, local and foreign statutes, laws (including, without limitation, common law), judicial decisions, regulations, ordinances, rules, judgments, orders and codes respecting employment, employment practices, labor, terms and conditions of employment and wages and hours, and no work stoppage or labor strike against the Company is pending or, to the knowledge of the Company, threatened, nor is the Company involved in or, to the knowledge of the Company, threatened with any labor dispute, grievance or litigation relating to labor matters involving any employees of the Company, except for any of the foregoing which would not have a Material Adverse Effect. As of the date of the Original Agreement, to the Company's knowledge, there are no material suits, actions, disputes, claims (other than routine claims for benefits), investigations or audits pending or, to the knowledge of the Company, threatened in connection with any Employee Benefit Plan. None of the Company's employees is a member of a union that relates to such employee's relationship with the Company, and the Company is not a party to a collective bargaining agreement.

4.17. Compliance with Laws. The Company (i) is not in violation of any applicable federal, state, local, foreign or other law, statute, regulation, rule, ordinance, code convention, directive, order, judgment or other legal requirement (collectively, "***Laws***") of any Governmental Entity, except in any such case for any violation as would not, individually or in

the aggregate, have a Material Adverse Effect and (ii) as of the date of the Original Agreement, to the knowledge of the Company, is not being investigated with respect to, or has been threatened in writing to be charged with or given notice of any violation in any material respect of, any applicable Law.

4.18. Brokers. Except as set forth in Schedule 4.18, there is no investment banker, broker, finder, financial advisor or other person that has been retained by or is authorized to act on behalf of the Company and who is entitled to any fee or commission in connection with the sale of Shares pursuant to this Agreement.

4.19. Environmental Matters. The Company (A) is in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, "***Environmental Laws***"); (B) has received and is in compliance with all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its business; and (C) as of the date of the Original Agreement, has not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in any such case of clauses (A), (B) or (C), for any such failure to comply, or failure to receive required permits, licenses or approvals, or liability as would not, individually or in the aggregate, have a Material Adverse Effect.

4.20. Intellectual Property Matters. Except as set forth in the Form 10 and the Separation Agreement, as of the Closing Date, (a) the Company will be the owner of, or will have obtained valid and enforceable licenses for, the registered Intellectual Property; (b) to the knowledge of the Company, there will be no third parties who have rights to any Intellectual Property, except for customary reversionary rights of third-party licensors with respect to Intellectual Property that is exclusively licensed to the Company; (c) to the knowledge of the Company, there will be no material infringement by third parties of any Intellectual Property; (d) there will be no pending or, to the knowledge of the Company, threatened material action, suit, proceeding or claim by others: (i) challenging the Company's rights in or to any Intellectual Property; (ii) challenging the validity or ownership of any Intellectual Property; or (iii) asserting that the Company infringes, misappropriates or otherwise violates, or would, upon the commercialization of any product or service infringe, misappropriate or violate any patent, trademark, trade name, service name, copyright, trade secret or other proprietary rights of others; and (e) to the knowledge of the Company, (x) the patent applications within the Intellectual Property will be prepared, filed and prosecuted in good faith in all material respects and (y) all inventors will be properly identified on such patent applications and all patents within the Intellectual Property in all material respects. Following the consummation of the Separation, the Company will have written agreements with its employees and contractors involved in the creation of Intellectual Property that oblige each employee or contractor, as applicable, to: (i) assign to the Company all Intellectual Property created or provided in the course of their employment or engagement (except for certain exceptions as may be agreed to with such persons for inventions not related to the discovery research or development of products containing a soluble guanylate cyclase stimulator); and (ii) keep Intellectual Property, as applicable, confidential and to safeguard it from unauthorized access, use, copying and disclosure. As of the

Closing Date, the Intellectual Property will constitute all material inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets, know-how and other intellectual property that are necessary to operate the business of the Company as conducted as of the Closing Date, other than the Ironwood name and mark.

4.21. Related-Party Transactions. Except for the transactions contemplated hereby and as set forth in the Form 10 and the Separation Agreement, as of the Closing Date, there will be no business relationships or related-party transactions involving the Company or any other person of the type required to be disclosed in the Form 10 pursuant to Item 404 of Regulation S-K promulgated by the Commission.

4.22. Title to Property and Tangible Assets. Except as set forth in the Form 10 and the Separation Agreement, as of the Closing Date, the Company will have good title to all of the real and tangible personal property and other tangible assets owned by the Company, in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, adverse claims and other defects ("***Liens***"), except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties.

4.23. Absence of Changes. From December 31, 2017 to the date of the Original Agreement, except as set forth in Form 10 or as contemplated by the Transaction Documents, there has not been:

(1) any declaration, setting aside or payment of any dividend or other distribution with respect to any shares of capital stock of the Company or any repurchase, redemption or other acquisition by the Company of any outstanding shares of its capital stock;

(2) any material change or amendment to a contract filed as an exhibit to the Form 10 that is material to the Company;

(3) material alteration in its method of accounting, except as required by GAAP;

(4) any agreement or commitment by the Company to do any of the foregoing; or

(5) any change, development, occurrence or event that has had or would reasonably be expected to have a Material Adverse Effect.

4.24. Foreign Corrupt Practices Act. As of the date of the Original Agreement, neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or other person acting on behalf of the Company has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or

indirect unlawful payment to any domestic government official, "foreign official" (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the "***FCPA***")) or employee from corporate funds; (iii) violated or is in violation of any provision of the FCPA or, to the knowledge of the Company, any applicable non-U.S. anti-bribery statute or regulation; (iv) failed to disclose any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law or (v) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any domestic government official, such foreign official or employee; and the Company has conducted its business in compliance in all material respects with the FCPA and has policies and procedures designed to comply, and which are reasonably expected to continue to comply, with the FCPA in all material respects.

4.25. Money Laundering Laws. The operations of the Company are conducted in compliance in all material respects with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, and to the knowledge of the Company, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "***Money Laundering Laws***") and as of the date of the Original Agreement, no action or suit by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

4.26. OFAC. Neither the Company nor, as of the date of the Original Agreement to the knowledge of the Company, any director, officer, agent, employee or person acting on behalf of the Company is currently subject to any U.S. sanctions administered by OFAC; and the Company will not directly or indirectly use the proceeds herefrom, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person, or in any country or territory, that currently is subject to any U.S. sanctions administered by OFAC or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of U.S. sanctions administered by OFAC.

4.27. Regulatory Permits. Except as set forth in the Form 10 and the Separation Agreement, as of the Closing Date, (a) the Company will have such permits, licenses, certificates, approvals, clearances, authorizations or amendments thereto (the "***Regulatory Permits***") issued by the appropriate federal, state, local or foreign regulatory agencies or bodies necessary to conduct the business of the Company as currently conducted and as described in the Form 10, including, without limitation, any Investigational New Drug Application ("***IND***") as required by the United States Food and Drug Administration ("***FDA***") or authorizations issued by federal, state, local or foreign agencies or bodies engaged in the regulation of pharmaceuticals and biological products such as those being developed by the Company (collectively, "***Regulatory Authorities***"), and (b) the Company will be in compliance in all material respects with the requirements of the Regulatory Permits, and all of the Regulatory Permits will be valid and in full force and effect, in each case in all material respects. As of the date of the Original

Agreement, the Company has not received any notice of proceedings relating to the revocation, termination, modification or impairment of any of the Regulatory Permits.

4.28. Preclinical and Clinical Data and Regulatory Compliance. The preclinical tests and clinical trials (collectively, "***Studies***") that are described in, or the results of which are referred to in, the Form 10 were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures and controls designed and approved for such Studies and each description of the results of such Studies is accurate and complete in all material respects, and as of the date of the Original Agreement the Company has no knowledge of any other studies the results of which are inconsistent in any material respect with, or otherwise call into question, the results described in the Form 10. Except as set forth in the Form 10, as of the date of the Original Agreement, the Company has not received any written notice of, or correspondence from, any Regulatory Authority or institutional review board requiring the termination, suspension or material modification of any Studies that are described or referred to in the Form 10 and the Company has operated and currently is in compliance in all material respects with applicable laws, rules, regulations and policies of the Regulatory Authorities, including current Good Laboratory Practices and current Good Clinical Practices.

4.29. Insurance. Except as set forth in the Form 10 and the Separation Agreement, as of the Closing Date, (i) the Company will be insured by reputable institutions with policies in such amounts and with such deductibles and covering such risks as the Company reasonably believes are generally deemed adequate and customary for its business including, but not limited to, policies covering real and personal property owned or leased by the Company and policies covering the Company for product liability claims and clinical trial liability claims and, (ii) to the Company's knowledge, the Company will be able (a) to renew its existing insurance coverage as and when such policies expire and (b) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not have a Material Adverse Effect. As of the date of the Original Agreement, the Company has not been denied any insurance coverage which it has sought or for which it has applied. Without limiting the generality of the foregoing, as of the Closing Date the Company will carry director and officer insurance with customary coverage limits reasonable for a Company of its size.

4.30. Investment Company. The Company is not, and will not be, immediately following receipt of payment for the Shares being purchased pursuant to this Agreement, required to register as an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

4.31. Accountants. Ernst & Young LLP, who expressed its opinion with respect to the financial statements included in the Form 10, is (a) an independent registered public accounting firm as required by the Securities Act, the Exchange Act and the rules of the Public Company Accounting Oversight Board ("***PCAOB***"), (b) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X under the Securities Act and (c) a registered public accounting firm as defined by the PCAOB whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn.

4.32. Disclosure. As of the Closing Date, the Company will have made disclosures so that, to the Company's knowledge, the Investors will not be in possession of any material, non-public information with respect to the Company provided to the Investors by the Company or its officers or directors or any other representative acting on the Company's behalf. The Company understands and confirms that the Investors will rely on the representations contained in the first sentence of this Section 4.32 in effecting transactions in securities of the Company.

4.33. No Other Representations and Warranties. The representations and warranties set forth in this Section 4 are the only representations and warranties made by the Company (or any of its Affiliates) with respect to the transactions contemplated by this Agreement. Except for the representations and warranties expressly set forth in this Section 4, none of the Company or its Affiliates makes any other express or implied representation or warranty with respect to the Company or any of its Affiliates, and each of the Company and its Affiliates hereby disclaim all liability and responsibility for any and all projections, forecasts, estimates, plans or prospects (including the reasonableness of the assumptions underlying such forecasts, estimates, projections, plans or prospects), management presentations, financial statements, internal ratings, financial information, appraisals, statements, promises, advice, data or information made, communicated or furnished (orally or in writing, including electronically) to any Investor or any of its Affiliates or representatives, including omissions therefrom.

5. Conditions of Parties' Obligations.

5.1. Conditions of the Investors' Obligations at the Closing. The obligations of the Investors to purchase the Shares set forth on Schedule I attached hereto at the Closing (except where otherwise specified) are subject to the fulfillment prior to the Closing Date of all of the following conditions, any of which may be waived in whole or in part by the Required Investors in their sole discretion.

(a) Representations and Warranties. The representations and warranties of the Company contained in Section 4 of this Agreement shall be true and correct as of immediately prior to the Closing as though such representations and warranties were made, as written herein, as of immediately prior to the Closing (subject to the specified time periods, as applicable, qualifying such representations and warranties), except where the failure of such representations and warranties to be so true and correct does not constitute, individually or in the aggregate, a Material Adverse Effect.

(b) Performance. The Company shall have performed in all material respects all covenants and agreements contained in this Agreement required to be performed by the Company on or prior to the Closing.

(c) Supporting Documents. The Investors at the Closing shall have received the following:

(1) A good standing certificate of the Company from the secretary of state of the state of the Company's jurisdiction of incorporation, if good standing certificates are issuable in its jurisdiction of incorporation;

(2) Copies of resolutions of the Board, certified by the Secretary of the Company, authorizing and approving the execution, delivery and performance of the Transaction Documents and all other documents and instruments to be delivered pursuant hereto and thereto;

(3) A copy of the Articles of Organization and Bylaws of the Company, certified by the Secretary of the Company; and

(4) A certificate of incumbency executed by the Secretary of the Company certifying the names, titles and signatures of the officers authorized to execute the documents referred to in subparagraphs (2) and (3) above.

(d) Trading Market Listing. The Common Stock shall be listed on a Trading Market.

(e) No Material Adverse Effect. Since the date of the Original Agreement, except as set forth in the Form 10 or the Separation Agreement, or as contemplated by the Transaction Documents, there shall not have occurred a Material Adverse Effect.

(f) Form 10 Effectiveness. The Form 10 shall have been declared effective by the Commission (the "***Effective Form 10***"); provided, however, that in the event the Effective Form 10 contains any change or changes (taking into account, without limitation, any change or changes to the Material Contracts and pro forma financial statements disclosed therein, but excluding any change or changes in the Effective Separation Agreement (which is addressed in clause (g) below) from the draft Form 10 made available in the Company's electronic data room as of the date of the Original Agreement, and such change or changes, individually or in the aggregate, affect the business, assets and/or liabilities of the Company (taken as a whole) and are required changes from such draft Form 10 in order to ensure that the Effective Form 10 does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading (other than with respect to any amendment(s): (w) to the provisions referred to in Schedule 5.1 hereto, (x) to which the Investor Consent was obtained for purposes of clause (g) below, (y) relating to any (i) forecasts, estimates, expectations, timetables or similar forward looking considerations, and for the avoidance of doubt, including any such information in the "Risk Factors" or "Cautionary Statement Concerning Forward-Looking Statements" sections of such Form 10, (ii) results of any research, surveys, studies or trials conducted or (iii) approvals, denials or other responses to INDs or other applications by or on behalf of the Company from Governmental Entities or other third parties or (z) without limiting the Investors' rights with respect to the condition precedent in Section 5.1(e), relating to changes

occurring in the ordinary course of business or otherwise as are reasonably anticipated in connection with the Separation, Distribution or the transactions contemplated thereby (including, for example purposes only, disclosures as to new contracts or new patent applications entered into or applied for in the ordinary course of business, the removal of references to expired contracts or denied patent applications in the ordinary course of business, or the inclusion of references to a IRS private letter ruling or other correspondence received after the date of the Original Agreement)), this Section 5.1(f) shall not be deemed satisfied unless the Investor Consent was obtained with respect to such amendment(s); provided, further, however, that the Investors shall not unreasonably withhold such consent. "***Investor Consent***" means, with respect to any amendment or other action requiring consent hereunder, either (a) the written consent by the Required Investors to such amendment or action, or (b) the failure of at least the Required Investors to respond in writing affirmatively denying such consent within three Business Days of receipt of the Company's written request for such consent.

(g) Distribution. Ironwood and the Company shall have completed the Distribution substantially on the terms described in the Separation Agreement as incorporated into the Effective Form 10 (the "***Effective Separation Agreement***"); provided, however, that in the event the Effective Separation Agreement contains any change or changes from the draft Separation Agreement made available in the Company's electronic data room as of the date of the Original Agreement, and such change or changes, individually or in the aggregate, affect the business, assets and/or liabilities of the Company (taken as a whole) and such changes from such draft Separation Agreement require amendments to the draft Form 10 in order to ensure that the Effective Form 10 does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading (other than with respect to any amendment(s): (w) to the provisions referred to in Schedule 5.1 hereto, (x) to which the Investor Consent was obtained for purposes of clause (f) above, (y) relating to any (i) change in forecasts, estimates, expectations, timetables or similar forward looking considerations, (ii) results of any research, surveys, studies or trials conducted or (iii) approvals, denials or other responses to INDs or other applications by or on behalf of the Company from Governmental Entities or other third parties, or (z) without limiting the Investors' rights with respect to the condition precedent in Section 5.1(e), relating to changes occurring in the ordinary course of business or otherwise as are reasonably anticipated in connection with the Separation, Distribution or the transactions contemplated thereby (including, for example purposes only, new contracts or new patent applications added to Separation Agreement schedules entered into or applied for in the ordinary course of business, the removal of references to expired contracts or denied patent applications in the ordinary course of business, or the inclusion of references to a IRS private letter ruling or other correspondence received after the date of the Original Agreement)), this Section 5.1(g) shall not be deemed satisfied unless the Investor Consent was obtained with respect to such amendment(s); provided, further, however, that the Investors shall not unreasonably withhold such consent.

(h) KPMG Opinion. The Company shall have received an opinion from KPMG that the Separation and Distribution will qualify for the Intended Tax Treatment, a copy of which shall have been delivered to the Investors.

(i) Minimum Sale of Shares. The sale of Shares at the Closing (for the avoidance of doubt, excluding any sale of Shares to Ironwood or its subsidiaries) shall result in aggregate proceeds to the Company (taking into account the effect of Section 1.3) of an amount equal to at least (x) $150 million minus (y) the aggregate amount of any reduction to the Investor Commitment Amounts of the Capped Investors under Section 1.4.

(j) Compliance Certificate. The Company shall have delivered to the Investors a Compliance Certificate, executed by the Chief Executive Officer of the Company, dated as of the Closing Date to the effect that the conditions specified in subsections (a) and (b) of this Section 5.1 have been satisfied.

5.2. Conditions of the Company's Obligations. The obligations of the Company under Section 1 hereof with respect to each Investor (on a several, and not joint, Investor-by-Investor basis) are subject to the fulfillment prior to or on the Closing Date of all of the following conditions with respect to such Investor, any of which may be waived in whole or in part by the Company.

(a) Covenants; Representations and Warranties. (i) The Investors shall have performed in all material respects all covenants and agreements contained in this Agreement required to be performed by the Investors on or prior to the Closing, (ii) the representations and warranties of the Investors contained in Section 3.7 and Section 3.14 shall be true and correct as of immediately prior to the Closing as though such representations and warranties were made, as written herein, as of immediately prior to the Closing (subject to the specified time periods, as applicable, qualifying such representations and warranties), except where the failure of such representations and warranties to be so true and correct could not, individually or in the aggregate, reasonably be expected to affect the Intended Tax Treatment, and (iii) the representations and warranties of the Investors contained in Section 3 and the representations and warranties of the Capped Investors contained in Section 1.4 of this Agreement shall be true and correct as of immediately prior to the Closing as though such representations and warranties were made, as written herein, as of immediately prior to the Closing (subject to the specified time periods, as applicable, qualifying such representations and warranties), except where the failure of such representations and warranties to be so true and correct does not constitute, individually or in the aggregate, material adverse effect on such Investor's ability to perform its obligation under the Transaction Documents.

(b) Form 10 Effectiveness. The Form 10 shall have been declared effective by the Commission.

(c) Distribution. Ironwood and the Company shall have completed the Distribution substantially on the terms described in the Separation Agreement.

5.3. Conditions of Each Party's Obligations. The respective obligations of each party to consummate the transactions at the Closing contemplated hereunder are subject to the absence of any statute, rule, regulation, injunction, order or decree, enacted, enforced, promulgated, entered, issued or deemed applicable to this Agreement or the transactions contemplated hereby by any court, government or governmental authority or agency or legislative body, domestic, foreign or supranational, in each case of the foregoing authorities, agencies or bodies, of competent jurisdiction, prohibiting or enjoining the transactions contemplated by this Agreement.

6. Covenants.

6.1. Separation and Distribution. The Company shall use commercially reasonable efforts to consummate the Separation and Distribution as soon as practicable following the date of the Original Agreement. The Company shall consult with the Required Investors' as to proposed material changes to the Form 10 and the Separation Agreement from the drafts of such documents attached hereto; provided, that such consultation shall not imply any requirement on the Company to incorporate any comments from the Required Investors as to any such changes (without limiting the conditions in Sections 5.1(f) and 5.1(g)).

6.2. Furnishing of Information. In order to enable the Investors to sell the Shares under Rule 144, for a period of twelve (12) months from the consummation of the Closing, the Company shall use its commercially reasonable efforts to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the consummation of the Closing pursuant to the Exchange Act.

6.3. Integration. The Company shall use its commercially reasonable efforts such that neither it nor any of its Affiliates shall sell, offer for sale or solicit offers to buy any security that will be integrated with the offer or sale of the Shares hereunder that would require the registration under the Securities Act of the sale of Shares hereunder to the Investors.

6.4. Delivery of Shares After Closing. The Company shall deliver or cause to be delivered to each Investor evidence of the book-entry issuance of the Shares purchased by such Investor within three (3) Trading Days of the Closing Date.

6.5. Form D; Blue Sky. The Company agrees to timely file a Form D with respect to the Shares as required under Regulation D and to provide a copy thereof, promptly upon the written request of any Investor. The Company, on or before the Closing Date, shall take such action as the Company shall reasonably determine is necessary (if any) in order to obtain an exemption for or to qualify the Shares solely with respect to the sale contemplated by this Agreement to the Investors (and without any obligation on the Company as to any resales) under applicable securities or "Blue Sky" laws of the states of the United States (or to obtain an exemption from such qualification) and shall provide evidence of such actions promptly upon the written request of any Investor.

7. Transfer Restrictions; Restrictive Legend.

7.1. Transfer Restrictions. Each Investor understands that the Company (or its transfer agent) may, as a condition to the transfer of the Shares, require that the request for transfer be accompanied by an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed transfer does not result in a violation of the Securities Act or by Rule 144 under the Securities Act, unless such transfer is covered by an effective registration statement. It is understood that the certificates evidencing the Shares may bear substantially the following legend:

"THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER SUCH ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED OR UNLESS SOLD PURSUANT TO RULE 144 OF SUCH ACT."

The Company acknowledges and agrees that an Investor may from time to time pledge, and/or grant a security interest in, some or all of the legended Shares in compliance with applicable securities laws, pursuant to a bona fide margin agreement in compliance with a bona fide margin loan with a nationally recognized NYSE-member prime broker. Such a pledge would not be subject to approval or consent of the Company and no legal opinion of legal counsel to the pledgee, secured party or pledgor shall be required in connection with the pledge. No notice shall be required of such pledge, but Investor must notify the Company as promptly as practicable prior to any such subsequent transfer or foreclosure. Each Investor acknowledges that the Company shall not be responsible for any pledges relating to, or the grant of any security interest in, any of the Shares or for any agreement, understanding or arrangement between any Investor and its pledgee or secured party. The Company will use commercially reasonable efforts (and in any event, at the appropriate Investor's expense) to execute and deliver such reasonable documentation as a pledgee or secured party of Shares may reasonably request in connection with a pledge or transfer of the Shares, including the preparation and filing of any required prospectus supplement under Rule 424(b)(3) of the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders thereunder Each Investor acknowledges and agrees that, except as otherwise provided in Section 7.2, any Shares subject to a pledge or security interest as contemplated by this Section 7.1 shall continue to bear the legend set forth in this Section 7.1 and be subject to the restrictions on transfer set forth in this Section 7.1.

7.2. Unlegended Certificates. Subject to the receipt of standard written documentation provided by the holder pursuant to Rule 144 and a representation that the holder is not an Affiliate of the Company, the Company shall be obligated to promptly reissue unlegended certificates upon the request of any holder thereof (x) at such time as the holding period under Rule 144 or another applicable exemption from the registration requirements of the Securities Act for a transfer of such Shares to the public has been satisfied or (y) at such time as a registration statement is available for the transfer of such Shares.

8. Registration Rights.

8.1. Registration Statements.

(a) Filing of Registration Statement. As soon as reasonably practicable following the Closing Date, but no later than five (5) Business Days after the filing of the Company's Annual Report on Form 10-K for the year ended December 31, 2018 or, if the Company is not required to file an Annual Report on Form 10-K for the year ended December 31, 2018, within five (5) Business Days after the Closing Date, the Company shall prepare and confidentially submit to the Commission one draft Registration Statement on Form S-1, covering the resale of all of the Registrable Securities, and shall use commercially reasonable efforts to cause such Registration Statement to be declared effective as promptly as reasonably practicable thereafter. The Company shall not register additional shares of Common Stock (other than a registration on Form S-8 or any successor form) until such Registration Statement is declared effective or, if earlier, until the Registrable Securities no longer constitute Registrable Securities. Such Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) shall be provided in accordance with Section 8.2(c) to the Investors and their counsel prior to its filing or other submission. Without the consent of the Required Investors, the Company shall not provide piggyback registration rights on such Registration Statement until the earlier of (i) the date on which at least 90% of the Registrable Securities covered by such Registration Statement, as amended from time to time, no longer constitute Registrable Securities, or (ii) one (1) year from the date of the Original Agreement.

(b) Expenses. The Company shall pay all Company expenses associated with effecting the registration of the Registrable Securities, including filing and printing fees, the Company's counsel (but excluding any fees of any counsel to the Investors) and accounting fees and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees, but excluding discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold.

(c) Effectiveness.

(1) The Company shall use commercially reasonable efforts to have the Registration Statement filed pursuant to Section 8.1(a) declared effective as soon as practicable after the initial confidential submission. The Company shall respond promptly to any and all comments made by the staff of the Commission on such Registration Statement, and shall submit to the Commission, with five (5) Business Days after the Company learns that no review of such Registration Statement will be made by the staff of the Commission or that the staff of the Commission has no further comments on such Registration Statement, as the case may be, a request for acceleration of the effectiveness of such Registration Statement to a time and date not later than three (3) Business Days after the submission of such request. The Company shall notify the Investors by e-mail as promptly as reasonably practicable, and in any event, within twenty-four (24)

hours, after such Registration Statement is declared effective and shall simultaneously provide or make available to the Investors copies of any related Prospectus to be used in connection with the sale or other disposition of the securities covered thereby.

(2) The Company may suspend the use of any Prospectus included in any Registration Statement contemplated by this Section in the event that the Company determines in good faith that such suspension is necessary to (A) delay the disclosure of material non-public information concerning the Company, the disclosure of which at the time is not, in the good faith opinion of the Company, in the best interests of the Company; provided, that such delays in accordance with this clause (A) shall not exceed more than seventy-five (75) days (which need not be consecutive days) in the aggregate in any twelve (12) month period, or (B) amend or supplement the affected Registration Statement or the related Prospectus so that such Registration Statement or Prospectus will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the case of the Prospectus, in light of the circumstances under which they were made, not misleading (an "***Allowed Delay***"); provided, that the Company shall promptly (a) notify each Investor in writing of the commencement of an Allowed Delay, but shall not (without the prior written consent of an Investor) disclose to such Investor any material non-public information giving rise to an Allowed Delay, (b) advise the Investors in writing to cease all sales under the Registration Statement until the end of the Allowed Delay and (c) use commercially reasonable efforts to terminate an Allowed Delay as promptly as practicable. In the event of the Company's breach of its obligations with respect to clause (A) of this Section 8.1(c)(2), each Investor shall be entitled to a payment (with respect to the Registrable Securities of each such Investor), as compensation and not as a penalty, of 0.25% of the Liquidated Damages Multiplier per 60-day period, which shall accrue daily, for the first 60 days following the 75th day, increasing by an additional 0.25% of the Liquidated Damages Multiplier per 60-day period, which shall accrue daily, for each subsequent 60 days (i.e., 0.5% for 61-120 days, 0.75% for 121-180 days and 1.0% thereafter), up to a maximum of 1.00% of the Liquidated Damages Multiplier per 60-day period (the "***Liquidated Damages***"). The Liquidated Damages payable pursuant to the immediately preceding sentence shall be payable within twenty Business Days after the end of each such 60-day period. Any Liquidated Damages shall be paid to each Investor in immediately available funds. The accrual of Liquidated Damages to an Investor shall cease at the earlier of (i) the cessation of such suspension, (ii) when such Investor no longer holds Registrable Securities, or (iii) the expiration of any obligation to maintain such Registration Statement or Prospectus pursuant hereto, and any payment of Liquidated Damages shall be prorated for any period of less than 60 days in which the payment of Liquidated Damages ceases. The Company may request a waiver of the Liquidated Damages, which may be granted by the Required Investors on behalf of all of the Investors, and notwithstanding the failure to obtain such waiver, each Investor may individually grant or withhold its

consent to such request in its discretion. "***Liquidated Damages Multiplier***" means the product of the Purchase Price times the number of Registrable Securities purchased by such Investor that may not be disposed of without restriction and without the need for current public information pursuant to any section of Rule 144 (or any similar provision then in effect) under the Securities Act. The Investors acknowledge and agree that the Investor's actual harm caused by a breach of the Company's obligations with respect to clause (A) of this Section 8.1(c)(2) would be impossible or very difficult to accurately estimate or prove, and that the Liquidated Damages are a reasonable estimate of the anticipated or actual harm that might arise from such breach. The Company's payment of the Liquidated Damages is the Company's sole liability and entire obligation, and the Investor's exclusive remedy, for any such breach.

8.2. Company Obligations. The Company shall use commercially reasonable efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company shall:

(a) use commercially reasonable efforts to cause such Registration Statement, or a successor Registration Statement, including on Form S-3 if the Company becomes eligible to use such form, to become effective and to remain continuously effective (other than during an Allowed Delay) for a period (the "***Effectiveness Period***") that will terminate upon the earlier of (i) the date on which all Registrable Securities covered by such Registration Statement, as amended from time to time, no longer constitute Registrable Securities, and (ii) one (1) year from the Closing Date;

(b) use commercially reasonable efforts to prepare and file with the Commission such amendments and post-effective amendments to the Registration Statement and the Prospectus as may be necessary to keep the Registration Statement effective for the Effectiveness Period and to comply with the provisions of the Securities Act and the Exchange Act with respect to the distribution of all of the Registrable Securities covered thereby;

(c) (i) provide copies to and permit counsel designated by the Investors to review and provide comments on each Registration Statement no fewer than two (2) Business Days prior to their filing with the Commission and all amendments and supplements thereto no fewer than one (1) Business Day prior to their filing with the Commission, and (ii) consider comments from the Required Investors for incorporation in such Registration Statements or amendments and supplements thereto in good faith;

(d) furnish or otherwise make available (including via EDGAR) to the Investors (i) promptly after the same is prepared and publicly distributed, filed with the Commission, or received by the Company (but not later than two (2) Business Days after the filing date, receipt date or sending date, as the case may be) one (1) copy of any Registration Statement and any amendment thereto, each preliminary prospectus and Prospectus and each amendment or supplement thereto, and each letter written by or on behalf of the Company to the Commission or the staff of the Commission, and each item

of correspondence from the Commission or the staff of the Commission, in each case relating to such Registration Statement (other than any portion of any thereof which contains information for which the Company has sought or plans to seek confidential treatment), and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Investor may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Investor that are covered by the related Registration Statement;

(e) use commercially reasonable efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness, and (ii) if such order is issued, obtain the withdrawal of any such order and to notify the Investors of the issuance of such order and the resolution thereof, if applicable;

(f) use commercially reasonable efforts to register or qualify (unless an exemption from the registration or qualification exists) or cooperate with the Investors and their counsel in connection with the registration or qualification of such Registrable Securities for offer and sale under the securities or blue sky laws of such domestic jurisdictions as are reasonably requested by the Investors and do any and all other commercially reasonable acts or things necessary or advisable to enable the distribution in such jurisdictions of the Registrable Securities covered by the Registration Statement**;** provided, however, that the Company will not be required in connection therewith or as a condition thereto to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify, but for this Section 8.2(f), (ii) subject itself to general taxation in any jurisdiction where it would not otherwise be so subject, but for this Section 8.2(f), or (iii) file a general consent to service of process in any such jurisdiction;

(g) use commercially reasonable efforts to cause all Registrable Securities covered by a Registration Statement to be listed on the securities exchange, interdealer quotation system or other market on which the Common Stock is then listed;

(h) promptly notify the Investors, at any time prior to the end of the Effectiveness Period, upon discovery that, or upon the happening of any event as a result of which, the Prospectus includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, and, subject to Section 8.1(c)(2) hereof, promptly prepare, file with the Commission and furnish to such holder a supplement to or an amendment of such Prospectus as may be necessary so that such Prospectus will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing;

(i) otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the Commission under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final Prospectus, including any supplement or amendment thereof, with the Commission

pursuant to Rule 424 under the Securities Act, promptly inform the Investors in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Investors are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder; and

(j) with a view to making available to the Investors the benefits of Rule 144 (or its successor rule) and any other rule or regulation of the Commission that may at any time permit the Investors to sell shares of Common Stock to the public without registration, the Company covenants and agrees to use commercially reasonable efforts to: (i) make and keep public information available, as those terms are understood and defined in Rule 144, for a period of twelve (12) months from the consummation of the Closing; (ii) file with the Commission in a timely manner all reports required of the Company under the Exchange Act; and (iii) furnish to each Investor upon request (including via EDGAR), as long as such Investor owns any Registrable Securities, (A) a written statement by the Company whether it has complied with the reporting requirements of the Exchange Act, (B) a copy (or a link to a website containing the same) of the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, and (C) such other information as may be reasonably requested in order to avail such Investor of any rule or regulation of the Commission that permits the selling of any such Registrable Securities without registration under Rule 144.

8.3. Obligations of the Investors.

(a) Each Investor shall furnish in writing to the Company such information regarding itself, the Registrable Securities and other Company securities held by he, she or it and the intended method of disposition of the Registrable Securities held by he, she or it, as the Company may reasonably request (and in any event within two (2) Business Days of the Company's request), to respond to requests by the Commission, FINRA or any state securities commission or as may be required to be disclosed by applicable securities laws and shall execute such documents in connection with such registration as the Company may reasonably request. At least two (2) Business Days prior to the first anticipated filing date of any Registration Statement, the Company shall notify each Investor of the information the Company requires from such Investor if such Investor elects to have any of the Registrable Securities included in the Registration Statement.

(b) Each Investor agrees that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay pursuant to Section 8.1(c)(2), or (ii) the happening of an event pursuant to Section 8.2(h) hereof, such Investor shall use his, her or its commercially reasonable efforts to promptly discontinue disposition of Registrable Securities pursuant to the Registration Statement covering such Registrable Securities, until the Investor is advised by the Company that such dispositions may again be made. The Company may provide appropriate stop orders to enforce the provisions of this paragraph.

8.4. Indemnification.

(a) Indemnification by the Company. In consideration of each Investor's execution and delivery of this Agreement and in addition to all of the Company's other obligations under the Transaction Documents to which he, she or it is a party, subject to the provisions of this Section 8.4, the Company shall indemnify and hold harmless each Investor, each of its (as applicable) directors, officers, shareholders, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title) and each Person, if any, who controls the Investor (within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act) (each, an "***Investor Party***"), from and against all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses (including all judgments, amounts paid in settlement, court costs, reasonable attorneys' fees and costs of defense and investigation) (collectively, "***Damages***") that any Investor Party may suffer or incur as a result of or relating to any action, suit, claim or proceeding (including for these purposes a derivative action brought on behalf of the Company) instituted against such Investor Party arising out of or resulting from (i) any untrue or alleged untrue statement of a material fact contained in any Registration Statement under which such Registrable Securities are registered or sold under the Securities Act (including any final, preliminary or summary Prospectus contained therein or any amendment thereof or supplement thereto or any documents incorporated by reference therein) or any other disclosure document produced by or on behalf of the Company including any report and other document filed under the Exchange Act or (ii) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus or preliminary Prospectus, in light of the circumstances under which they were made) not misleading; provided, however, that the foregoing indemnity will not apply to any Damages to the extent, but only to the extent, that such Damages arise out of or result from any untrue statement or omission contained in any information relating to such Investor furnished in writing by an Investor Party (other than another Investor) to the Company expressly for inclusion in a Registration Statement.

(b) Indemnification by the Investors. In consideration of each Investor's execution and delivery of this Agreement and in addition to all of the Investor's other obligations under the Transaction Documents to which he, she or it is a party, subject to the provisions of this Section 8.4, each Investor shall indemnify and hold harmless the Company, each of its directors, officers, shareholders, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title), each Person, if any, who controls the Company (within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act) (each, a "***Company Party***"), from and against all Damages that any Company Party may suffer or incur as a result of or relating to any action, suit, claim or proceeding (including for these purposes a derivative action brought on behalf of the Company) instituted against such Company Party to the extent arising out of or resulting from (i) any untrue statement of a material fact in any Registration Statement under which such Registrable Securities were registered or sold under the Securities Act

(including any final, preliminary or summary Prospectus contained therein or any amendment thereof or supplement thereto or any documents incorporated by reference therein) or (ii) any omission to state therein a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus or preliminary Prospectus, in light of the circumstances under which they were made) not misleading, in each case to the extent that such untrue statement or omission is contained in any information relating to such Investor furnished in writing by an Investor Party (other than another Investor) to the Company expressly for inclusion in a Registration Statement.

(c) Promptly after receipt by an indemnified party under this Section 8.4 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party shall, if a claim in respect thereof is to be made against any indemnifying party under this Section 8.4, give the indemnifying party notice of the commencement thereof. The indemnifying party will have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) will have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall not relieve such indemnifying party of any liability to the indemnified party under this Section 8.4, unless and to the extent such failure prejudices the indemnifying party's ability to defend such action. If the indemnifying party assumes the defense of a claim pursuant to this Section 8.4(c), (x) the indemnifying party shall not be subject to any liability for any settlement made without his, her or its prior written consent, and (y) the indemnifying party shall not settle such claim unless the settlement includes an unconditional release of the indemnified party from all liability with respect to all claims that are the subject of the proceeding. If such defense is not assumed by the indemnifying party, the indemnifying party will not be subject to any liability for any settlement made without his, her or its prior written consent, but such consent may not be unreasonably withheld.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 8.4 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 8.4 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 8.4, then, and in each such case, such parties shall contribute to the aggregate losses, claims, damages, liabilities, or expenses to

which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party will be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Investor will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Investor pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. The parties agree that it would not be equitable to allocate any such liabilities pro rata or by any method of allocation other than as provided in this clause (d).

(e) The obligations of the Company and each Investor under this Section 8.4 will survive the completion of any offering or sale of Registrable Securities pursuant to a Registration Statement under this Agreement or otherwise.

9. Definitions. Unless the context otherwise requires, the terms defined in this Section 9 shall have the meanings specified for all purposes of this Agreement.

Except as otherwise expressly provided, all accounting terms used in this Agreement, whether or not defined in this Section 9, shall be construed in accordance with GAAP.

"***10% Shareholder***" means, as of any time of determination, a Person who owns or has acquired ten percent (10%) or more of any class of outstanding stock of Ironwood or of the Company, including, for the avoidance of doubt, the Shares.

"***Action***" has the meaning assigned to it in Section 4.14 hereof.

"***Additional Investor***" has the meaning assigned to it in Section 1.2 hereof.

"***Affiliate***" shall have the meaning ascribed to such term in Rule 12b-2 promulgated under the Exchange Act.

"***Agreement***" has the meaning assigned to it in the introductory paragraph hereof.

"***Allowed Delay***" has the meaning assigned to it in Section 8.1(c)(2) hereof.

"***Articles of Organization***" means the Company's Amended and Restated Articles of Organization in the form attached as an exhibit to the Form 10.

"***Board***" has the meaning assigned to it in Section 4.6(b) hereof.

"***Business Day***" means any day that is not a Saturday, a Sunday or other day on which banks are required or authorized by law to be closed in the City of New York.

"***Bylaws***" means the Company's Amended and Restated Bylaws in the form attached as an exhibit to the Form 10.

"***Closing***" has the meaning assigned to it in Section 2.1 hereof.

"***Closing Date***" has the meaning assigned to it in Section 2.1 hereof.

"***Code***" means the Internal Revenue Code of 1986, as amended.

"***Commission***" means the Securities and Exchange Commission.

"***Common Stock***" has the meaning assigned to it in the recitals hereof.

"***Company***" has the meaning assigned to it in the introductory paragraph hereof.

"***Company Party***" has the meaning assigned to it in Section 8.4(b) hereof.

"***Confidentiality Agreement***" means, with respect to any Investor, the confidentiality agreement (if any) referred to opposite such Investor's name on Schedule I in the column entitled "Other Information".

"***control***," "***controlled***," "***controlled by***" and "***under common control with***" means the possession, directly or indirectly or as trustee or executor, of the power to direct or cause the direction of the management policies of a Person, whether through the ownership of a majority of such Person's outstanding voting equity or by contract, and with respect to "controlled Affiliates" includes Affiliates controlled by such Person.

"***Cushion Shares***" shall mean the number of shares of Company stock, if any, reasonably determined by Ironwood and the Company, after consultation with their tax advisors, to be necessary in order to preserve, and to avoid creating risk to, the Intended Tax Treatment.

"***Damages***" has the meaning assigned to it in Section 8.4(a) hereof.

"***Distribution***" has the meaning given to such term in the Separation Agreement.

"***Effective Form 10***" has the meaning assigned to it in Section 5.1(f) hereof.

"***Effectiveness Period***" has the meaning assigned to it in Section 8.2(a) hereof.

"***Effective Separation Agreement***" has the meaning assigned to it in Section 5.1(g) hereof.

"***Employee Benefit Plan***" has the meaning assigned to it in Section 4.16(a) hereof.

"***Encumbrances***" means any lien, claim, judgment, charge, mortgage, security interest, pledge, escrow, equity or other encumbrance.

"***Environmental Laws***" has the meaning assigned to it in Section 4.19 hereof.

"***ERISA***" means the Employee Retirement Income Security Act of 1974, as amended.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

"***FCPA***" has the meaning assigned to it in Section 4.24 hereof.

"***FDA***" has the meaning assigned to it in Section 4.27 hereof.

"***FINRA***" means the Financial Industry Regulatory Authority, Inc.

"***Form 10***" means that certain Registration Statement on Form 10, confidentially submitted by the Company with the Commission in connection with the Distribution and in substantially the form made available in the Company's electronic data room as of the date hereof, as may be amended from time to time after the date hereof.

"***Fund***" has the meaning assigned to it in Section 3.14(c)(ii) hereof.

"***GAAP***" means U.S. generally accepted accounting principles consistently applied.

"***Good Clinical Practices***" means the international ethical and scientific quality standards for designing, conducting, recording, and reporting trials that involve the participation of human subjects. In the United States, Good Clinical Practices are established through FDA guidance (including ICH E6).

"***Good Laboratory Practices***" means the current Good Laboratory Practice (or similar standards) for the performance of laboratory activities for pharmaceutical products as are required by applicable Regulatory Authorities. In the United States, Good Laboratory Practices are established through FDA regulations (including 21 CFR Part 58), FDA guidance, FDA current review and inspection standards and current industry standards.

"***Governmental Entity***" means any national, federal, state, municipal, local, territorial, foreign or other government or any department, commission, board, bureau, agency, regulatory authority or instrumentality thereof, or any court, judicial, administrative or arbitral body or public or private tribunal.

"***IND***" has the meaning assigned to it in Section 4.27 hereof.

"***Intellectual Property***" means all inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets, know-how and other intellectual property that is used in connection with, and is material to, the business of the Company.

"***Intended Tax Treatment***" has the meaning assigned to it in the recitals hereto.

"***Investment Policies***," has the meaning assigned to it in Section 3.14(a) hereof.

"***Investment Trades***" has the meaning assigned to it in Section 3.14(a) hereof.

"***Investor Commission Affiliate***" means (a) any fund that, with respect to such Investor, is (i) under common management and investment control, (ii) under common management and funded primarily by the same employer (or by a group of related employers that are under common control) or (iii) part of the same group of "investment companies," as such term is defined in Section 12(d)(1)(G)(ii) of the Investment Company Act of 1940, as amended, or (b) any other Person whose ownership of securities is aggregated with that of such Investor for purposes of any filings with the Commission.

"***Investor Commitment Amount***" has the meaning assigned to it in Section 1.1 hereof.

"***Investor Consent***" has the meaning assigned to it in Section 5.1(f) hereof.

"***Investor Party***" has the meaning assigned to it in Section 8.4(a) hereof.

"***Investors***" has the meaning assigned to it in the introductory paragraph of this Agreement and shall include any Affiliates of the Investors and any transferees of Investors who are obligated to execute and deliver this Agreement in connection with such transfer.

"***Investor Tax Affiliate***" means, with respect to an Investor, any entity or individual whose ownership of stock would be attributable to or aggregated with such Investor under Section 355(e)(4)(C) of the Code.

"***Joinder***" has the meaning assigned to it in Section 1.2 hereof.

"***knowledge***" or any similar phrase means (a) with respect to the Company, the actual knowledge of the principal executive officer, principal financial officer and chief scientific officer of the Company and (b) with respect to each Investor, the actual knowledge of the persons included in the "Knowledge Group" listed opposite such Investor's name on Schedule I in the column entitled "Other Information".

"***Laws***" has the meaning assigned to it in Section 4.17 hereof.

"***Liens***" has the meaning assigned to it in Section 4.22 hereof.

"***Liquidated Damages***" has the meaning assigned to it in Section 8.1(c)(2) hereof.

"***Liquidated Damages Multiplier***" has the meaning assigned to it in Section 8.1(c)(2) hereof.

"***Material Adverse Effect***" means (a) any material adverse effect on the ability of the Company to consummate the issuance of Shares contemplated by this Agreement or (b) any material adverse effect on the financial condition, business or results of operations of the Company; provided that none of the following will constitute a Material Adverse Effect: any event, effect, circumstance, change, occurrence, fact or development resulting from or relating to (i) general business, industry or economic conditions, (ii) local, regional, national or international political or social conditions, including the engagement (whether new or continuing) by the United States in hostilities, whether or not pursuant to the declaration of a national emergency or war, or the occurrence of any military or terrorist attack upon the United States or any of its territories, possessions or diplomatic or consular offices or upon any military installation, equipment or personnel of the United States, any natural or man-made disaster or acts of God, acts of terrorism or sabotage, (iii) changes in financial, banking or securities markets (including any disruption thereof and any decline in the price of any security or any market index), (iv) changes in GAAP or regulatory accounting requirements or interpretations thereof that apply to the Company (including the proposal or adoption of any new law, statute, code, ordinance, rule or regulation, or any change in the interpretation or enforcement of any existing law, statute, code, ordinance, rule or regulation), (v) changes in Laws, (vi) the negotiation, execution, or delivery of this Agreement or any of the other Transaction Documents or the Separation Agreement or the filing of the Form 10, or the announcement, pendency or consummation of any of the transactions contemplated hereby or thereby, including the impact thereof on relationships with third parties (such as (A) any loss of existing employees, consultants or independent contractors, (B) any loss of, or reduction in business by or revenue from, existing customers, or (C) any disruption in or loss of vendors, suppliers, distributors, partners, contractors or similar third parties), (vii) the taking of, or the failure to take, any action expressly required by this Agreement or any of the other Transaction Documents or consented to, in writing by the Required Investors, (viii) any costs or expenses incurred or accrued by the Company in connection with this Agreement or the transactions contemplated hereby, or (ix) any failure by the Company (in the aggregate or otherwise) to meet estimates, expectations, projections or forecasts or revenue or earnings predictions for any period (provided that the exception set forth in this clause (x) shall not prevent or otherwise affect any determination that the underlying reasons for any such failure constitutes or contributed to a Material Adverse Effect), except to the extent that such event, effect, circumstance, change, occurrence, fact or development arising from or related to the matters in clauses (i), (ii), (iv) and (v) disproportionately affects the Company as compared to other businesses operating in the industries or markets in which the Company operates.

"***Material Contract***" means all written and oral contracts, agreements, deeds, mortgages, leases, subleases, licenses, instruments, notes, commitments, commissions, undertakings, arrangements and understandings which are required to be filed as exhibits by the Company with the Commission pursuant to Items 601(b)(4) and 601(b)(10) of Regulation S-K promulgated by the Commission.

"***Maximum Company Liability***" means an amount equal to the Purchase Price multiplied by the number of Shares sold to the Investors pursuant to this Agreement.

"***Money Laundering Laws***" has the meaning assigned to it in Section 4.25 hereof.

"***OFAC***" has the meaning assigned to it in Section 3.17 hereof.

"***Option***" shall mean options to purchase or otherwise acquire Common Stock granted under the Company's equity compensation plans.

"***Options Deemed Outstanding***" means the aggregate number of shares of Common Stock issuable pursuant to the exercise of Options then outstanding (assuming for this purpose that all such Options are fully vested, and excluding for this purposes RSUs (as defined in the Form 10)) multiplied by the Treasury Stock Ratio.

"***Original Agreement***" has the meaning assigned to it in the recitals hereto.

"***Ownership Cap***" means a number of shares of Common Stock equal to 46% of the total shares of Common Stock then outstanding (after giving effect to the issuance of the Shares at Closing).

"***PCAOB***" has the meaning assigned to it in Section 4.31 hereof.

"***Person***" means and includes all natural persons, corporations, business trusts, associations, companies, partnerships, joint ventures, limited liability companies and other entities and governments and agencies and political subdivisions.

"***Pre-Money Valuation***" means $250,000,000.

"***Prospectus***" means (i) the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus, and (ii) any "free writing prospectus" as defined in Rule 405 under the Securities Act.

"***Purchase Price***" has the meaning assigned to it in Section 1 hereof.

"***Register***," "***registered***" and "***registration***" refer to a registration made by preparing and filing a Registration Statement or similar document in compliance with the Securities Act, and the declaration or ordering of effectiveness of such Registration Statement or document.

"***Registrable Securities***" means, collectively, the Shares and any other securities issued or issuable with respect to or in exchange for the Shares, whether by merger, charter amendment or otherwise; provided that a security shall cease to be a Registrable Security upon (A) a sale pursuant to a Registration Statement or Rule 144 under the Securities Act (in which case, only such security sold by the Investor shall cease to be a Registrable Security); or (B) becoming eligible for sale without volume restrictions by the applicable Investor pursuant to Rule 144 (but only if such shares are permitted to be unlegended under Section 7.2).

"***Registration Statement***" means any registration statement of the Company filed under the Securities Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statement, including post-effective amendments, all exhibits and all material incorporated by reference in such Registration Statement.

"***Regulatory Authorities***" has the meaning assigned to it in Section 4.27 hereof.

"***Regulatory Permits***" has the meaning assigned to it in Section 4.27 hereof.

"***Required Investors***" means, prior to the Closing, Investors entitled to acquire at least a majority of the Shares to be issued hereunder based on the total Investor Commitment Amounts at such time, and following the Closing, Investors holding at least a majority of the Shares then beneficially owned by all Investors.

"***Requisite Notice***" has the meaning assigned to it in Section 11 hereof.

"***Securities Act***" or "***Act***" means the Securities Act of 1933, as amended.

"***Separation***" has the meaning assigned to such term in the recitals hereto.

"***Separation Agreement***" has the meaning assigned to such term in the recitals hereto.

"***Shares***" has the meaning assigned to such term in the recitals hereto.

"***Shares Deemed Outstanding***" means a number equal to the sum of: (i) all shares of Common Stock of the Company then outstanding, (ii) all RSUs (as defined in the Form 10) then outstanding, and (iii) all Options Deemed Outstanding, in each case after giving effect to the Distribution but excluding the Shares to be issued pursuant to this Agreement.

"***Specified Investor***" means the Investor or Investors identified on Schedule II.

"***Studies***" has the meaning assigned to such term in Section 4.28 hereof.

"***Subsidiary***" means any corporation, association trust, limited liability company, partnership, joint venture or other business association or entity (i) at least 50% of the outstanding voting securities of which are at the time owned or controlled directly or indirectly by the Company or (ii) with respect to which the Company possesses, directly or indirectly, the power to direct or cause the direction of the affairs or management of such Person.

"***Testing Shares***" means the aggregate number of Shares issued to the Investors at the Closing pursuant to this Agreement (after taking into account the effect of Section 1.4, if applicable) plus any Cushion Shares.

"***Trading Market***" means the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, or the Nasdaq Global Select Market.

"***Transaction Documents***" means this Agreement, the Joinders and any other agreement between the Company and an Investor that expressly identifies itself as a Transaction Document.

"***Treasury Stock Ratio***" means the number determined by subtracting (a) the number (rounded to the nearest 1/10000) determined by dividing (i) the aggregate value of the exercise price of all Options then outstanding with an exercise price less than the Purchase Price by (ii) the aggregate value of all shares of Common Stock (such value to be determined for this purpose by multiplying the number of such shares of Common Stock by the Purchase Price) issuable upon exercise of all such Options (assuming for this purpose that all such Options are fully vested), from (b) 1.0000; provided, however, that the Treasury Stock Ratio shall not be less than zero.

10. Survival. The representations, warranties, covenants, indemnities and agreements contained in this Agreement and in the other Transaction Documents shall survive the Closing of the transactions contemplated by this Agreement, subject as applicable to the last sentence of Section 11.

11. Indemnification of Investors. Subject to the provisions of this Section 11, from and after the consummation of the Closing, the Company will indemnify and hold each Investor Party harmless from any and all actual out-of-pocket costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation (subject to the other provisions of this Section 11) that any such Investor Party may suffer or incur as a result of or relating to (a) any action instituted against an Investor or Investor Party in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Investor or Investor Party, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a breach of such Investor's representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Investor may have with any such

stockholder or any violations by the Investor of state or federal securities laws or any conduct by such Investor which constitutes fraud, gross negligence, willful misconduct or malfeasance) or (b) the Separation Agreement, the Separation and/or the Distribution. Promptly after receipt by any Investor Party (the "***Indemnified Person***") of notice of any demand, claim or circumstances which would or might give rise to a claim or the commencement of any action, proceeding or investigation in respect of which indemnity may be sought pursuant to this Section 11, such Indemnified Person shall promptly notify the Company in writing (the "***Requisite Notice***") and the Company shall assume sole control of the defense thereof as part of its own defense, and the fees and expenses thereof shall be borne by the Company; provided, however, that (x) the failure of any Indemnified Person so to notify the Company shall not relieve the Company of its obligations hereunder except to the extent that the Company is actually prejudiced by such failure to notify and (y) the Company's counsel shall not be entitled to have sole control over the defense of any such proceeding if there is an actual conflict of interest between the Company and such Indemnified Person under applicable principles of legal ethics which require both the Indemnified Person and the Company to consent to joint representation in such proceeding and the Company shall, in such case, be responsible for the reasonable fees and expenses of such additional counsel. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the Company's counsel shall control the defense, and the fees and expenses of such additional counsel shall be at the expense of such Indemnified Person. If the Indemnified Person refuses to allow the Company's counsel to control the defense, or does not reasonably cooperate with the Company in connection with such defense (in each case, excluding situations where there is an actual conflict of interest as referred to above) after notice and a ten day cure period for curing such compliance, the Company shall have no obligation of indemnification or defense hereunder. Notwithstanding anything to the contrary contained herein, the Company's aggregate cumulative liability under this Section 11 shall not exceed the Maximum Company Liability. For the avoidance of doubt, the Company shall not be liable for any settlement of any proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned (provided that for the avoidance of doubt the Company shall be permitted to withhold consent as to any such settlement that is reasonably likely to prejudice the Company or its Affiliates in a related proceeding). Without the prior written consent of the Indemnified Person, which consent shall not be unreasonably withheld, delayed or conditioned, the Company shall not effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Person is or is reasonably likely to be a party and indemnity could have been sought hereunder by such Indemnified Party, unless such settlement includes an unconditional release (without admission of liability) of such Indemnified Person from all liability arising out of such proceeding and such settlement does not contain non-monetary obligations that materially adversely affect such Indemnified Person. The Company's obligations under this Section 11 shall terminate on the second anniversary of the consummation of the Closing; provided, however, that the Company's obligations which terminate pursuant to this sentence shall not terminate with respect to any claim with respect to which the Company has been given the applicable Requisite Notice from the Indemnified Person prior to the second anniversary of the Closing Date.

12. Enforcement; Specific Performance. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Investors and the Company will be entitled to specific performance, injunctive and other equitable relief under the

Transaction Documents. The parties agree that monetary damages will not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation (i) security or the posting of any bond in connection with such relief, or (ii) the defense that a remedy at law would be adequate.

13. Miscellaneous.

13.1. Waivers and Amendments. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only in writing executed by the Company and the Required Investors; provided, that (i) such written consent must also be executed by any Investor that is materially, disproportionately and adversely affected, and (ii) no amendment or waiver may increase the obligations of any Investor without the prior written consent of such Investor. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any Shares purchased under this Agreement at the time outstanding, each future holder of all such Shares, and the Company. Neither this Agreement, nor any provision hereof, may be changed, waived, discharged or terminated orally or by course of dealing, but only by an instrument in writing.

13.2. Notices. Any notices, requests, demands and other communications required or permitted in this Agreement shall be effective if in writing and (i) delivered personally, (ii) sent by facsimile or e-mail or (iii) delivered by overnight courier, in each case, addressed as follows:

If to the Company to:

Cyclerion Therapeutics, Inc.
301 Binney Street
Cambridge, MA 02142
Attention: General Counsel
Facsimile:
E-mail:

with a copy (which shall not constitute notice) to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Paul Kinsella
Facsimile: (617) 235-0822
E-mail: paul.kinsella@ropesgray.com

and

Hughes Hubbard & Reed LLP
One Battery Park Plaza, 12th floor

New York, NY 10004-1482
Attention: Ken Lefkowitz
Facsimile: (212) 299-6557
E-mail: ken.lefkowitz@hugheshubbard.com

If to any Investor:

To the address set forth on Schedule I hereto;

or at such other address as the Company or such Investor each may specify by written notice to the other parties hereto. Any party may change the address to which notices, requests, consents or other communications hereunder are to be delivered by giving the other parties notice in the manner set forth in this Section 13.2. Any such notice or other communication shall be deemed to have been given as of the date so personally delivered or transmitted by facsimile or e-mail (or, if delivered or transmitted after normal business hours at the location of recipient, on the next Business Day), one Business Day after the date when sent by overnight delivery services or seven days after the date so mailed if by certified or registered mail.

13.3. Cumulative Rights. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

13.4. Successors and Assigns; Syndication. All the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective parties hereto, the successors and permitted assigns of the Investors and the successors of the Company, whether so expressed or not. Prior to the Closing Date, the Investors may transfer and assign any portion of their rights and obligations to acquire Shares at the Closing under this Agreement to a Person or Persons only with the prior written consent of the Company; *provided that* each such transferee shall become a party to this Agreement as an "Investor" hereunder, and Schedule I shall be updated accordingly to include such transferee and reflect the number of Shares to be acquired by such transferee at the Closing pursuant to the terms and conditions of this Agreement. Following the Closing Date, (a) an Investor may transfer and assign the portion of his, her or its rights and obligations under this Agreement under Section 8 (but no other Section) to a transferee of all or a portion of the Shares purchased under this Agreement by such Investor, and (b) an Investor may transfer and assign all of its rights and obligations under this Agreement to its Affiliate in connection with the transfer of all or a portion of the Shares purchased under this Agreement by such Investor to such Affiliate. Any Investor Tax Affiliate or Investor Commission Affiliate transferee of Shares shall be required to make the representations and warranties contained in Section 3.14 (both as of the date of the Original Agreement and as of the date of such transfer) as to itself for the benefit of the Company prior to effecting such transfer. Any attempt to assign or transfer any right hereunder in violation of this Section 13.4 shall be void ab initio.

13.5. Headings. The headings of the Sections and paragraphs of this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement.

13.6. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to its conflict of law principles.

13.7. Fees and Expenses. Each party shall bear his, her or its own fees and expenses incurred in connection with the transactions contemplated hereby.

13.8. Jurisdiction. Any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby shall be brought in any federal or state court located in the Commonwealth of Massachusetts, and each of the parties hereby consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding which is brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 13.2 shall be deemed effective service of process on such party.

13.9. Waiver of Jury Trial. TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW WHICH CANNOT BE WAIVED, THE INVESTORS AND THE COMPANY HEREBY WAIVE, AND COVENANT THAT NEITHER THE COMPANY NOR THE INVESTORS WILL ASSERT, ANY RIGHT TO TRIAL BY JURY ON ANY ISSUE IN ANY PROCEEDING, WHETHER AS PLAINTIFF, DEFENDANT OR OTHERWISE, IN RESPECT OF ANY ISSUE, CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, ANY OTHER AGREEMENT OR THE SUBJECT MATTER HEREOF OR THEREOF OR IN ANY WAY CONNECTED WITH, RELATED OR INCIDENTAL TO THE DEALINGS OF THE INVESTORS AND THE COMPANY HEREUNDER OR THEREUNDER, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING AND WHETHER IN TORT OR CONTRACT OR OTHERWISE. The Company acknowledges that it has been informed by the Investors that the provisions of this Section 13.9 constitute a material inducement upon which the Investors are relying and will rely in entering into this Agreement. Any Investor or the Company may file an original counterpart or a copy of this Section 13.9 with any court as written evidence of the consent of the Investors and the Company to the waiver of the right to trial by jury.

13.10. Termination. This Agreement will terminate in its entirety immediately upon the termination of the Separation Agreement (without regard to the other "Transaction Agreements" referred to therein) prior to the Closing; provided, that if the Closing has not occurred on or before April 15, 2019, the Required Investors or the Company may terminate this Agreement in its entirety by written notice to the Company and each of the Investors; provided, further, that if the Closing has not occurred on or before May 15, 2019, any Investor (with respect to his, her or its Investor Commitment Amount) may terminate this Agreement in its entirety as to itself and the Company by written notice to the Company; provided, however that

any such termination shall not relieve any party from liability for a willful breach of any of his, her or its obligations under this Agreement occurring prior to such termination.

13.11. Counterparts; Effectiveness. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, with the same effect as if all parties had signed the same document. All such counterparts shall be deemed an original, shall be construed together and shall constitute one and the same instrument. This Agreement shall become effective when each party hereto shall have received counterparts hereof signed by all of the other parties hereto.

13.12. Entire Agreement. The Transaction Documents and the Confidentiality Agreements contain the entire agreement among the parties hereto with respect to the subject matter hereof and thereof and such agreements supersede and replace all other prior agreements, written or oral, among the parties hereto with respect to the subject matter hereof and thereof.

13.13. No Presumption. With regard to each and every term and condition of this Agreement and the other Transaction Documents, the parties understand and agree that the same has been mutually negotiated, prepared and drafted, and if at any time the parties desire or are required to interpret or construe any such term or condition or any agreement or instrument subject hereto, no consideration shall be given to the issue of which party actually prepared, drafted or requested any term or condition of this Agreement.

13.14. Severability. If any provision of this Agreement shall be found by any court of competent jurisdiction to be invalid or unenforceable, the parties hereby waive such provision to the extent that it is found to be invalid or unenforceable. Such provision shall, to the maximum extent allowable by law, be modified by such court so that it becomes enforceable, and, as modified, shall be enforced as any other provision hereof, all the other provisions hereof continuing in full force and effect.

13.15. Waiver of Conflicts. Each party to this Agreement acknowledges that Ropes & Gray LLP, counsel for the Company, has in the past performed and may continue to perform legal services for certain of the Investors in matters unrelated to the transactions described in this Agreement. Accordingly, each party to this Agreement hereby (a) acknowledges that they have had an opportunity to ask for information relevant to this disclosure; and (b) gives his, her or its informed consent to Ropes & Gray LLP's representation of certain of the Investors in such unrelated matters and to Ropes & Gray's representation of the Company in connection with this Agreement and the transactions contemplated hereby.

13.16. Amendment and Restatement. Notwithstanding anything to the contrary contained herein (including references to "the date hereof" contained herein), and notwithstanding the amendment and restatement of the Original Agreement, (a) each of the Specified Investor and the Company acknowledge and agree that such amendment and restatement shall not affect the timing of the representations and warranties made by either party to the other in accordance with the Original Agreement, and (b) each of the Additional Investors and the Company acknowledge and agree that such amendment and restatement shall not affect

the timing of the representations and warranties made by either party to the other in accordance with the terms of the Joinders entered into between each Investor and the Company.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have caused this Amended and Restated Common Stock Purchase Agreement to be duly executed as of the day and year first above written.

THE COMPANY

CYCLERION THERAPEUTICS, INC.

By: _____
Name:
Title:

[Signature Page to Amended and Restated Common Stock Purchase Agreement]

Investors:

[INVESTORS]

By: _____
Name:
Title:

[Signature Page to Amended and Restated Common Stock Purchase Agreement]

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Exhibit 99.1

, 2019

Dear Ironwood Stockholder:

In May 2018, we announced a transformative milestone for Ironwood—our intent to separate our soluble guanylate cyclase, or sGC, stimulators business from our commercial and gastrointestinal, or GI, business, thereby creating two independent, publicly traded companies. The strategic objectives of the separation are to unlock value, enhance operational performance and strategic flexibility and tailor the capital structures to best serve these distinct businesses.

- Following the separation, Ironwood Pharmaceuticals, Inc., or Ironwood, expects to focus principally on its core expertise in GI, including advancing LINZESS® (linaclotide) and its GI development programs.

- The new company, which has been named Cyclerion Therapeutics, Inc., or Cyclerion, expects to leverage its pioneering work in cyclic guanosine monophosphate, or cGMP, and sGC pharmacology to advance an innovative pipeline of five distinct programs focused on the treatment of serious and orphan diseases.

We believe the best way to realize the full potential of this separation is for Ironwood and Cyclerion to operate independently, with distinct management teams and boards of directors dedicated to their unique business strategies. Through this separation, we have the potential to create two focused, durable businesses that are well-positioned with the resources, talent and foundation to be industry leaders in their respective fields.

Going forward, Ironwood intends to focus primarily on programs targeting treatments for GI diseases and abdominal pain. Ironwood's assets are expected to continue to include its flagship product linaclotide, which is available in the United States and over 30 countries worldwide for the treatment of adults with irritable bowel syndrome with constipation, or IBS-C, or chronic idiopathic constipation under the brand names LINZESS® and CONSTELLA® (linaclotide). In addition to commercializing linaclotide, the company also intends to develop and commercialize (if approved) its core pipeline candidates, IW-3718, a Phase 3 program being developed for the potential treatment of persistent gastroesophageal disease, and MD-7246 (formerly linaclotide delayed release), which is being evaluated for the treatment of abdominal pain associated with all forms of IBS. All of Ironwood's current linaclotide collaborations will remain with Ironwood.

Upon completion of the separation, Cyclerion will be spun out of Ironwood and established as an independent, publicly traded company. The separation is anticipated to be tax-free to Ironwood stockholders. Under the terms of the distribution, each Ironwood stockholder will receive one share of Cyclerion common stock for every 10 shares of Ironwood common stock held of record on , 2019, the record date for the distribution. You do not need to take any action to receive the common stock of Cyclerion to which you are entitled as an Ironwood stockholder as of the record date.

Please read the attached information statement, which is being shared with all Ironwood stockholders as of the record date for the distribution. It describes the separation in detail and contains important information about Ironwood and Cyclerion.

We thank you for your continued support of Ironwood.

Sincerely,

Terrance McGuire
Chairman of the Board

Ironwood Pharmaceuticals, Inc.

, 2019

Dear Future Cyclerion Shareholder:

On behalf of the entire Cyclerion team, I am pleased to welcome you as a future shareholder of our new company.

Cyclerion will be a clinical-stage biopharmaceutical company focused on harnessing the full therapeutic potential of nitric oxide signaling through development of next-generation soluble guanylate cyclase, or sGC, stimulators. sGC stimulators act synergistically with nitric oxide on sGC to boost production of cyclic guanosine monophosphate, or cGMP. cGMP is a key second messenger that regulates diverse and critical biological functions throughout the body including blood flow and vascular dynamics, inflammatory and fibrotic processes, metabolism and neuronal function.

Cyclerion intends to discover, develop and commercialize breakthrough treatments for serious and orphan diseases by developing differentiated next-generation sGC stimulators designed to preferentially enhance nitric oxide signaling in tissues and organs that are most relevant to the specific diseases they are each intended to treat.

At launch, Cyclerion's portfolio will comprise five differentiated sGC stimulator programs:

- olinciguat, currently in a Phase 2 trial as an oral, once-daily vascular sGC stimulator for patients suffering from sickle cell disease;
- praliciguat, in two separate Phase 2 trials as an oral, once-daily systemic sGC stimulator for heart failure with preserved ejection fraction, or HFpEF, and for diabetic nephropathy, respectively;
- IW-6463, a central nervous system-penetrant oral sGC stimulator, is currently in a Phase 1 first-in-human study and is designed to treat serious and orphan neurodegenerative diseases; and
- two organ-targeted programs to address serious and orphan diseases of the liver and lung, respectively.

We believe our extensive intellectual property position and team's deep expertise provide a competitive advantage as we aim to advance our portfolio of differentiated sGC stimulators.

We have applied to have our common stock listed on NASDAQ under the symbol "CYCN" in connection with the distribution of our company's common stock by Ironwood.

I invite you to learn more about Cyclerion by reviewing the enclosed information statement.

We look forward to our future as an independent company, and to your support as a Cyclerion shareholder as we begin this new and exciting chapter.

Sincerely,

Peter Hecht, Ph.D.
Chief Executive Officer

Cyclerion Therapeutics, Inc.

Information contained herein is subject to completion or amendment. A Registration Statement on Form 10 relating to these securities has been filed with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended.

PRELIMINARY AND SUBJECT TO COMPLETION, DATED MARCH 4, 2019

INFORMATION STATEMENT

CYCLERION THERAPEUTICS, INC.

This information statement is being furnished to you as a holder of common stock of Ironwood Pharmaceuticals, Inc., or Ironwood, in connection with the distribution of shares of common stock of Cyclerion Therapeutics, Inc., or Cyclerion. Cyclerion is a wholly owned subsidiary of Ironwood that will hold, directly or indirectly, assets and liabilities related to Ironwood's soluble guanylate cyclase, or sGC, stimulators business. To implement the distribution, Ironwood will distribute all of the outstanding shares of Cyclerion common stock on a pro rata basis to holders of Ironwood common stock in a manner that is intended to be tax-free for U.S. federal income tax purposes.

You will receive one share of Cyclerion common stock for every 10 shares of Ironwood common stock held of record by you as of the close of business on , 2019, the record date for the distribution. Registered holders of Ironwood common stock will receive cash in lieu of any fractional shares of Ironwood common stock that those holders would have received after application of the above ratio. As discussed under "The Separation and Distribution—Trading Between the Record Date and Distribution Date," if you sell your shares of Ironwood common stock in the "regular way" market after the record date and before the distribution, you also will be selling your right to receive shares of Cyclerion common stock in connection with the distribution. Cyclerion expects the shares of Cyclerion common stock to be distributed by Ironwood to you on , 2019. The date of distribution of Cyclerion common stock is referred to in this information statement as the "distribution date."

No vote of Ironwood stockholders is required for the distribution. Therefore, you are not being asked for a proxy, and you are requested not to send Ironwood a proxy, in connection with the distribution. You do not need to pay any consideration, exchange or surrender your existing shares of Ironwood common stock or take any other action to receive your shares of Cyclerion common stock.

In connection with the distribution, Cyclerion has entered into a common stock purchase agreement pursuant to which, upon the completion of the distribution, certain investors will make an aggregate cash investment in Cyclerion of up to $175.0 million in exchange for shares of Cyclerion common stock. This transaction is referred to in this information statement as the "private placement." See "Certain Relationships and Related Party Transactions—Private Placement."

There is no current trading market for Cyclerion common stock. Cyclerion expects that a limited market, commonly known as a "when issued" trading market, will develop on or shortly before the record date for the distribution, and that "regular way" trading of Cyclerion common stock will begin on the first trading day following the completion of the distribution. Cyclerion has applied to have its common stock listed on the Nasdaq Global Market under the symbol "CYCN."

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we will be subject to reduced public company reporting requirements.

In reviewing this information statement, you should carefully consider the matters described under the caption "*Risk Factors*" beginning on page 20.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this information statement is truthful or complete. Any representation to the contrary is a criminal offense.

This information statement does not constitute an offer to sell or the solicitation of an offer to buy any securities.

A Notice of Internet Availability of Information Statement Materials containing instructions for how to access this information statement is first being mailed to Ironwood stockholders on or about , 2019.

This information statement will be mailed to Ironwood stockholders who previously elected to receive a paper copy of Ironwood's materials.

The date of this information statement is , 2019.

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PRESENTATION OF INFORMATION

Except as otherwise indicated or unless the context otherwise requires, the information included in this information statement about Cyclerion assumes the completion of all of the transactions referred to in this information statement in connection with the separation and distribution.

Unless the context otherwise requires, references in this information statement to the following terms shall have the following respective meanings:

- "Ironwood" refers to Ironwood Pharmaceuticals, Inc., a Delaware corporation, and its consolidated subsidiaries;
- "distribution" refers to the distribution by Ironwood to Ironwood stockholders of record as of the record date of all of the outstanding shares of Cyclerion, as further described in this information statement;
- "sGC" refers to soluble guanylate cyclase;
- "sGC business" includes Ironwood's sGC stimulators business, including certain additional assets and liabilities associated with Ironwood's pipeline programs related to sGC stimulators;
- "separation" refers to the separation of Ironwood's sGC business from Ironwood's other businesses and the creation, as a result of the distribution, of an independent, publicly traded company, Cyclerion, that holds the sGC business, as further described in this information statement; and
- "Cyclerion," "we," "us," "our," "our company" and "the company" refer to Cyclerion, a Massachusetts corporation, together with its subsidiaries, as the context requires, in each case as they will exist, assuming the completion of all the transactions referred to in this information statement in connection with the separation and the distribution.

This information statement describes the businesses to be transferred to Cyclerion by Ironwood in the separation as if the transferred businesses were Cyclerion's businesses for all historical periods described. References in this information statement to Cyclerion's historical assets, liabilities, products, businesses or activities of Cyclerion's business are generally intended to refer to the historical assets, liabilities, products, businesses or activities of the transferred businesses as the businesses were conducted as part of Ironwood prior to the separation.

You should not assume that the information contained in this information statement is accurate as of any date other than the date set forth on the cover. Changes to the information contained in this information statement may occur after that date, and we undertake no obligation to update the information, except in the normal course of our public disclosure obligations or as required by applicable law.

Websites described in this information statement and the content therein or connected thereto shall not be deemed incorporated into this information statement.

Trademarks, Trade Names and Service Marks

Cyclerion owns or has rights to use the trademarks, service marks and trade names that it uses in conjunction with the operation of its business, including CYCLERION and CYCLERION THERAPEUTICS, which may be registered or trademarked in the United States and other jurisdictions. Cyclerion's rights to its trademarks may be limited to select markets. Each trademark, trade name or service mark of any other company appearing in this information statement is, to Cyclerion's knowledge, owned by such other company.

Industry and Other Data

We obtained the industry and market data in this information statement from our own internal estimates and from industry and general publications and research, surveys, studies and trials conducted by third parties. We are responsible for all of the disclosure contained in this information statement, and we believe that this third-party data is generally reliable; however, we have not independently verified industry and market data from third-party sources. In addition, while we believe our estimates are reliable, they have not been verified by any independent source.

Estimates in this information statement of the patient populations for the diseases that we are targeting are based on published estimates of the rates of incidence of the diseases from scientific and general publications and research, surveys and studies conducted by third parties that we consider to be reliable, although such publications do not guarantee the accuracy or completeness of this information.

QUESTIONS AND ANSWERS ABOUT THE SEPARATION AND DISTRIBUTION

What is Cyclerion and why is Ironwood separating Cyclerion's business and distributing Cyclerion's common stock?	Cyclerion, which is currently a wholly owned subsidiary of Ironwood, was formed to hold Ironwood's sGC business. The separation of Cyclerion from Ironwood and the distribution of Cyclerion common stock are intended to provide you with equity investments in two separate, independent public companies, each of which is able to focus on its respective business strategies. Ironwood and Cyclerion believe the separation will enable each business to pursue focused growth and investment strategies in its respective therapeutic areas of expertise resulting in the enhanced long-term performance of each business, as discussed in "The Separation and Distribution—Overview" and "The Separation and Distribution—Reasons for the Separation."
Why am I receiving this document?	Ironwood is delivering this information statement to you because you are a holder of record of shares of Ironwood common stock. If you remain a holder of shares of Ironwood common stock as of the close of business on , 2019, you will be entitled to receive one share of Cyclerion common stock for every 10 shares of Ironwood common stock that you held of record at the close of business on such date. This information statement will help you understand how the separation will affect your investment in Ironwood and your investment in Cyclerion after the distribution.
How will the separation of Cyclerion from Ironwood work?	To accomplish the separation, Ironwood will distribute all of the outstanding shares of Cyclerion common stock to Ironwood stockholders on a pro rata basis.
Why is the separation of Cyclerion structured as a distribution?	Ironwood believes that a tax-free distribution for U.S. federal income tax purposes of shares of Cyclerion common stock to the Ironwood stockholders is an efficient way to separate its sGC business in a manner that will create long-term value for Ironwood, Cyclerion and their respective shareholders. For more information, see "The Separation and Distribution—Conditions to the Distribution."
What is the record date for the distribution?	The record date for the distribution will be , 2019.

When will the distribution occur?	It is expected that all of the shares of Cyclerion common stock will be distributed by Ironwood on , 2019, to holders of record of Ironwood common stock at the close of business on , 2019. We refer to the date on which shares of Cyclerion common stock are distributed as the "distribution date."
What do stockholders need to do to participate in the distribution?	Nothing. **Stockholders of Ironwood as of the record date will not be required to take any action to receive Cyclerion common stock, but are urged to read this entire information statement carefully.** No stockholder approval of the distribution is required or sought. **Therefore, you are not being asked for a proxy to vote on the separation, and you are requested not to send us a proxy.** You will neither be required to pay anything for the shares of Cyclerion common stock nor be required to surrender any shares of Ironwood common stock to participate in the distribution. **Please do not send in your Ironwood stock certificates.** The distribution will not affect the number of outstanding shares of Ironwood common stock or any rights of Ironwood stockholders, although it will affect the market value of each outstanding share of Ironwood common stock. See "Questions and Answers about the Separation and Distribution—Will the distribution affect the market price of my Ironwood common stock?" for more information.
How will Ironwood distribute shares of Cyclerion common stock?	*Registered stockholders*: If you are a registered stockholder (meaning you hold physical Ironwood stock certificates or you own your shares of Ironwood common stock directly through an account with Ironwood's transfer agent, Computershare Trust Company, N.A., or Computershare), the distribution agent will credit the number of whole shares of Cyclerion common stock you receive in the distribution to your book-entry account on or shortly after the distribution date, and the distribution agent will mail you a check for any cash in lieu of fractional shares you are entitled to receive. "*Street name*" or *beneficial stockholders*: If you own your shares of Ironwood common stock beneficially through a bank, broker or other nominee, your bank, broker or other nominee will credit your account with the number of whole shares of Cyclerion common stock you receive in the distribution on or shortly after the distribution date. Please contact your bank, broker or other nominee for further information about your account.

	We will not issue any physical stock certificates to any stockholders receiving shares in the distribution, unless requested through Computershare. See "The Separation and Distribution—When and How You Will Receive the Distribution" for more information.
How many shares of Cyclerion common stock will I receive in the distribution?	Ironwood will distribute to you one share of Cyclerion common stock for every 10 shares of Ironwood common stock you hold of record as of the close of business on , 2019, the record date. Based on approximately 155,488,389 shares of Ironwood common stock outstanding as of February 25, 2019, a total of approximately 15,548,838 shares of Cyclerion common stock will be distributed. For more information, see "The Separation and Distribution—The Number of Shares of Cyclerion Common Stock You Will Receive."
Will Cyclerion issue fractional shares in the distribution?	Cyclerion will not distribute fractional shares of its common stock in the distribution. Instead, all fractional shares that Ironwood registered stockholders would otherwise have been entitled to receive will be aggregated into whole shares and sold in the open market by the distribution agent. We expect the distribution agent, acting on behalf of Ironwood, to take about two weeks after the distribution date to fully distribute the aggregate net cash proceeds of these sales on a pro rata basis (based on the fractional share such holder would otherwise be entitled to receive) to those stockholders who would otherwise have been entitled to receive fractional shares. Recipients of cash in lieu of fractional shares will not be entitled to any interest on the amounts of payment made in lieu of fractional shares. For more information, see "The Separation and Distribution—The Number of Shares of Cyclerion Common Stock You Will Receive."
What are the conditions to the distribution?	The distribution is subject to the satisfaction (or waiver by Ironwood in its sole and absolute discretion) of a number of conditions to be set forth in the separation agreement, including, among others:

- the SEC declaring effective Cyclerion's registration statement on Form 10 of which this information statement forms a part, and no stop order relating to the registration statement shall be in effect and no proceedings for such purpose shall be pending before or threatened by the SEC, and the distribution of the information statement (or the Notice of Internet Availability of the Information Statement) to all holders of record of shares of Ironwood common stock as of the close of business on the record date;

- the shares of Cyclerion common stock to be distributed shall have been accepted for listing by Nasdaq, subject to official notice of distribution;

- the receipt and continuing validity of either (i) a private letter ruling from the Internal Revenue Service, or the IRS, and an opinion from KPMG LLP, both satisfactory to Ironwood's board of directors, together confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Internal Revenue Code of 1986, as amended, or the "Code," or (ii) an opinion of KPMG LLP, satisfactory to Ironwood's board of directors, confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code;

- the receipt and continuing validity of an opinion from an independent appraisal firm to Ironwood's board of directors, that is in form and substance acceptable to Ironwood in its sole and absolute discretion, confirming the solvency of Cyclerion after the distribution and, as to the compliance by Ironwood in declaring to pay the distribution, with surplus requirements under Delaware corporate law;

- all permits, registrations and consents required under the securities or blue sky laws of states or other political subdivisions of the United States or of other foreign jurisdictions in connection with the distribution shall have been received;

- no order, injunction, or decree issued by any court of competent jurisdiction or other legal restraint or prohibition preventing the consummation of the distribution or any of the related transactions shall be pending, threatened, issued or in effect;

- the board of directors of Ironwood shall have declared the distribution and approved all related transactions (and such declaration and approval not having been withdrawn);
- Cyclerion shall have executed and delivered the transaction agreements relating to the separation; and
- no other event or development existing or having occurred that, in the sole and absolute judgment of Ironwood's board of directors, makes it inadvisable to effect the distribution and other related transactions.

Ironwood and Cyclerion cannot assure you that any or all of these conditions will be met, and Ironwood may waive any of these conditions to the distribution. In addition, Ironwood can determine, at any time, not to proceed with the distribution. For more information, see "The Separation and Distribution—Conditions to the Distribution."

What is the expected date of completion of the distribution?

The completion and timing of the distribution are dependent upon a number of conditions. It is expected that the shares of Cyclerion common stock will be distributed by Ironwood on , 2019 to the holders of record of shares of Ironwood common stock at the close of business on the record date. However, no assurance can be provided as to the timing of the distribution or that all conditions to the distribution will be met.

Can Ironwood decide to cancel the distribution of Cyclerion common stock even if all the conditions have been met?

Yes, until the distribution has occurred, Ironwood has the right to terminate the distribution, even if all of the conditions are satisfied. See "The Separation and Distribution—Conditions to the Distribution" for more information.

What if I want to sell my Ironwood common stock or my Cyclerion common stock?

You should consult with your advisors, such as your broker, bank or tax advisor.

What is "regular way" and "ex- distribution" trading of Ironwood stock?

Beginning on or shortly before the record date and continuing up to and including the distribution date, it is expected that there will be two markets in shares of Ironwood common stock: a "regular way" market and an "ex-distribution" market. Shares of Ironwood common stock that trade in the "regular way" market will trade with an entitlement to shares of Cyclerion common stock distributed pursuant to the distribution. Shares that trade in the "ex-distribution" market will trade without an entitlement to shares of Cyclerion common stock distributed pursuant to the distribution.

If you hold shares of Ironwood common stock on the record date and you decide to sell any shares of Ironwood common stock before the distribution date, you should make sure your broker, bank or other nominee understands whether you want to sell your shares of Ironwood common stock with or without your entitlement to receive Cyclerion common stock pursuant to the distribution. See "The Separation and Distribution—Trading Between the Record Date and Distribution Date" for more information.

Where will I be able to trade shares of Cyclerion common stock?

Currently, there is no public market for Cyclerion common stock. Cyclerion has applied to have its common stock authorized for listing on the Nasdaq Global Market under the symbol "CYCN."

Cyclerion anticipates that trading in shares of its common stock will begin on a "when issued" basis on or shortly before the record date for the distribution and will continue up to and including the distribution date. "When issued" trading in the context of a separation refers to a sale or purchase made conditionally on or before the distribution date because the securities of the separated entity have not yet been distributed. "When issued" trades generally settle within two weeks after the distribution date. On the first trading day following the distribution date, any "when issued" trading of our common stock will end and "regular way" trading will begin. "Regular way" trading refers to trading after the security has been distributed and typically involves a trade that settles on the second full trading day following the date of the trade. See "The Separation and Distribution—Trading Between the Record Date and Distribution Date" for more information. We cannot predict the trading prices for our common stock before, on or after the distribution date.

What will happen to the listing of shares of Ironwood common stock?

Shares of Ironwood common stock will continue to trade on the Nasdaq Global Select Market after the distribution.

Will the number of shares of Ironwood common stock that I own change as a result of the distribution?

No. The number of shares of Ironwood common stock that you own will not change as a result of the distribution.

Will the distribution affect the market price of my Ironwood common stock?

Yes. As a result of the distribution, Ironwood expects the trading price of shares of Ironwood common stock immediately following the distribution to be lower than the "regular way" trading price of such shares immediately prior to the distribution because the trading price will no longer reflect the value of the sGC business. Furthermore, as the market assesses Ironwood following the separation, the trading price of shares of Ironwood common stock may fluctuate. There can be no assurance that, following the distribution, the combined trading prices of Ironwood common stock and Cyclerion common stock will equal or exceed what the trading price of Ironwood common stock would have been in the absence of the separation, and it is possible the post-distribution combined equity value of Ironwood and Cyclerion will be less than Ironwood's equity value prior to the distribution.

What are the material U.S. federal income tax consequences of the distribution?

It is a condition to the distribution that Ironwood receive either (i) a private letter ruling from the IRS and an opinion from KPMG LLP, both satisfactory to Ironwood's board of directors, together confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code, or (ii) an opinion of KPMG LLP, satisfactory to Ironwood's board of directors, confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code. Assuming that the distribution, together with certain related transactions, so qualifies, for U.S. federal income tax purposes, no gain or loss will be recognized by you and no amount will be included in your income upon receipt of shares of Cyclerion common stock pursuant to the distribution. You will, however, recognize gain or loss for U.S. federal income tax purposes with respect to cash received in lieu of a fractional share of Cyclerion common stock.

You should consult your own tax advisor as to the particular consequences of the distribution to you, including the applicability and effect of any U.S. federal, state and local tax laws, as well as non-U.S. tax laws. For more information regarding the material U.S. federal income tax consequences of the distribution, see "Material U.S. Federal Income Tax Consequences."

How will I determine my tax basis in the shares of Cyclerion common stock I receive in the distribution?

For U.S. federal income tax purposes, your aggregate basis in the common stock that you hold in Ironwood and the new Cyclerion common stock received in the distribution (including any fractional share interest in Cyclerion common stock for which cash is received) will equal the aggregate basis in the shares of Ironwood common stock held by you immediately before the distribution, allocated between your shares of Ironwood common stock and Cyclerion common stock (including any fractional share interest in Cyclerion common stock for which cash is received) you receive in the distribution in proportion to the relative fair market value of each on the distribution date, for which the relative closing prices on the Nasdaq Stock Market will be used.

You should consult your own tax advisor as to the particular consequences of the distribution to you, including the application of the tax basis allocation rules and the application of state, local and non-U.S. tax laws.

What will Cyclerion's relationship be with Ironwood following the distribution?

To effect a decisive and efficient separation into two thriving companies, Cyclerion intends to enter into a separation agreement and certain other agreements with Ironwood, including a tax matters agreement, an employee matters agreement, a development agreement, an intellectual property license agreement, a transition services agreement under which we will temporarily receive certain services from Ironwood and a second transition services agreement under which we will temporarily provide certain services to Ironwood. These agreements will provide for the separation between Ironwood and Cyclerion of the assets, employees, liabilities and obligations (including investments, property and employee benefits and tax-related assets and liabilities) of Ironwood attributable to periods prior to, at and after the distribution and will govern the relationship between Ironwood and Cyclerion subsequent to the completion of the distribution. For additional information regarding the separation agreement and other transaction agreements, see "Risk Factors—Risks Related to the Separation and the Private Placement" and "Certain Relationships and Related Person Transactions—Agreements with Ironwood."

Who will manage Cyclerion after the distribution?	Cyclerion will benefit from having in place a management team with a substantial background in the biopharmaceuticals business. Cyclerion's management team possesses deep knowledge of and experience in its industry. Cyclerion's management team is expected to include Peter M. Hecht, Ph.D., Ironwood's Chief Executive Officer who is expected to be Cyclerion's Chief Executive Officer after the distribution, Mark G. Currie, Ph.D., Ironwood's Senior Vice President, Chief Scientific Officer and President of R&D who is expected to be Cyclerion's President after the distribution and William Huyett, Ironwood's Chief Operating Officer who is expected to be Cyclerion's Chief Financial Officer after the distribution. For more information regarding Ironwood's management team and leadership structure, see "Management."
How will Cyclerion receive its initial cash capitalization?	In connection with the distribution, Cyclerion has entered into a common stock purchase agreement pursuant to which, upon the completion of the distribution, certain investors will make an aggregate cash investment in Cyclerion of up to $175.0 million in exchange for shares of Cyclerion common stock. Our management believes that the proceeds from the private placement, after the payment of certain separation-related expenses, will be sufficient to fund our operating expenses and capital expenditure requirements through the first quarter of 2021.
Are there risks associated with owning Cyclerion common stock?	Yes. Ownership of Cyclerion common stock is subject to both general and specific risks related to Cyclerion's business, the industry in which it operates, its ongoing relationships with Ironwood and its status as a separate, publicly traded company. Ownership of Cyclerion common stock is also subject to risks related to the separation. These risks are described in the "Risk Factors" section of this information statement beginning on page 20. You are encouraged to read that section carefully.
Does Cyclerion plan to pay dividends?	Cyclerion does not expect to pay a regular cash dividend following the distribution. The payment of any dividends in the future, and the timing and amount thereof, is within the discretion of Cyclerion's board of directors. See "Dividend Policy."

Who will be the distribution agent, transfer agent and registrar for the Cyclerion common stock?

The distribution agent, transfer agent and registrar for Cyclerion common stock will be Computershare Trust Company, N.A. For registered holders with questions relating to the transfer or mechanics of the stock distribution, you should contact:

Computershare Investor Services
PO BOX 505000
Louisville,
KY 40233-5000
Tel: 800-662-7232

How can I contact Ironwood or Cyclerion with any questions?

Before the distribution, if you have any questions relating to Ironwood or Cyclerion's business performance, you should contact:

Ironwood Pharmaceuticals, Inc.
Investor Relations Department
Meredith Kaya, Vice President, Investor Relations and Corporate Communications
Tel: 617-374-5082
E-mail: mkaya@ironwoodpharma.com

After the distribution, Cyclerion shareholders who have any questions relating to Cyclerion's business performance should contact Cyclerion at:

Cyclerion Therapeutics, Inc.

Brian Cali, Ph.D.
Head of Investor Relations and Corporate Communications
Address: 301 Binney Street,
Cambridge, MA 02142
Tel: 857-338-3262
E-mail: bcali@cyclerion.com

INFORMATION STATEMENT SUMMARY

The following is a summary of material information discussed in this information statement. This summary may not contain all the details concerning the separation or other information that may be important to you. To better understand the separation and Cyclerion's business and financial position, you should carefully review this entire information statement, including the risks discussed under "Risk Factors."

Except as otherwise indicated or unless the context otherwise requires, the information included in this information statement assumes the completion of all of the transactions referred to in this information statement in connection with the separation. Some of the statements in this summary constitute forward-looking statements. See "Cautionary Statement Concerning Forward-Looking Statements."

Cyclerion

Overview

We are a clinical-stage biopharmaceutical company harnessing the power of sGC pharmacology to discover, develop and commercialize breakthrough treatments for serious and orphan diseases. Our focus is enabling the full therapeutic potential of next-generation sGC stimulators. sGC stimulators are small molecules that act synergistically with nitric oxide on sGC to boost production of cyclic guanosine monophosphate, or cGMP. cGMP is a key second messenger that, when produced by sGC, regulates diverse and critical biological functions throughout the body including blood flow and vascular dynamics, inflammatory and fibrotic processes, metabolism and neuronal function. We believe that the key to unlocking the full therapeutic potential of the nitric oxide-cGMP pathway is to design differentiated next-generation sGC stimulators that preferentially modulate pathway signaling in tissues of greatest relevance to the diseases they are developed to treat. This targeted approach is intended to maximize the potential benefits of nitric oxide-cGMP pathway stimulation in disease-relevant tissues. We are led by an accomplished team, many of whom have worked together previously at Ironwood, with an exceptional track record of discovering, developing and commercializing meaningful therapies for patients while creating value for stockholders. Our strategy rests on a solid scientific foundation that is enabled by our people and capabilities, external collaborations and a responsive capital allocation approach.

We have an extensive portfolio of five differentiated sGC stimulators with several pipeline catalysts expected in 2019. The following table summarizes our programs:

Status of selected key development programs as of March 4, 2019. Represents current phase of development, does not correspond to the completion of a particular phase.

Strategic Core

We leverage the therapeutic potential of nitric oxide signaling by modulating the nitric oxide-cGMP pathway via pharmacologically tailored sGC stimulation. Nitric oxide signaling plays a central role in regulating diverse aspects of human physiology throughout the body, including vascular smooth muscle tone and blood flow, as well as processes that influence inflammation, fibrosis, metabolism and neuronal function. Deficient nitric oxide signaling is linked to a wide range of cardiovascular, metabolic, inflammatory, fibrotic and neurological diseases. Stimulation of sGC is clinically validated by ADEMPAS®, an sGC stimulator marketed by Bayer, that represents an important first step in demonstrating the therapeutic potential of this mechanism. In order to realize the significant potential of sGC stimulation to enable the development of important new medicines, we are focused on developing next generation sGC stimulators.

We design sGC stimulators with distinct pharmacologic and biodistribution properties that preferentially enhance nitric oxide-cGMP signaling in target tissues of greatest relevance to the diseases they are developed to treat. The resulting sGC stimulators are highly differentiated from each other, as well as from other sGC modulators and molecules that target this pathway via other mechanisms. This approach to the therapeutic application of nitric oxide-cGMP pharmacology is intended to allow us to harness the powerful multidimensional pharmacology of sGC stimulation for clinical application in serious and orphan diseases.

We have discovered and are advancing a pipeline of five differentiated sGC stimulator programs whose properties are tailored for distinct serious and orphan diseases with significant unmet clinical need.

- ***Olinciguat is an orally administered, once-daily, vascular sGC stimulator*** that we believe is well suited for the treatment of sickle cell disease, or SCD, given its distribution to the vasculature

and highly perfused organs, such as the kidney and lungs, which are frequently affected by this disease. By amplifying nitric oxide signaling, we believe that olinciguat has the potential to reduce the proportion of sickled cells, decrease vascular inflammation and cell adhesion, and improve nitric oxide-mediated vasodilation. For patients with SCD, we believe this may translate into reduction in debilitating daily symptoms such as chronic pain and fatigue, decrease in anemia, reduction in painful vaso-occlusive crises, or VOCs, and end-organ protection (especially for the kidney, heart and lung) potentially leading to an increase in survival. Olinciguat has been granted Orphan Drug Designation for SCD by the U.S. Food and Drug Administration, or the FDA, and is currently in a Phase 2 study, STRONG-SCD, that is expected to enroll approximately 88 patients. Following the completion of our ongoing Phase 2 study, should data warrant, we intend to advance olinciguat into late-stage development for SCD and, if approved, commercialize on our own in the United States and alone or through licensing arrangements with partners around the world. We expect results from this study in the second half of 2019.

- ***Praliciguat is an orally administered, once-daily systemic sGC stimulator*** that we believe is well suited for the treatment of serious cardiometabolic diseases given its very extensive distribution into tissues, particularly adipose, kidney, heart and liver. We believe this distribution profile is essential to realize the potential of sGC pathway pharmacology to treat cardiometabolic diseases that are characterized by adipose inflammation, metabolic dysfunction and associated multi-organ etiology and involvement. We are assessing the potential of praliciguat to treat two such diseases: diabetic nephropathy, or DN, and heart failure with preserved ejection fraction, or HFpEF. We expect results from Phase 2 studies in these indications in the second half of 2019.

- ***IW-6463 is an orally administered CNS-penetrant sGC stimulator*** that, because it readily crosses the blood-brain barrier, affords an unprecedented opportunity to expand the utility of sGC pharmacology to serious neurodegenerative diseases. Clinical and nonclinical research suggests that nitric oxide signaling plays a critical role in the central nervous system, or CNS, in memory formation and retention, control of cerebral blood flow and modulation of neuroinflammation. Nitric oxide is a potent neurotransmitter, and impaired nitric oxide-sGC-cGMP signaling is believed to play an important role in the pathogenesis of several neurodegenerative diseases. In preclinical models, IW-6463 has been associated with an increase in cerebral blood flow, improved neuronal health and function, reduced markers of neuroinflammation and enhanced cognition. CNS pharmacological activity of IW-6463 has been observed preclinically using multiple non-invasive techniques that can also be employed in early human clinical studies. Our first-in-human study of IW-6463 initiated in January of 2019 with results expected in the second half of 2019.

- ***Our liver-targeted sGC stimulator*** will be orally administered and designed to selectively partition to the liver. By achieving liver concentrations many fold higher than corresponding plasma concentrations, we intend to maximize hepatic pharmacology. In animal models of liver fibrosis treated with systemic sGC stimulators, we have observed reductions in liver fibrosis, inflammation and steatosis, pathophysiological processes that underlie multiple chronic liver diseases. We expect to nominate a development candidate in the first half of 2019 and progress to filing an Investigational New Drug/Clinical Trial Application, or IND/CTA, thereafter.

- ***Our lung-targeted sGC stimulator*** will be administered via inhalation and will be aimed at realizing the full potential of sGC stimulation in pulmonary diseases by selectively increasing exposure in the lung. Preclinically, our lead molecule is highly retained in the lung with greater than 50-fold selectivity for lung over plasma. In addition, in preclinical studies, the lead molecule is metabolically stable in the lung, whereas it is unstable in the plasma with rapid systemic clearance. We expect to nominate a development candidate in the first half of 2019 and progress to filing an IND/CTA thereafter.

We have a comprehensive intellectual property strategy to protect our platform and related proprietary technology that covers composition of matter, method of use, formulations and process development.

Value-Creating Enablers

People and capabilities

We are leaders in targeted sGC stimulator chemistry and nitric oxide-cGMP pathway pharmacology. Our founding team has deep knowledge and significant experience in cGMP pathway research and development, from the discovery and development of LINZESS® (linaclotide), an Ironwood product that leverages the pharmacology of the guanylate cyclase-C-cGMP pathway, to the development of the sGC stimulator chemistry libraries and systems pharmacology data that gave rise to the current portfolio of assets and will serve as the foundation for our future innovation.

We have an exceptional team with a proven track record at all levels within our organization. We have broad expertise throughout our organization in discovering, developing and commercializing category-leading products, and are led by a management team with a history of success delivering innovative therapies to patients while creating value for stockholders.

External collaboration

We leverage a diverse cross-disciplinary network of external advisors and experts to advance our drug candidates. We do this in three ways. First, we actively engage leading experts to access additional technologies and expertise to advance our programs. Second, we establish disease-area advisory boards of physicians, patients and payors to provide insights into the unmet medical need and to support the design of clinical trials. Finally, we use a pharmaceutical advisory board made up of veteran drug hunters with broad industry experience and a track record of innovation to help us refine our R&D strategy.

We will apply a "best-owner" approach to our compounds whereby we develop and commercialize product candidates independently or through a partner depending on which path we believe will offer the greatest risk-adjusted value for our shareholders and accelerate global patient access to our drugs. We intend to prioritize development and commercialization in diseases characterized by structurally attractive markets where we can successfully commercialize on our own. At this time, we do not have any partnerships for any of our product candidates and we intend to apply this "best owner approach" as we make decisions regarding potential partnerships.

Capital allocation and economics

The capital allocation decision making and financial management we use in our business will enable us to continually deploy capital and people to the most promising opportunities. Highlights of our capital allocation and financial management strategy include:

- **Decisive capital allocation:** We plan to establish a high threshold for therapeutic differentiation and compelling business case in each program.
- **Elastic, externalized cost structure:** Our experienced team will seek to use outside supplier/partners wherever possible, in order to benefit from any economies-of-scale and skill sets that such suppliers and partners provide while minimizing our fixed costs.
- **Mission-appropriate infrastructure:** Our infrastructure is designed to meet the needs of a multi-program development company intent on prosecuting and developing the sGC mechanism, generating and protecting key IP, compliance and attracting and retaining talent to further

advance our five lead sGC stimulator programs and discover additional disease-targeted sGC stimulators.

- **Development program-based management structure:** Our program leaders are accountable for performance against goals for each program based on clinical and scientific, cost and timeline performance metrics.

Summary of Risk Factors

An investment in Cyclerion common stock is subject to a number of risks, including risks related to our business, risks related to the separation and risks related to our common stock. The following list of risk factors is not exhaustive. Please read the information in the section captioned "Risk Factors" for a more thorough description of these and other risks.

Risks Related to Our Business

- Because we are a clinical-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale, valuing our business and predicting our prospects is challenging.
- Our business has incurred significant losses and we anticipate that we will continue to incur significant losses for the foreseeable future.
- We will need to raise additional funding to advance our product candidates, which may not be available on acceptable terms, or at all.
- The "target-to-disease" approach we are taking to discover and develop product candidates targeting the cGMP may never lead to marketable products.
- We may encounter substantial delays in our clinical studies, or we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.
- If we encounter difficulties in enrolling subjects in our clinical studies, we could be delayed or prevented from proceeding with clinical trials of our product candidates.
- The regulatory approval processes of the FDA, and comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable.
- Our product candidates may cause undesirable side effects that delay or prevent their regulatory approval, result in label restrictions or result in harmful consequences following any potential marketing approval.
- We face significant competition, including from approved products and product candidates in development, and our competitors may achieve regulatory approval before us or develop therapies that are safer, more advanced or more effective than ours.
- If third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.
- We rely completely on third-party suppliers to manufacture our clinical drug supplies for our product candidates, and we intend to rely on third parties to produce non-clinical, clinical and commercial supplies of any future product candidate.
- If we are unable to adequately protect our proprietary technology, others could compete against us more directly, which would have a material adverse impact on our business, prospects, financial condition and results of operations.

- If the market opportunities for our product candidates are smaller than we estimate, or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability may be harmed.
- Even if we obtain regulatory approval for our product candidates, our product candidates may not achieve broad market acceptance by patients, physicians, healthcare payors or others in the medical community.
- Our ability to generate meaningful revenues in foreign countries may be limited due to the strict price controls and reimbursement limitations imposed by governments outside of the United States.

Risks Related to the Separation and the Private Placement

- We may not achieve some or all of the expected benefits of the separation, and the separation could harm our business, prospects, financial condition and results of operations.
- We have no history of operating as an independent company and we expect to incur increased administrative and other costs following the separation by virtue of our status as an independent public company.
- The separation may impede our ability to attract and retain key personnel, which could materially harm our business.
- The separation may result in disruptions to, and harm our relationships with, our strategic business partners.
- If the distribution, together with certain related transactions, does not qualify as a transaction that is tax-free for U.S. federal income tax purposes, Ironwood and its stockholders could be subject to significant tax liabilities, and we could be required to indemnify Ironwood for material taxes pursuant to indemnification obligations under the tax matters agreement.
- We may not be able to engage in attractive strategic or capital-raising transactions following the separation.
- Our agreements with Ironwood may not reflect terms that would have resulted from negotiations with unaffiliated third parties.
- The combined post-separation value of Ironwood and our common stock may not equal or exceed the pre-separation value of Ironwood common stock.
- If the distribution occurs and you do not want to receive our common stock in the distribution, your sole recourse will be to divest yourself of your Ironwood common stock prior to the record date.
- Failure to complete the private placement could adversely impact the market price of our common stock as well as our business and operating results.

The Separation and Distribution

In May 2018, Ironwood announced its plans to separate its sGC business from its commercial and gastrointestinal business. The distribution is intended to be tax-free for U.S. federal income tax purposes. See "The Separation and Distribution—Conditions to the Distribution" for more information.

In furtherance of this plan, on , 2019, Ironwood's board of directors approved the distribution of all of the issued and outstanding shares of Cyclerion common stock on the basis of one share of Cyclerion common stock for every 10 shares of Ironwood common stock issued and

outstanding on , 2019, the record date for the distribution. As a result of the distribution, Cyclerion will become an independent, publicly traded company.

Immediately following the distribution and the private placement, we estimate that 27,304,462 shares of Cyclerion common stock will be issued and outstanding based on the number of shares of Ironwood common stock outstanding as of February 25, 2019. The actual number of shares of Cyclerion common stock issued in the distribution will be determined on , 2019, the record date. Additionally, the actual number of shares to be issued in the private placement will be determined by reference to the number of outstanding (a) shares of Cyclerion common stock, (b) Cyclerion restricted stock units and (c) options to purchase shares of Cyclerion common stock as of the closing of the private placement.

Cyclerion's Post-Distribution Relationship with Ironwood

Cyclerion intends to enter into a separation agreement with Ironwood, which is referred to in this information statement as the "separation agreement," and various other agreements with Ironwood, including a tax matters agreement, an employee matters agreement, a development agreement, an intellectual property license agreement, a transition services agreement under which we will temporarily receive certain services from Ironwood and a second transition services agreement under which we will temporarily provide certain services to Ironwood. These agreements will effectuate the separation and govern Cyclerion's relationship with Ironwood after the distribution. These agreements will provide for the allocation between Ironwood and Cyclerion of Ironwood's assets, employees, liabilities and obligations (including investments, property and employee benefits and tax-related assets and liabilities) attributable to periods prior to and after Cyclerion's separation from Ironwood. These agreements will also govern certain relationships between Ironwood and Cyclerion after the separation. For additional information regarding the separation agreement and the other related agreements, see "Risk Factors—Risks Related to the Separation" and "Certain Relationships and Related Person Transactions—Agreements with Ironwood."

Reasons for the Separation

The Ironwood board of directors believes that separating the sGC business from the remainder of Ironwood is in the best interests of Ironwood and its stockholders for a number of reasons, including that:

- the separation will allow each business to pursue its own operational and strategic priorities and more quickly respond to trends, developments and opportunities in its respective markets;
- the separation will create two separate and distinct management teams focused on each business's unique strategic priorities, target markets and corporate development opportunities;
- the separation will give each business opportunity and flexibility by pursuing its own investment, capital allocation and growth strategies consistent with its long-term objectives;
- the separation will enable the boards and management teams of each business to better align corporate performance goals with the specific vision, strategy and objectives of each business; and
- the separation will allow investors to separately value each business based on the unique merits, performance and future prospects of each business, providing investors with two distinct investment opportunities.

The Ironwood board of directors considered a number of other factors in evaluating the separation, including risks relating to the creation of a standalone company and possible increased overall costs as well as one-time separation costs, but concluded that the potential benefits of the

separation outweighed these factors. For more information, see "The Separation and Distribution—Reasons for the Separation" and "Risk Factors" included elsewhere in this information statement.

Corporate Information

Cyclerion was incorporated in the Commonwealth of Massachusetts on September 6, 2018 for the purpose of holding Ironwood's sGC business in connection with the separation described in this information statement. The contribution of this business to Cyclerion is occurring over a period of time prior to the distribution, and Cyclerion will have no operations prior to such contribution. At the time of the distribution, the address of Cyclerion's principal executive offices will be 301 Binney Street, Cambridge, MA 02142. Cyclerion's telephone number will be 857-327-8778. Cyclerion will also maintain a website at www.cyclerion.com.

Reason for Furnishing this Information Statement

This information statement is being furnished solely to provide information to stockholders of Ironwood who will receive shares of Cyclerion common stock in the distribution. It is not, and is not to be construed as, an inducement or encouragement to buy or sell any of Cyclerion's securities.

Implications of Being an Emerging Growth Company

Cyclerion qualifies as an "emerging growth company" as defined in the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other obligations that are otherwise applicable generally to public companies. These may include the following:

- being permitted to present only two years of audited financial statements (as a result of our status as a smaller reporting company), in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements;
- exemption from the requirements for holding a non-binding advisory vote on executive compensation or golden parachute arrangements;
- extended transition period for complying with new or revised accounting standards; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total gross annual revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the distribution; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

SUMMARY HISTORICAL AND UNAUDITED PRO FORMA COMBINED FINANCIAL INFORMATION

The following table presents Cyclerion's summary historical and unaudited pro forma combined financial information. Cyclerion derived the summary historical combined financial data as of and for the years ended December 31, 2017 and 2018 from Cyclerion's audited combined financial statements included elsewhere in this information statement.

The summary historical combined financial data includes certain expenses of Ironwood that were allocated to us for certain corporate functions including information technology, research and development, finance, legal, insurance, compliance and human resources activities. These costs may not be representative of the future costs we will incur as an independent, publicly traded company. In addition, Cyclerion's historical financial information does not reflect changes that we expect to experience in the future as a result of our separation from Ironwood, including changes in our cost structure, personnel needs, tax structure, capital structure, financing and business operations. The following summary unaudited pro forma combined financial information gives effect to the separation and the private placement, as if each had occurred on January 1, 2017. The unaudited pro forma adjustments are based on assumptions that Cyclerion's management believes are reasonable under the circumstances and given the information available at this time. Refer to the notes to the unaudited pro forma combined financial statements included elsewhere in this information statement for a discussion of adjustments reflected in the unaudited pro forma combined financial statements. Consequently, the financial information included here may not necessarily reflect Cyclerion's financial position, results of operations and cash flows in the future or what Cyclerion's financial position, results of operations and cash flows would have been had Cyclerion been an independent, publicly traded company during the periods presented.

For a better understanding, this section should be read in conjunction with the discussion in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the "Unaudited Pro Forma Combined Financial Statements" and corresponding notes and the audited combined financial statements and corresponding notes included elsewhere in this information statement.

	Year Ended December 31,		
(in thousands)	2017	2018	Pro Forma 2018 (unaudited)
Statement of Operations:			
Cost and expenses			
Research and development	$ 78,803	$ 87,716	$ 87,716
General and administrative	15,119	27,536	27,845
Net loss	$ (93,922)	$ (115,252)	$ (115,561)

	As of December 31,		
(in thousands)	2017	2018	Pro Forma 2018 (unaudited)
Balance Sheet:			
Total assets	$ 5,470	$ 7,401	$ 176,048
Accrued research and development costs	$ 4,905	$ 5,261	5,261
Total current liabilities	$ 14,037	$ 17,846	$ 15,065

RISK FACTORS

You should consider carefully the following risks and conditions, together with all the other information in this information statement, including our financial statements and notes thereto, when evaluating our common stock. The impact from these risks and conditions may be materially adverse to our business, prospects, financial condition and results of operations. The risks described below are not the only risks we face. Additional risks and uncertainties not currently known to us or those we currently view to be immaterial also may materially harm our business, prospects, financial condition and results of operations. As a result, the trading price of our common stock could decline, which could decrease the value of the shares you hold.

Risks Related to Our Financial Position and Capital Needs

Because we are a clinical-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale, valuing our business and predicting our prospects is challenging.

We are a clinical-stage biopharmaceutical company that was incorporated in 2018. Although our business was conducted within Ironwood prior to that time, we have no history as an independent company. We are developing a pipeline of sGC stimulators, but we have no products approved for commercial sale, and we have never generated revenue from product sales. Our operating activities to date have been limited primarily to organizing and staffing our company, business planning, raising capital, developing our technology, identifying potential product candidates and conducting early stage clinical trials for our most advanced product candidates, praliciguat, olinciguat and IW-6463.

To date, we have not obtained marketing approval for any of our product candidates, engaged, on our own or through a third party, in commercial scale manufacturing, or conducted significant sales and marketing activities necessary for the commercialization of our product candidates. Our short operating history offers limited insight into our prospects for success or even viability and we expect our operating results to be subject to frequent fluctuations. We will encounter challenges frequently experienced by early-stage biopharmaceutical companies in rapidly evolving fields, and we have not yet demonstrated an ability to successfully navigate such challenges. If we do not address the challenges we face successfully, our business, prospects, financial condition and results of operations will be materially harmed.

Our business has incurred significant losses and we anticipate that we will continue to incur significant losses for the foreseeable future. We have never generated revenue from product sales and may never be profitable.

Our business has incurred operating losses due to costs incurred in connection with our research and development activities and general and administrative expenses associated with our operations. Our net losses for the years ended December 31, 2017 and 2018 were $93.9 million and $115.3 million, respectively. As of December 31, 2018, we had a net parent investment of $(10.4) million. We expect to incur significant losses for several years, as we continue our research activities and conduct development of, and seek regulatory approvals for, our product candidates.

Our ability to generate revenue from our product candidates and achieve profitability depends on our ability, alone or with strategic partners, to complete the development of, and obtain the necessary regulatory and essential pricing and reimbursement approvals to commercialize, our product candidates. We do not know when we will generate revenues from sales of our products, if ever.

We expect to continue to incur significant losses for the foreseeable future. Our expenses could increase beyond expectations if we are required by the FDA, the European Medicines Agency, or the EMA, or other regulatory agencies, domestic or foreign, to perform clinical and other studies in addition to those that we currently anticipate. Even if one or more of the product candidates that we

develop is approved for commercial sale, we may never generate revenue in amounts sufficient to achieve and maintain profitability.

We will need to raise additional funding to advance our product candidates, which may not be available on acceptable terms, or at all. Failure to obtain capital when needed may force us to delay, limit or terminate our product development efforts or other operations. Raising additional capital may dilute our existing shareholders, restrict our operations or cause us to relinquish valuable rights.

Following the completion of the separation and the closing of the private placement, we expect that our cash and cash equivalents will be approximately $165.0 million, after the payment of certain separation-related expenses. Our management believes that such cash and cash equivalents will be sufficient to fund our operating expenses and capital expenditure requirements through the first quarter of 2021. The shares issuable in the private placement are subject to a cap equal to 46% of the shares of Cyclerion common stock then outstanding (or a lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution), after giving effect to the issuance of shares in the private placement. In the event that the aggregate cash investment in the private placement would result in the issuance of shares of Cyclerion common stock in excess of this cap, each investor's cash investment in the private placement would be reduced, on a pro rata basis, by an amount needed to result in the issuance in the aggregate of no more than 46% of the shares of Cyclerion common stock then outstanding (or such lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution). See "Certain Relationships and Related Party Transactions—Private Placement." If such a reduction in the aggregate cash investment in the private placement were to occur, our cash and cash equivalents would be reduced by an equivalent amount.

We will require significant additional funding to advance our product candidates, alone or with strategic partners, through clinical studies and to seek marketing approval, as well as to continue advancing our research and development efforts with our other product candidates. We may also need to raise additional funds sooner than currently anticipated if we choose to pursue additional indications or geographies for our product candidates, identify additional product candidates to advance through clinical development or otherwise expand more rapidly than we presently anticipate. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant expenses related to product sales, medical affairs, marketing, manufacturing and distribution.

We may seek to raise such capital through public or private equity or debt financings. Raising funds in the then current economic environment may present substantial challenges, and future financing may not be available in sufficient amounts or on acceptable terms, if at all. The terms of any financing may harm existing shareholders, and the issuance of additional securities, whether equity or debt, or the possibility of such issuance, may cause the market price of our shares to decline. The sale of additional equity or convertible securities may dilute the ownership of existing shareholders. The incurrence of indebtedness would result in increased fixed payment obligations, and we may agree to restrictive covenants, such as limitations on our ability to incur additional debt or limitations on our ability to acquire, sell or license intellectual property rights that could impede our ability to conduct our business. Regardless of the terms of our debt or equity financing, our agreements and obligations under the tax matters agreement with Ironwood may limit our ability to issue stock. See "—Risks Related to the Separation."

We may also seek funds through collaborations, strategic alliances, or licensing arrangements with third parties, and such agreements may involve relinquishing rights to our product candidates or technologies, future revenue streams, research programs or products candidates or to grant licenses on terms that may not be favorable to us. Such arrangements will limit our participation in the success of any of our product candidates that receive regulatory approval.

If we are unable to raise capital when needed or on reasonable terms, we may curtail, delay or discontinue our research or development programs, scale back or cease any commercialization efforts or wind down our business. In addition, such additional fundraising efforts may divert our management from their day-to-day activities, which may impede our ability to develop and commercialize our product candidates.

Risks Related to the Discovery, Product Development and Regulatory Approval of Our Product Candidates

The "target-to-disease" approach we are taking to discover and develop product candidates targeting cGMP, may never lead to marketable products.

We have concentrated our product research and development efforts to date on a "target-to-disease" approach to the treatment of diseases involving the cGMP pathway and/or sGC signaling, so our future success depends on the successful development of our pipeline of sGC stimulators. The scientific evidence to support the feasibility of developing our product candidates is both preliminary and limited. If we do not successfully develop and commercialize product candidates based upon our "target-to-disease" approach, we will not become profitable and the value of our common stock may decline.

Further, our focus solely on developing a pipeline of sGC stimulators, instead of multiple, more proven technologies, increases the risks associated with the ownership of our common stock. If we are not successful in developing any product candidates using our sGC platform, we may be required to change the scope and direction of our product development activities. In that case, we may not be able to identify and implement successfully an alternative product development strategy, which would materially harm our business, prospects, financial condition and results of operations.

Research and development of biopharmaceutical products is inherently risky. We may encounter substantial delays in our clinical studies, or we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.

Our current product candidates are at an early stage of development. Our business depends heavily on successful preclinical development, clinical testing, regulatory approvals and commercialization of our lead product candidates, olinciguat, praliciguat and IW-6463. These and our other product candidates, as well as any we may discover in the future, will require substantial additional development and testing, as well as regulatory approvals, prior to commercialization.

Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical and clinical studies that our product candidates are both safe and effective for use in each target indication. Each product candidate must demonstrate an adequate benefit-risk profile for its intended use in its intended patient population. In some instances, significant variability in safety or efficacy appear in different clinical studies of the same product candidate due to numerous factors, including changes in study protocols, differences in the number and characteristics of the enrolled subjects, variations in the dosing regimen and other clinical study parameters or the dropout rate among study participants. Product candidates in later stages of clinical studies often fail to demonstrate adequate safety and efficacy despite promising preclinical testing and earlier clinical studies. A number of companies in the biopharmaceutical industry have suffered significant setbacks in later-stage clinical studies. Most product candidates that begin clinical studies are never approved for commercialization by regulatory authorities.

If we encounter difficulties in enrolling subjects in our clinical studies, we could be delayed or prevented from proceeding with clinical trials of our product candidates.

Identifying and qualifying patients to participate in clinical studies of our product candidates is critical to our success. The timing of our clinical studies depends in part on the speed at which we can recruit patients to participate in testing our product candidates. The estimated incidence of our target indications, including SCD, DN and HFpEF, the initial target indications for our lead product candidates, varies considerably. Determining the incidence of these conditions, including in specific geographies or demographic groups, is challenging. The lower the actual incidence of these conditions, the more challenges we will encounter enrolling subjects in our clinical studies, which could delay development of our product candidates. Clinical trial enrollment may also encounter difficulties for a variety of other reasons. The number of patients eligible for a clinical trial may be substantially limited by stringent eligibility criteria in a study protocol, such as the inclusion of biomarker-driven identification or other highly specific criteria related to stage of disease progression or to specific patient reported outcome measures. The number of patients required to power the statistical analysis of the study's endpoints may be very large leading to an extended enrollment period. Issues such as the proximity of subjects to a study site, the complexity of the study design, our ability to recruit investigators with appropriate skill and experience, competing clinical studies for similar therapies or targeting similar subjects, perceptions of the benefit-risk profile of the product candidate relative to other available therapies or product candidates, and ability to obtain and maintain institutional review board, or IRB, or ethics committee, or EC, approvals and patient consents all could have a substantial impact on the timing of clinical trial enrollment. If we are unable to enroll sufficient subjects in clinical studies in a timely way, obtaining study results will be delayed, which may harm our business, prospects, financial condition and results of operations.

The regulatory approval processes of the FDA and comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates, we will be unable to generate product revenue and our business will be substantially harmed.

We cannot commercialize a product until the appropriate regulatory authorities have reviewed and approved the product candidate. The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable, typically takes many years following the commencement of clinical studies and depends upon numerous factors, including the type and complexity of the product candidates involved. Regulatory authorities have substantial discretion in the approval process and may refuse to accept an application for review, or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. We have not requested or obtained regulatory approval for any product candidate, and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval. Furthermore, although we have received fast track designation for our product candidate praliciguat for the treatment of patients with HFpEF, this designation, or any other expedited approval designation that we may receive, does not change the standards for approval and may not ultimately expedite the development or approval process.

Our ongoing clinical studies may not be completed on schedule, and our planned clinical studies may not begin on schedule, if at all. The completion or commencement of clinical studies can be delayed or prevented for a number of reasons, including, among others:

- the FDA or other regulatory bodies may not authorize us or our investigators to commence planned clinical studies, or require that we suspend ongoing clinical studies through imposition of clinical holds;

- negative results from our ongoing studies or other industry studies involving product candidates modulating the same or similar mechanism of action;
- delays in reaching or failing to reach agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical study sites, the terms of which can be subject to considerable negotiation and may vary significantly among different CROs and study sites;
- inadequate quantity or quality of a product candidate or other materials necessary to conduct clinical studies, for example delays in the manufacturing of sufficient supply of finished drug product;
- difficulties obtaining EC or IRB approval to conduct a clinical study at a prospective site or sites;
- challenges in recruiting and enrolling subjects to participate in clinical studies, the proximity of subjects to study sites, eligibility criteria for the clinical study, the nature of the clinical study protocol, the availability of approved effective treatments for the relevant disease and competition from other clinical study programs for similar indications;
- severe or unexpected drug-related side effects experienced by subjects in a clinical study;
- the presence of unanticipated metabolites in subjects in a clinical study may require considerable preclinical and clinical assessment;
- we may decide, or regulatory authorities may require us, to conduct additional clinical studies or abandon product development programs;
- delays in validating, or inability to validate, any endpoints utilized in a clinical study;
- the FDA may disagree with our clinical study design and our interpretation of data from clinical studies, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical studies;
- reports from preclinical or clinical testing of other competing candidates that raise safety or efficacy concerns; and
- difficulties retaining subjects who have enrolled in a clinical study but may be prone to withdraw due to rigors of the clinical studies, lack of efficacy, side effects, personal issues, or loss of interest.

Clinical studies may also be delayed or terminated as a result of ambiguous or negative interim results. In addition, a clinical study may be suspended or terminated by us, the FDA or other comparable authorities, the IRBs or ECs at the sites where the IRBs or ECs are overseeing a clinical study, a data and safety monitoring board overseeing the clinical study at issue or other regulatory authorities due to a number of factors, including, among others:

- failure to conduct the clinical study in accordance with regulatory requirements or our clinical protocols;
- inspection of the clinical study operations or study sites by the FDA or other regulatory authorities that reveals deficiencies or violations that require us to undertake corrective action, including in response to the imposition of a clinical hold;
- unforeseen safety issues, including any that could be identified in our ongoing studies, adverse side effects or lack of effectiveness;
- changes in government regulations or administrative actions;
- problems with clinical supply materials; and

- lack of adequate funding to continue clinical studies.

In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our treatment candidates. Even if regulatory approval is secured for any of our product candidates, the terms of such approval may limit the use of any approved product, which will limit its prospects for commercialization, which could have a material and adverse effect on our business, prospects, financial condition and results of operations.

Our product candidates may cause undesirable side effects that delay or prevent their regulatory approval, result in label restrictions or result in harmful consequences following any potential marketing approval.

The most commonly reported adverse events in the clinical studies for olinciguat were headaches, tachycardia, dizziness, nausea, vomiting and hypotension. The most commonly reported adverse events in the clinical studies for praliciguat were headaches, tachycardia, dizziness, nausea, vomiting and hypoglycemia. A single serious adverse event of upper gastrointestinal hemorrhage occurred in a patient receiving praliciguat in a Phase 2a study and was determined to be study drug related. In addition, the pharmacology of sGC stimulation is known to cause certain side effects. For example, the label for ADEMPAS® (riociguat), the only FDA-approved sGC stimulator to date, indicates that ADEMPAS® can cause, among other side effects, serious birth defects if taken while pregnant, reduced blood pressure and increased risk of bleeding. These side effects and any other undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical studies and could result in restrictive label language or delay or denial of regulatory approval.

Clinical studies by their nature utilize a defined sample of the potential enrolled subjects. With a limited number and variety of patients and limited duration of exposure, rare and severe side effects of our product candidates may only be uncovered when a significantly larger number and variety of patients are exposed to the product following commercialization. If our product candidates receive marketing approval, and we or others identify undesirable side effects caused by such product candidates (or any other similar products) after such approval, a number of potentially harmful consequences could result, including:

- regulatory authorities may withdraw their approval of the product;
- regulatory authorities may require modification to the label, such as addition of a special warning, or boxed warning, about risks or use or addition of contraindications;
- we may be required to change the way the product is distributed or administered, conduct additional clinical studies or adopt a potentially restrictive risk evaluation and mitigation strategy with elements to assure safe use, or a REMS with ETASU, in the United States;
- we may be required to conduct additional post-marketing studies;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we may be subject to regulatory investigations and government enforcement actions;
- we may decide or be forced to remove a product from the marketplace;
- we could be sued and held liable for injuries caused or purportedly caused by use or ingestion of a product;
- the commercialization potential may be harmed; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of our product candidates and could significantly harm our business, prospects, financial condition and results of operations.

Changes in regulatory requirements, FDA guidance or unanticipated events during our preclinical studies and clinical studies of our product candidates may occur, which may result in changes to preclinical or clinical study protocols or additional preclinical or clinical study requirements, which could result in increased costs to us and could delay our development timeline.

Changes in regulatory requirements, FDA guidance or unanticipated events during our preclinical studies and clinical studies may force us to amend preclinical studies and clinical study protocols or the FDA may impose additional preclinical studies and clinical study requirements. Amendments or changes to our clinical study protocols would require resubmission to the FDA and IRBs for review and approval, which may increase the cost or delay the timing or successful completion of clinical studies. Similarly, amendments to our preclinical studies may increase the cost or delay the timing or successful completion of those preclinical studies. If we experience delays completing, or if we terminate, any of our preclinical or clinical studies, or if we are required to conduct additional preclinical or clinical studies, the commercial prospects for our product candidates may be harmed and our ability to generate product revenue will be delayed.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.

In order to market any product outside of the United States, we must establish and comply with the numerous and varying safety, efficacy and other regulatory requirements of other countries. Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, but a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA or other comparable foreign regulatory authority grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the United States, including additional preclinical or clinical studies, as studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. The marketing approval processes in other countries may implicate all of the risks detailed above regarding FDA approval in the United States, as well as other risks. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our product candidates is also subject to approval.

Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. Failure to obtain marketing approval in other countries or any delay or other setback in obtaining such approval would impair our ability to market our product candidates in such countries. Any such impairment would reduce the size of our potential market, which could have a material adverse impact on our business, prospects, financial condition and results of operations.

Orphan drug status may not ensure that we have market exclusivity in a particular market, and we could lose orphan market exclusivity if another drug is approved first using the same method of action or demonstrates clinical superiority.

We may pursue orphan drug status for certain of our pipeline programs. In June 2018, olinciguat received orphan drug designation for the treatment of patients with SCD. In the United States, a

product candidate with orphan drug status qualifies for market exclusivity for seven years after FDA approval, unless a chemically identical competing product for the same indication is proven to be "clinically superior," that is, safer, more effective or significantly more convenient. Thus, if olinciguat or our other product candidates is granted regulatory approval in the United States, the FDA may not approve a competing generic product during the market exclusivity period. In Europe, EMA regulations provide ten-year marketing exclusivity for orphan drugs, subject to certain exceptions, including the demonstration of "clinically relevant superiority" by a similar medicinal product. EMA orphan marketing exclusivity applies to drug products for the same indication that use the same method of action but can be chemically dissimilar. If olinciguat or our other product candidates were to fail to obtain orphan drug status, or lose such status after it is obtained, or the marketing exclusivity that such status provides, our business, prospects, financial condition and results of operations could be materially harmed.

Risks Related to Our Reliance on Third Parties

We rely, and expect that we will continue to rely, on third parties to conduct any preclinical or clinical studies for our product candidates. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We do not have the ability to independently conduct clinical studies. We rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct clinical studies on our product candidates. We rely heavily on these parties for execution of clinical studies for our product candidates and can control only certain aspects of their activities. As a result, we have less direct control over the conduct, timing and completion of these clinical studies and the management of data developed through clinical studies than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may have staffing difficulties, fail to comply with contractual obligations, experience regulatory compliance issues, undergo changes in priorities, become financially distressed or form relationships with other entities, some of which may be our competitors.

These factors may materially impede the willingness or ability of third parties to conduct our clinical studies and may subject us to unexpected cost increases that are beyond our control. Nevertheless, we are responsible for ensuring that each of our clinical studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific requirements and standards, and our reliance on CROs does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with regulations and guidelines, including good clinical practices, or GCPs, for conducting, monitoring, recording and reporting the results of clinical studies to ensure that the data and results are scientifically credible and accurate, and that the study patients are adequately informed of the potential risks of participating in clinical studies. These regulations are enforced by the FDA and comparable foreign regulatory authorities for any products in clinical development. The FDA enforces GCP regulations through periodic inspections of clinical study sponsors, principal investigators and study sites. If we and our CROs or our investigators fail to comply with applicable GCPs, the clinical data generated in our clinical studies may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical studies before approving our marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our clinical studies comply with GCPs. In addition, our clinical studies must be conducted with product candidates produced under current good manufacturing practice, or GMP, regulations and will require a large number of test patients. Our failure or the failure of our CROs to comply with these regulations may require us to repeat clinical studies, which would delay the regulatory approval process and could also subject us to enforcement action up to and including civil and criminal penalties.

Although we design our product candidate clinical studies, CROs conduct all of the clinical studies. As a result, many important aspects of the execution of our drug development programs are outside of our direct control. In addition, the CROs may not perform all of their obligations under arrangements with us or in compliance with regulatory requirements, but we remain responsible and are subject to enforcement action that may include civil penalties and criminal prosecution for any violations of FDA laws and regulations during the conduct of our clinical studies. If the CROs do not perform clinical studies in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development and commercialization of our product candidates may be delayed or our development program materially and irreversibly harmed. We may fail to control the amount and timing of resources these CROs devote to our program or our clinical products. If we are unable to rely on clinical data collected by our CROs, we could be required to repeat, extend the duration of, or increase the size of our clinical studies and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical studies such CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, we believe that our financial results and the commercial prospects for our product candidates in the approved indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We rely completely on third-party suppliers to manufacture our non-clinical and clinical drug supplies for our product candidates, and we intend to rely on third parties to produce commercial supplies of any product candidates that are approved.

We do not currently have, nor do we plan to acquire, the infrastructure or capability to internally manufacture the clinical drug supply of our product candidates, or any future product candidates, for use in the conduct of our clinical studies, and we lack the internal resources and the capability to manufacture any product candidates on a clinical or commercial scale. We depend on third-party contract manufacturing organizations, or CMOs, for all of our requirements of raw materials, drug substance and drug product for our ongoing clinical trials of praliciguat, olinciguat and IW-6463. We do not have long-term supply agreements in place with our CMOs and each batch of our product candidates is individually contracted under a services agreement on a purchase order basis. We expect to continue to rely on CMOs for the supply of praliciguat, olinciguat and IW-6463 for later-stage development and commercialization, as well as for the supply of any other product candidates that we may identify, and we may not be able to enter into long-term supply agreements with such CMOs on favorable terms. As a result, we are subject to price fluctuations for our clinical drug supplies. If the prices charged by these CMOs increase, our business, prospects, financial condition and results of operations could be materially harmed.

In addition, the facilities used by our contract manufacturers to manufacture the active pharmaceutical ingredient and final drug product must complete a pre-approval inspection by the FDA and other comparable foreign regulatory agencies to assess compliance with applicable requirements, including current GMP, after we submit our new drug application, or NDA, or relevant foreign regulatory submission to the applicable regulatory agency. If the FDA or an applicable foreign regulatory agency determines now or in the future that these facilities are noncompliant, we may need to find alternative manufacturing facilities, which would impede our ability to develop, obtain regulatory approval for or market our product candidates.

Our reliance on third parties requires us to share our confidential information, including trade secrets and know-how, which increases the possibility that our confidential information will be misappropriated or disclosed.

Because we rely on third parties to manufacture our product candidates, and because we collaborate with various CROs to conduct our clinical trials, we must, at times, share our trade secrets or know-how with them. We seek to protect our confidential information, including know-how and trade secrets, in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with our collaborators, advisors and consultants prior to beginning our collaborations or disclosing confidential information to such parties. These agreements typically limit the rights of the third parties to use or disclose our confidential information, such as trade secrets and know-how. Despite these contractual provisions, the need to share our confidential information with third parties increases the risk that confidential information such as trade secrets and know-how becomes known by our competitors, is inadvertently incorporated into the technology of others, or is disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our confidential information including know-how and trade secrets, a competitor's discovery of our confidential information or other unauthorized use or disclosure could impair our competitive position and may have a material adverse effect on our business, prospects, financial condition and results of operations.

Any collaboration or license arrangements that we may enter into in the future may not be successful, which could impede our ability to develop and commercialize our product candidates.

We may seek collaboration or license arrangements for the commercialization, or potentially for the development, of certain of our product candidates depending on the merits of retaining commercialization rights for ourselves as compared to entering into collaboration or license arrangements. We will face, to the extent that we decide to enter into such arrangements, significant competition in seeking appropriate partners. Moreover, collaboration and license arrangements are complex and time-consuming to negotiate, document, implement and maintain. We may not be successful in our efforts to establish and implement such arrangements should we so chose to enter into them. The terms of any collaborations, licenses or other arrangements that we may establish may not be favorable to us.

Any future collaboration or license arrangements that we enter into may not be successful. The success of such arrangements will depend heavily on the efforts and activities of our partners. Collaboration and license arrangements are subject to numerous risks, which may include risks that:

- partners have significant discretion in determining the efforts and resources that they will apply to collaborations;
- a partner with marketing, manufacturing and distribution rights to one or more products may not commit sufficient resources to or otherwise not perform satisfactorily in carrying out these activities;
- partners may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- collaboration and license arrangements may be terminated, and, if terminated, this may result in a need for additional capital to pursue further development or commercialization of the applicable current or future product candidates;
- partners may own or co-own intellectual property covering products that results from our collaborating with them, and in such cases, we would not have the exclusive right to develop or commercialize such intellectual property;

- disputes may arise with respect to the ownership of any intellectual property developed pursuant to our collaboration or license arrangements; and
- a partner's sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings.

Risks Related to Our Intellectual Property Rights

If we are unable to adequately protect our proprietary technology, or obtain and maintain issued patents that are sufficient to protect our product candidates, others could compete against us more directly, which would have a material adverse impact on our business, prospects, financial condition and results of operations.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection in the United States and other countries for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, should they issue, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties. We strive to protect and enhance the proprietary technologies that we believe are important to our business, including seeking patents intended to cover our products and compositions, their methods of use and any other inventions that are important to the development of our business.

As of February 28, 2019, we had 10 issued U.S. patents, 23 pending U.S. patent applications, seven pending Patent Cooperation Treaty, or PCT, applications, and numerous foreign patents and pending patent applications. Our issued U.S. and foreign patents covering olinciguat expire between 2031 and 2034 and our issued U.S. and foreign patents covering praliciguat also expire between 2031 and 2034, in each case subject to patent term extensions. We have no issued patents covering IW-6463, and our pending patent applications relating to IW-6463, if issued, will expire in 2037 or later. See "Business—Intellectual Property." We also rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

The patent positions of biotechnology and pharmaceutical companies, including ours, involve complex legal and factual questions, which in recent years have been the subject of much litigation, and, therefore, the issuance, scope, validity, enforceability and commercial value of any patent claims that we may obtain cannot be predicted with certainty. Our pending patent applications may not be granted as issued patents in any particular jurisdiction and, even if they do, these patents may not include claims with a scope sufficient to protect our product candidates or otherwise provide any competitive advantage.

Even if our patent applications are issued, competitors and other third parties may infringe, misappropriate or otherwise violate our patents and other intellectual property rights. We may not be able to prevent infringement, misappropriation or other violations of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming and divert the attention of our management and key personnel from our business operations

Moreover, our patents, if issued, may be challenged, deemed unenforceable, invalidated or circumvented in the United States and abroad. U.S. patents and patent applications may also be subject to interference, derivation, *ex parte* reexamination, post-grant review, or *inter partes* review proceedings, supplemental examination and challenges in district court. Interference proceedings provoked by third parties or brought by us may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our involvement in litigation or interference proceedings may fail and, even if successful, may result in substantial costs,

and distract our management and other employees. Furthermore, an adverse decision in an interference or derivation proceeding can result in a third party receiving the patent right sought by us, which in turn could affect our ability to develop, market or otherwise commercialize our product candidates.

Patents may also be subjected to opposition, post-grant review or comparable proceedings lodged in various foreign, both national and regional, patent offices or courts. Such proceedings could result in revocation or amendment of our patents in such a way that they no longer cover our product candidates or competitive products. In addition, such proceedings may be costly. Thus, any patents, should they issue, that we may own or exclusively license may not provide any protection against competitors.

Furthermore, though a patent, if it were to issue, is presumed valid and enforceable, its issuance is not conclusive as to its validity or its enforceability and it may not provide us with adequate protection to exclude competitors from making similar products. Even if a patent issues and is held to be valid and enforceable, competitors may be able to design around or circumvent our patents, such as by using pre-existing or newly developed technology or products in a non-infringing manner. If these developments were to occur, they could have a material adverse effect on our business, prospects, financial condition and results of operations.

Any litigation to enforce or defend our patent rights, even if we were to prevail, would be costly and time-consuming and would divert the attention of our management and key personnel from our business operations. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded if we were to prevail may not be commercially meaningful.

In addition, proceedings to enforce or defend our patents, if and when issued, puts our patents at risk of being invalidated, held unenforceable or not infringed, or interpreted narrowly. Such proceedings could also provoke third parties to assert counterclaims against us, including that some or all of the claims in one or more of our patents are invalid, not infringed or unenforceable. Grounds for a validity challenge include alleged failures to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for unenforceability assertions of a patent include allegations that someone connected with prosecution of the patent application that matured into the patent withheld relevant information from the U.S. Patent and Trademark Office, or the USPTO, or made a misleading statement, during prosecution of the patent application. In an infringement proceeding, a court may disagree with our allegations and refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question, or may decide that a patent of ours is invalid or unenforceable. An adverse result in any litigation, defense or post-grant proceedings could result in one or more of our patents being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it would have a material adverse effect on the price of our common stock.

The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates.

If any of our patents, if and when issued, covering our product candidates are invalidated or found not infringed or unenforceable, our business, prospects, financial condition and results of operations could be materially harmed.

We may infringe the intellectual property rights of others, which may prevent or delay our product development efforts and stop us from commercializing or increase the costs of commercializing our product candidates, if approved.

Our success will depend in part on our ability to operate without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. Other parties may allege that our product candidates or the use of our technologies infringes or otherwise violates patent claims or other intellectual property rights held by them or that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to compositions, materials, formulations, methods of manufacture or methods for treatment related to our product candidates. Because patent applications can take many years to issue, third parties may have currently pending patent applications which may later result in issued patents that our product candidates may infringe, or which such third parties claim are infringed by our technologies.

The pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Patent and other types of intellectual property litigation can involve complex factual and legal questions, and their outcome is uncertain and cannot be adequately quantified in advance. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our product candidates, products or methods either does not infringe the patent claims of the relevant patent or that the patent claims are invalid or unenforceable, and we may not be able to do this. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on our business and operating results. In addition, we may not have sufficient resources to bring these actions to a successful conclusion.

If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court, or redesign our products. In addition, if any such claim were successfully asserted against us and we could not obtain such a license, we may be forced to stop or delay developing, manufacturing, selling or otherwise commercializing our product candidates. Any claim relating to intellectual property infringement that is successfully asserted against us may require us to pay substantial damages, including treble damages and attorney's fees if we are found to be willfully infringing another party's patents, for past use of the asserted intellectual property and royalties and other consideration going forward if we are forced to take a license.

Any of these risks coming to fruition could have a material adverse effect on our business, prospects, financial condition and results of operations.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. We also enter into employment agreements with employees. We seek to have inventions assigned to us by the person rendering services. However, we may not be able to enter into these agreements will all parties or these agreements may not be honored and may not effectively assign intellectual property rights to us.

Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions over the lifetime of our owned patents and applications. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors or other third parties might be able to enter the market earlier than would otherwise have been the case and this circumstance could have a material adverse effect on our business, prospects, financial condition and results of operations.

We may not seek to protect our intellectual property rights in all jurisdictions throughout the world and we may not be able to adequately enforce our intellectual property rights even in the jurisdictions where we seek protection.

The statutory deadlines for pursuing patent protection in individual foreign jurisdictions are based on the priority date of each of our patent applications and we may not timely file foreign patent applications. Thus, for each of the patent families that we believe provide coverage for our product candidates, we will need to decide whether and where to pursue protection outside the United States. Filing and prosecuting patent applications, and defending patents on product candidates in all countries and jurisdictions throughout the world would be prohibitively expensive, and so we are unlikely to pursue and maintain patents in all countries worldwide. As such, competitors may use our technologies in jurisdictions where we do not pursue and obtain patent protection to develop their own products.

The laws of some foreign countries may not protect intellectual property rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States even if we have a patent in that jurisdiction. Further, a competitor may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Even if we pursue and obtain issued patents in particular jurisdictions, our patent claims or other intellectual property rights may not be effective or sufficient to prevent third parties from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biotechnology or pharmaceuticals. This could make it difficult for us to stop the infringement of our patents, if obtained, or the misappropriation of or marketing of competing products in violation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of

being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

If we do not obtain additional protection under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, and similar foreign legislation by extending the patent terms and obtaining data exclusivity for our product candidates, our business, prospects, financial condition and results of operations may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of our product candidates, one or more of the U.S. patents we own may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent term extension as compensation for patent term lost during the FDA regulatory review process. A maximum of five years can be restored to the eligible patent. In all cases, the total patent life for the product with the patent extension cannot exceed 14 years from the product's approval date, or in other words, 14 years of potential marketing time. However, we may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain a patent term extension or the term of any such extension is less than we request, the duration of patent protection we obtain for our product candidates may not provide us with any meaningful commercial or competitive advantage, our competitors may obtain approval of competing products earlier than they would otherwise be able to do so, and our ability to generate revenues could be harmed.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biotechnology companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biotechnology industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation: the Leahy-Smith America Invents Act. The America Invents Act includes a number of significant changes to U.S. patent law. These provisions affect the way patent applications will be prosecuted and may also affect patent litigation. It is not yet clear what, if any, impact the America Invents Act will have on the operation of our business. However, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any patents that may issue from our patent applications, all of which could have a material adverse effect on our business, prospects, financial condition and results of operations.

In addition to increasing uncertainty with regard to our ability to obtain future patents, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on these and other decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce any patents that may issue in the future.

We may be subject to damages resulting from claims that we or our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers.

Our employees may have been previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We also engage advisors and consultants who are concurrently employed at universities or who perform services for other entities.

Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, and although we are not aware of any claims currently pending against us, we may be subject to claims that we or our employees, advisors or consultants have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third party. We may be subject to claims that an employee, advisor or consultant performed work for us that conflicts with that person's obligations to a third party, such as an employer, and thus, that the third party has an ownership interest in the intellectual property arising out of work performed for us. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. If we fail in defending such claims, in addition to paying money claims, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our product candidates, which would materially harm our commercial development efforts.

Risks Related to the Future Commercialization of Our Product Candidates

The incidence and prevalence for target patient populations of our product candidates have not been established with precision. If the market opportunities for our product candidates are smaller than we estimate, or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability may be harmed.

The incidence and prevalence for all the conditions we aim to address with our programs are unknown. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are based on beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific literature, surveys of clinics, patient foundations or market research, and may prove to be incorrect. Further, new trials may change the estimated incidence or prevalence of these diseases. The total addressable market across all of our product candidates will ultimately depend upon, among other things, the diagnosis criteria included in the final label for each of our product candidates, if approved for sale for these indications, acceptance by the medical community and patient access, drug pricing and reimbursement. The number of patients in the United States and other major markets and elsewhere may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our products or new patients may become increasingly difficult to identify or gain access to, all of which would harm our results of operations and our business. Further, even if we obtain significant market share for our product candidates, because the potential target populations are very small, we may never achieve profitability despite obtaining such significant market share.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market any product candidates, if approved, we may not be successful in commercializing those product candidates if and when they are approved.

We do not currently have an infrastructure for the sale, marketing, market access, patient service and distribution of pharmaceutical products. In order to market our product candidates, if approved by the FDA or any other regulatory authority outside the United States, we must build our sales, marketing, managerial and other non-technical capabilities, or arrange with third parties to perform

these services. There are risks involved with both establishing our own commercial capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force or reimbursement specialists is expensive and time-consuming and could delay any product candidate launch. If commercialization is delayed or does not occur, we would have prematurely or unnecessarily incurred such expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our commercialization personnel.

If we enter into arrangements with third parties to perform sales, marketing, commercial support and distribution services, our product revenue or the profitability of product revenue may be lower than if we were to market and sell any products we may develop ourselves. In addition, we may fail to enter into arrangements with third parties to commercialize our product candidates or may be unable to do so on terms that are favorable to us. We may have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish commercialization capabilities successfully, either on our own or in collaboration with third parties, or if we are unable to do so on commercially reasonable terms, we will not be successful in commercializing our product candidates if approved and our business, prospects, financial condition and results of operations will be materially harmed.

Even if we obtain regulatory approval for our product candidates, our product candidates may not achieve broad market acceptance by patients, physicians, healthcare payors or others in the medical community, which would limit the revenue that we generate from their sales.

The future commercial success of our product candidates, if approved by the FDA or other applicable regulatory authorities outside the United States, will depend upon the awareness and acceptance of our product candidates among the medical community, including patients, physicians and healthcare payors. If any of our product candidates are approved but do not achieve an adequate level of acceptance by patients, physicians, healthcare payors and others in the medical community, we may not generate sufficient revenue to become, or remain, profitable. Market acceptance of our product candidates, if approved, will depend on a number of factors, including, among others:

- the efficacy and safety of our approved product candidates as demonstrated in clinical trials;
- the clinical indications for which our product candidates are approved;
- limitations or warnings contained in the labeling approved for our product candidates by the FDA or other applicable regulatory authorities;
- any restrictions on the use of our products together with other medications or restrictions on the use of our products in certain types of patients;
- the prevalence and severity of any adverse effects associated with our product candidates;
- the size of the target patient population, and the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the safety, efficacy, cost and other potential advantages of our approved product candidates compared to other available therapies;
- our ability to generate cost effectiveness data that supports a profitable price;
- our ability to obtain sufficient reimbursement and pricing by third-party payors and government authorities;
- the willingness of patients to pay out-of-pocket in the absence of sufficient payor coverage.
- the effectiveness of our sales and marketing strategies; or
- publicity concerning our products or competing products and treatments.

If our product candidates are approved but do not achieve an adequate level of acceptance by patients, physicians and payors, we may not generate sufficient revenue from our product candidates to become or remain profitable. Before granting reimbursement approval, healthcare payors may require us to demonstrate that our product candidates, in addition to treating these target indications, also provide incremental health benefits to patients. Our efforts to educate the medical community and third-party payors about the benefits of our product candidates may require significant resources and may never be successful.

Reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell our products profitably. Price controls may be imposed in foreign markets, which may harm our future profitability.

Market acceptance and sales of any approved product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors and government authorities and may be affected by existing and future health care reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will pay for and establish reimbursement levels. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is: a covered benefit under its health plan; safe, effective and medically necessary; appropriate for the specific patient; cost-effective; and neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to the payor. We or our partners may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. We cannot be sure that coverage or adequate reimbursement will be available for any of our product candidates. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our products. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize certain of our products. In addition, in the United States, third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement of new drugs. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly approved drugs, which in turn will put pressure on the pricing of drugs.

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we or our partners may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed.

If we fail to comply with healthcare and other regulations, we could face substantial penalties and our business, prospects, financial condition and results of operations could be harmed.

The product candidates that we are evaluating in clinical studies are subject to certain federal and state healthcare laws and regulations that may affect our business. These laws and regulations include:

- federal healthcare program anti-kickback laws, which prohibit, among other things, persons from offering, soliciting, receiving or providing remuneration, directly or indirectly, as an inducement or reward for their past, current or potential future prescribing, purchase, use, recommending for use, referral, formulary placement, or dispensing of our products;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters and which also imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information;

- the Federal Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug product and medical device research, development, and marketing, prohibits manufacturers from marketing or promoting such products prior to approval; and

- state law equivalents of the above federal laws, such as anti-kickback laws, state transparency laws, state laws limiting interactions between pharmaceutical manufacturers and members of the healthcare industry and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by federal laws, thus complicating compliance efforts.

In addition, we may be subject to privacy and security laws in the various jurisdictions in which we operate, obtain or store personally identifiable information. For example, if we conduct clinical studies in any of the member states of the European Union, the processing of personal data in the European Economic Area, or the EEA, is subject to the 1995 Data Protection Directive, imposing strict obligations and restrictions on the ability to collect, analyze and transfer personal data. In May 2018, the General Data Protection Regulation, or the GDPR, took effect, increasing our obligations with respect to clinical studies conducted in the EEA and increasing the scrutiny applied by clinical study sites located in the EEA to transfers of personal data from such sites to countries that are considered by the European Commission to lack an adequate level of data protection, such as the United States. The compliance obligations imposed by the GDPR may increase our cost of doing business. In addition, the GDPR imposes substantial fines for breaches of data protection requirements, and it confers a private right of action on data subjects for breaches of data protection requirements.

If our operations are found to be in violation of any of the laws described above or any other laws, rules or regulations that apply to us, we will be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could impede our ability to operate our business and our financial results. Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, rules or regulations, we cannot be certain that this will address all areas of potential exposure and the risks in this area cannot be entirely eliminated, particularly because the requirements and government interpretations of the requirements in this space are constantly evolving. Any action against us for violation of these laws, rules or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business, as well as damage our business or reputation. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security, fraud and reporting laws may prove costly.

We face significant competition in an environment of rapid technological and scientific change, and our competitors may achieve regulatory approval before us or develop therapies that are safer, more advanced or more effective than ours, which may harm our ability to successfully market or commercialize any product candidates we may develop and ultimately harm our financial condition.

Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the design, development and commercialization of our product candidates. Our objective is to design, develop and commercialize new products with superior efficacy, safety, tolerability and convenience. In many cases, our product candidates that we commercialize will compete with existing, market-leading products. The development and commercialization of new drug products is highly competitive. We may face competition with respect to any product candidates that we seek to develop or commercialize in the future from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Bayer and Merck, or Bayer/Merck, have an active collaboration on sGC and may be targeting some of the same indications through a similar mechanism of action with one sGC stimulator, ADEMPAS® (riociguat), which has been approved for the treatment of Pulmonary Arterial Hypertension, or PAH, and Chronic Thromboembolic Pulmonary Hypertension, or CTEPH. Bayer/Merck are also evaluating sGC product candidates in a number of indications, including vericiguat for the treatment of heart failure. Such sGC products may compete directly with our own product candidates in our target indications. Because Bayer/Merck already have experience conducting successful clinical trials and obtaining regulatory approvals for an sGC product, they may be able to conduct clinical trials and obtain regulatory approvals for additional product candidates and target indications more quickly or efficiently than we can.

Furthermore, we are aware of a number of other approved products and late-stage product candidates for the treatment of our target indications. Two products have been approved to reduce the acute complications of SCD, such as painful crises, hydroxyurea (marketed as DROXIA® or SIKLOS®, as well as other generic forms) and ENDARI®, and Novartis, Global Blood Therapeutics, Imara, Pfizer, AstraZeneca, Micelle BioPharma, CRISPR Therapeutics/Vertex Pharmaceuticals and bluebird bio each have product candidates in various stages of clinical development for the treatment of SCD, any of which may compete with olinciguat, if approved. Similarly, three products have been approved for the treatment of DN, including AVAPRO®, CAPOTEN® and COZAAR®, and we are aware of late-stage clinical trials being conducted by Eli Lilly/Boehringer Injelheim, AstraZeneca, Janssen and Bayer for the treatment of DN that might compete with praliciguat, if approved. Similarly, Novartis, Bayer/Merck, AstraZeneca and Eli Lilly/Boehringer Ingelheim each have product candidates in late-stage clinical trials for the treatment HFpEF, any of which may also compete with praliciguat, if approved. If our product candidates do not obtain regulatory approvals in our target indications prior to these or any other competing product candidates, or if our product candidates do not demonstrate superior efficacy, safety or tolerability compared to these and any other approved therapeutics for our target indications, we may not be able to compete effectively.

Many of our current or potential competitors, either alone or with their strategic partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical studies, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or

other regulatory approval for their products more rapidly than we may obtain approval for ours and may obtain orphan product exclusivity from the FDA for indications our product candidates are targeting, which could result in our competitors establishing a strong market position before we are able to enter the market.

In addition, we could face litigation or other proceedings with respect to the scope, ownership, validity and/or enforceability of our patents relating to our competitors' products and our competitors may allege that our products infringe, misappropriate or otherwise violate their intellectual property. The availability of our competitors' products could limit the demand, and the price we are able to charge, for any products that we may develop and commercialize. See "—Risks Related to Our Intellectual Property Rights."

The impact of healthcare reform and other governmental and private payor initiatives may harm our business.

Our revenue prospects could be affected by changes in healthcare spending and policy in the United States and abroad. We operate in a highly regulated industry and new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to health care availability, the method of delivery or payment for health care products and services could harm our business, operations and financial condition. There is significant interest in promoting health care reform, as evidenced by the enactment in the United States of the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act in 2010. It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing health care legislation. We cannot predict the reform initiatives that may be adopted in the future or whether initiatives that have been adopted will be repealed or modified. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect: the demand for any drug products for which we may obtain regulatory approval; our ability to set a price that we believe is fair for our products; our ability to obtain coverage and reimbursement approval for a product; our ability to generate revenues and achieve or maintain profitability; and the level of taxes that we are required to pay.

Our future growth may depend, in part, on our ability to commercialize our product candidates outside the United States, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future profitability may depend, in part, on our ability to commercialize our product candidates outside the United States for which we may rely on partnerships with third parties. If we commercialize our product candidates outside the United States, we would be subject to additional risks and uncertainties, including:

- our customers' ability to obtain reimbursement for our product candidates outside the United States;
- our ability to gain reimbursement in foreign markets at a price that is profitable;
- our inability to directly control commercial activities because we are relying on third parties;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- import or export licensing requirements;
- longer accounts receivable collection times;

- longer lead times for shipping;
- language barriers for technical training;
- reduced protection of intellectual property rights in some foreign countries;
- the existence of additional potentially relevant third-party intellectual property rights;
- foreign currency exchange rate fluctuations; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

Foreign sales of our product candidates could also be harmed by the imposition of governmental controls, political and economic instability, trade restrictions and changes in tariffs.

In light of the large population of patients with SCD who reside in foreign countries, our ability to generate meaningful revenues in those jurisdictions may be limited due to the strict price controls and reimbursement limitations imposed by governments outside of the United States.

In some countries, particularly in the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a drug. To obtain coverage and reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies, or to meet other criteria for pricing approval. Given the significant portion of the population of patients with SCD who reside outside of the United States, if reimbursement of olinciguat, if approved, is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business, prospects, financial condition and results of operations could be harmed.

If any of our product candidates obtain regulatory approval, additional competitors could enter the market with generic versions of such drugs, which may result in a material decline in sales of affected products.

Under the Hatch-Waxman Act, a pharmaceutical manufacturer may file an abbreviated new drug application, or an ANDA, seeking approval of a generic copy of an approved, small-molecule innovator product. Under the Hatch-Waxman Act, a manufacturer may also submit an NDA that references the FDA's prior approval of the small-molecule innovator product. The Hatch-Waxman Act also provides for certain periods of regulatory exclusivity. These include, subject to certain exceptions, the period during which an FDA-approved drug is subject to orphan drug exclusivity. In addition to the benefits of regulatory exclusivity, an innovator NDA holder may have patents claiming the active ingredient, product formulation or an approved use of the drug, which would be listed with the product in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," known as the "Orange Book." If there are patents listed in the Orange Book, a generic or NDA applicant that seeks to market its product before expiration of the patents must include in the ANDA a "Paragraph IV certification," challenging the validity or enforceability of, or claiming non-infringement of, the listed patent or patents.

Accordingly, if any of our product candidates are approved, competitors could file ANDAs for generic versions of our small-molecule drug products or NDAs that reference our small-molecule drug products, respectively. If there are patents listed for our small-molecule drug products in the Orange Book, those ANDAs and NDAs would be required to include a certification as to each listed patent indicating whether the ANDA applicant does or does not intend to challenge the patent. We cannot predict which, if any, patents in our current portfolio or patents we may obtain in the future will be eligible for listing in the Orange Book, how any generic competitor would address such patents, whether we would sue on any such patents, or the outcome of any such suit.

We may not be successful in securing or maintaining proprietary patent protection for products and technologies we develop or license. Moreover, if any of our patents that are listed in the Orange Book are successfully challenged by way of a Paragraph IV certification and subsequent litigation, the affected product could immediately face generic competition and its sales would likely decline rapidly and materially.

Risks Related to Our Business Operations

Our prospects for success depend on our ability to retain our management team and to attract, retain and motivate qualified personnel.

We are highly dependent on our management, scientific and medical personnel, including our Chief Executive Officer, Peter M. Hecht, Ph.D., our President, Mark Currie and our Chief Financial Officer, William Huyett. Despite our efforts to retain valuable employees, members of our management, scientific and development teams may terminate their employment with us on short notice. The loss of the services of any of our executive officers, other key employees and other scientific and medical advisors and an inability to find suitable replacements could result in delays in product development and harm our business. Pursuant to their employment arrangements, each of our executive officers, and other employees may voluntarily terminate their employment at any time, with or without notice. Our success also depends on our ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel.

We may not be able to attract or retain qualified management and scientific personnel in the future due to the intense competition for a limited number of qualified personnel among biopharmaceutical, biotechnology, pharmaceutical and other businesses. Many of the other pharmaceutical companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high quality candidates than what we may be able to offer. We also experience competition for the hiring of scientific personnel from universities and research institutions. The failure to succeed in preclinical or clinical studies may make it more challenging to recruit and retain qualified personnel. In addition, in order to induce employees to continue their employment with us, we have provided equity awards that vest over time and the value to our employees of such equity awards may be significantly affected by movements in our stock price that are beyond our control and may be at any time insufficient to counteract more lucrative offers from other companies. If we are unable to continue to attract and retain high quality personnel, the rate and success at which we can develop and commercialize product candidates will be limited.

We will need to expand our organization and we may experience difficulties in managing this growth, which could disrupt our operations.

As of February 28, 2019, we had 140 full-time employees. As we mature, we expect to expand our full-time employee base and to hire more consultants and contractors. Our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenues could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to

commercialize product candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth.

We face potential product liability exposure, and, if claims are brought against us, we may incur substantial liability.

The use of our product candidates in clinical studies and the sale of our products, if approved, exposes us to the risk of product liability claims. Product liability claims might be brought against us by patients, healthcare providers or others selling or otherwise coming into contact with our product candidates. For example, we may be sued if any product candidate we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, including as a result of interactions with alcohol or other drugs, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we become subject to product liability claims and cannot successfully defend ourselves against them, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in, among other things: withdrawal of subjects from our clinical studies; substantial monetary awards to patients or other claimants; decreased demand for our product candidates or any future product candidates following marketing approval, if obtained; damage to our reputation and exposure to adverse publicity; increased FDA warnings on product labels; litigation costs; distraction of management's attention from our primary business; loss of potential revenue; and the inability to successfully commercialize our product candidates or any future product candidates, if approved.

We maintain product liability insurance coverage for our clinical studies through both domestic and international insurance policies, subject to an annual coverage limit. Nevertheless, our insurance coverage may be insufficient to reimburse us for any expenses or losses we may suffer if a judgment or settlement exceeds available insurance proceeds. Moreover, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses, including if insurance coverage becomes increasingly expensive. If and when we obtain marketing approval for our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may not be able to obtain this product liability insurance on commercially reasonable terms. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. The cost of any product liability litigation or other proceedings, even if resolved in our favor, could be substantial, particularly in light of the size of our business and financial resources. A product liability claim or series of claims brought against us could cause our stock price to decline and, if we are unsuccessful in defending such a claim or claims and the resulting judgments exceed our insurance coverage, our business, prospects, financial condition and results of operations could be materially harmed.

During the course of treatment, patients may suffer adverse events, including death, for reasons that may or may not be related to our product candidates. Such events could subject us to costly litigation, require us to pay substantial amounts of money to injured patients, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market our product candidates, if approved, or require us to suspend or abandon our commercialization efforts of any approved product candidates. Even in a circumstance in which we do not believe that an adverse event is related to our products, the investigation into the circumstance may be time-consuming or inconclusive. These investigations may interrupt our sales efforts, delay our regulatory approval process, or impact and limit the type of regulatory approvals our product candidates receive or maintain. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on our business, prospects, financial condition and results of operations.

We will incur increased costs as a result of operating as a public company. If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could result in sanctions or other penalties that would harm our business.

Following the distribution, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the rules and regulations of The Nasdaq Global Market. Our financial results historically were included within the consolidated results of Ironwood, and until the distribution occurs, we have not been and will not be directly subject to reporting and other requirements of the Exchange Act and Section 404 of the Sarbanes-Oxley Act. After the distribution, we will qualify as an "emerging growth company" and a "smaller reporting company." For so long as we remain an emerging growth company, we will be exempt from Section 404(b) of the Sarbanes-Oxley Act, which requires auditor attestation to the effectiveness of internal control over financial reporting. We will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total gross annual revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the distribution; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. Even after we no longer qualify as an emerging growth company, we may still qualify as a smaller reporting company, which would allow us to take advantage of many of the same exemptions from disclosure requirements, including exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this information statement and our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on the exemptions available to us as an emerging growth company and/or smaller reporting company. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will, however, be subject to Section 404(a) of the Sarbanes-Oxley Act beginning with our first Annual Report on Form 10-K following the separation which requires, among other things, annual management assessments of the effectiveness of our internal control over financial reporting beginning in our second annual report filed after the distribution. As of the expiration of our emerging growth company status and smaller reporting company status, we will be broadly subject to enhanced reporting and other requirements under the Exchange Act and Sarbanes-Oxley Act. This will require, among other things, annual management assessments of the effectiveness of our internal control over financial reporting and a report by our independent registered public accounting firm addressing these assessments. These and other obligations will place significant demands on our management, administrative and operational resources, including accounting and information technology resources. To comply with these requirements, we anticipate that we will need to further upgrade our systems, including duplicating computer hardware infrastructure, implement additional financial and management controls, reporting systems and procedures and hire additional accounting, finance and information technology staff. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costlier. If we are unable to do this in a timely and effective fashion, our ability to comply with our financial reporting requirements and other rules that apply to reporting companies could be impaired and our business, prospects, financial condition and results of operations could be harmed.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls over financial reporting, we may not be able to produce timely and accurate financial statements. If that were to happen, our investors could lose confidence in our reported financial information, the market price of our stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities.

Unfavorable global economic conditions could harm our business, prospects, financial condition and results of operations.

Our results of operations could be harmed by general conditions in the global economy and in the global financial markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business, prospects, financial condition and results of operations.

Our internal computer systems, or those of our third-party CROs, CMOs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product candidates' development programs.

Despite the implementation of security measures, our internal computer systems and those of our third-party CROs, CMOs, business development partners and other contractors and consultants may be vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our programs. For example, the loss of clinical study data for our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our product candidates could be delayed. While we have secured insurance to cover remediation activities associated with a computer virus, threat, malicious malware and other such incidents along with lost income, the adequacy of this insurance, may not be adequate to fully cover costs to restore data and resume normal working operations, which could harm our business, prospects, financial condition and results of operation.

Our employees may engage in misconduct or other improper activities, including violating applicable regulatory standards and requirements or engaging in insider trading, which could significantly harm our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with the regulations of the FDA and applicable foreign regulators, provide accurate information to the FDA and applicable foreign regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately and/or disclose unauthorized activities to us. In particular, research and development, sales, marketing and business arrangements in the healthcare industry are subject to considerable laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations restrict, regulate or prohibit a wide range of activities pertaining to clinical trials including the informed consent process, data integrity and conducting the study in accordance with the investigational plan, and for approved products, pricing,

discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of, including trading on, information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. Prior to effecting the distribution, we will adopt code of conduct, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may be ineffective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions, possible exclusions from participation in Medicare, Medicaid and other U.S. federal healthcare programs, contractual damages and reputational harm.

If we or any contract manufacturers and suppliers we engage fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We and any contract manufacturers and suppliers we engage are subject to numerous federal, state and local environmental, health and safety laws, regulations and permitting requirements, including those governing laboratory procedures; the generation, handling, use, storage, treatment and disposal of hazardous and regulated materials and wastes; the emission and discharge of hazardous materials into the ground, air and water; and employee health and safety. Under certain environmental laws, we could be held responsible for costs relating to any contamination at our current or past facilities and at third-party facilities. We also could incur significant costs associated with civil or criminal fines and penalties.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, or the FCPA, and other worldwide anti-bribery laws.

We are subject to the FCPA, which prohibits U.S. corporations and their representatives from offering, promising, authorizing or making payments to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business abroad. The scope of the FCPA includes interactions with certain healthcare professionals in many countries. Other countries have enacted similar anti-corruption laws and/or regulations. In some countries in which we operate, the pharmaceutical and life sciences industries are exposed to a high risk of corruption associated with the conduct of clinical trials and other interactions with healthcare professionals and institutions. While we intend to conduct any foreign operations in compliance with the FCPA, any such activities could expose us to potential liability under the FCPA, which may result in us incurring significant criminal and civil penalties and to potential liability under the anti-corruption laws and regulations of other jurisdictions in which we operate. In addition, the costs we may incur in defending against an FCPA investigation could be significant.

Risks Related to the Separation and the Private Placement

We may not achieve some or all of the expected benefits of the separation, and the separation could harm our business, prospects, financial condition and results of operations.

We may not be able to achieve some or all of the anticipated strategic, financial, operational, marketing or other benefits expected to result from the separation, or such benefits may be delayed or not occur at all. These actions may not provide the benefits we currently expect, and could lead to disruption of our operations, loss of or inability to recruit, key personnel needed to operate and grow our businesses following the separation, weakening of our internal standards, controls or procedures and impairment of our key collaborations and supplier relationships. In addition, completion of the

separation has and will continue to require significant amounts of management's time and effort, which may divert management's attention from operating and growing our businesses.

By separating from Ironwood, we may become more susceptible to market fluctuations and other adverse events than we would have been if we were still a part of the current Ironwood organizational structure. As part of Ironwood, we have been able to benefit from Ironwood's experience and expertise as a commercial-stage company developing multiple products, and opportunities to pursue integrated strategies with Ironwood's other business activities. We have also benefited from Ironwood's strategic advantages as an established market participant, including its improved negotiating power and historical partnerships. Additionally, as part of Ironwood, we benefited from Ironwood's market reputation, historical performance and brand identity when operating our business. As a newly formed, independent, publicly traded company, we will not have, and may never develop, a comparable market reputation, performance or brand identity of our own, which may limit our ability to recruit and retain personnel, pursue and negotiate strategic transactions, and access the capital markets to finance our operations. If we fail to achieve some or all of the benefits that we expect to achieve as an independent company, or do not achieve them in the time we expect, our business, prospects, financial condition and results of operations may be materially harmed.

We may be unable to make, on a timely or cost-effective basis, the changes necessary to operate as an independent company, and we will be reliant on Ironwood for a period of time.

We have historically operated as part of Ironwood's corporate organization, and Ironwood has assisted us by providing various corporate and other business functions. Following the separation, Ironwood will have no obligation to assist our operations or growth strategy, other than providing certain services or rights pursuant to agreements described under "Certain Relationships and Related Person Transactions—Agreements with Ironwood."

For a period of time following the separation, we will be substantially reliant on Ironwood to provide these limited services, and if Ironwood is unable or unwilling to satisfy its obligations under these agreements, we could incur operational difficulties or losses that could have a material and adverse effect on our business, prospects, financial condition and results of operations.

Furthermore, the services to be provided by Ironwood under these agreements do not include every service or all of the information and technology systems that we have received from Ironwood in the past or that are necessary to successfully operate our business, and Ironwood is only obligated to provide these services for limited periods of time from the distribution date. Accordingly, following the separation, we will need to develop internal capabilities to perform these services, or obtain from other third parties services we currently receive from Ironwood. If we are unable to efficiently implement our own systems and services, or if we are unable to negotiate agreements with third-party providers of these services in a timely manner or on terms and conditions as favorable as those we receive from Ironwood, we may not be able to operate our business effectively and our financial condition may decline. Furthermore, if we fail to develop high-quality internal capabilities, or obtain comparable services from third-party providers, in a cost-effective manner, we may be unable to operate our existing business or execute our strategic priorities successfully and efficiently, and our operating results and financial condition may be materially harmed.

In addition, we intend to enter into an intellectual property license agreement with Ironwood prior to the separation pursuant to which, in part, Ironwood will grant us a license to use certain Ironwood know-how in connection with our research and development of sGC stimulator products. If we were to use such licensed know-how and if our rights under the intellectual property license agreement were challenged by a third party or we were otherwise prevented from exercising our rights as contemplated under the intellectual property license agreement, our research and development activities could be

delayed until we were able to either resume exercising such rights or develop or acquire adequate alternative know-how.

We have no history of operating as an independent company and we expect to incur increased administrative and other costs following the separation by virtue of our status as an independent public company. Our historical and pro forma financial information is not necessarily representative of the results that we would have achieved as a separate, publicly traded company and should not be relied upon as an indicator of our future results.

Our historical information provided in this information statement refers to our business as operated by and integrated with Ironwood. Our historical and pro forma financial information included in this information statement is derived from the consolidated financial statements and accounting records of Ironwood. Accordingly, the historical and pro forma financial information included in this information statement may not reflect the operating results, financial condition or cash flows that we would have achieved as a separate, publicly traded company during the periods presented, or the financial results we will achieve in the future. In particular, our future financial results may vary from the historical and pro forma financial information included in this information statement as a result of the following factors, among others:

- our historical combined financial data does not reflect the separation;
- our historical financial data reflects expense allocations for certain business and support functions that are provided on a centralized basis within Ironwood, such as expenses for research and development and corporate administrative services, including information technology, finance, legal, insurance, compliance and human resources activities, that may be lower than the comparable expenses we would have actually incurred, or will incur in the future, as a standalone company;
- our capital structure will be different from that reflected in our historical combined financial statements;
- significant increases may occur in our cost structure as a result of becoming a standalone public company, including costs related to public company reporting, investor relations and compliance with the Sarbanes-Oxley Act; and
- the separation may have a material effect on our relationships with our suppliers, collaborators and other business relationships.

Our financial condition and future results of operations, after giving effect to the separation, will be materially different from amounts reflected in our historical financial statements included elsewhere in this information statement. As a result of the separation, it may be difficult for investors to compare our future results to historical results or to evaluate our relative performance or trends in our business.

The separation may impede our ability to attract and retain key personnel, which could materially harm our business.

Our success depends in large part upon the leadership and performance of our management team and other key employees. Operating as an independent company will demand a significant amount of time and effort from our management and other employees and may give rise to increased employee turnover. If we lose the services of members of our management team or other key employees, we may not be able to successfully manage our business or achieve our business objectives.

Following the separation, we will need to continue to attract and retain qualified key personnel in a highly competitive environment. Our ability to attract, recruit and retain such talent will depend on a number of factors, including the hiring practices of our competitors, the performance of our

development programs, our compensation and benefits, work location and work environment and economic conditions affecting our industry generally. If we cannot effectively hire and retain qualified employees, our business, prospects, financial condition and results of operations could suffer.

The separation may result in disruptions to, and harm our relationships with, our strategic business partners.

Uncertainty related to the separation may lead the suppliers, research organizations, and other parties with which we currently do business or may do business in the future to terminate or attempt to negotiate changes in our existing business relationships, or cause them to delay entering into business relationships with us or consider entering into business relationships with parties other than us. These disruptions could have a material and adverse effect on our business, prospects, financial condition and results of operations. The effect of such disruptions could be exacerbated by any delays in the completion of the separation.

If the distribution, together with certain related transactions, does not qualify as a transaction that is tax-free for U.S. federal income tax purposes, Ironwood and its stockholders could be subject to significant tax liabilities, and we could be required to indemnify Ironwood for material taxes pursuant to indemnification obligations under the tax matters agreement.

Ironwood has received a favorable private letter ruling from the IRS under the pilot program established in Revenue Procedure 2017-52 relating to the U.S. federal income tax treatment of the distribution. Consistent with the guidelines set forth in Revenue Procedure 2017-52, the IRS private letter ruling does not cover all of the issues that are relevant to determining whether the distribution is generally tax free for U.S. federal income tax purposes, including whether the distribution (i) satisfies the business purpose requirement in Section 1.355-2(b) of the Treasury Regulations, (ii) is used principally as a device for the distribution of the earnings and profits of Ironwood or Cyclerion or both or (iii) is part of a plan (or series of related transactions) pursuant to which one or more persons will acquire directly or indirectly stock representing a 50-percent or greater interest in Ironwood or Cyclerion, or any predecessor, within the meaning of Section 1.355-8T of the Treasury Regulations. Accordingly, it is a condition to the distribution that Ironwood receive an opinion of KPMG LLP, satisfactory to Ironwood's board of directors, confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code. Any opinion of KPMG LLP will be and the IRS private letter ruling is based, among other things, on various facts and assumptions, as well as certain representations, statements and undertakings from us and Ironwood (including those relating to the past and future conduct of us and Ironwood). If any of these facts, assumptions, representations, statements or undertakings is, or becomes, inaccurate or incomplete, or if we or Ironwood breach any of our respective covenants relating to the separation, the IRS private letter ruling and any tax opinion may be invalid. Accordingly, notwithstanding receipt of the IRS private letter ruling and an opinion of KPMG LLP, the IRS could determine that the distribution and certain related transactions should be treated as taxable transactions for U.S. federal income tax purposes if it determines that any of the facts, assumptions, representations, statements or undertakings that were included in the request for the IRS private letter ruling or on which any such opinion was based are false or have been violated. In addition, an opinion of KPMG LLP represents the judgment of KPMG LLP, which is not binding on the IRS or any court. Accordingly, notwithstanding receipt by Ironwood of the tax opinion and the IRS private letter ruling referred to above, the IRS could assert that the distribution and/or certain related transactions do not qualify for tax-free treatment for U.S. federal income tax purposes.

If the distribution, together with certain related transactions, fails to qualify as a transaction that is generally tax-free under Sections 355 and 368(a)(1)(D) of the Code, in general, for U.S. federal income tax purposes, Ironwood would recognize taxable gain with respect to our distributed common stock and Ironwood stockholders who receive shares of our common stock in the distribution would be subject to

tax as if they had received a taxable distribution equal to the fair market value of such shares. For more information, see "Material U.S. Federal Income Tax Consequences of the Distribution."

Even if the distribution were otherwise to qualify as tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code, it may result in taxable gain to Ironwood under Section 355(e) of the Code if the distribution were deemed to be part of a plan (or series of related transactions) pursuant to which one or more persons acquire, directly or indirectly, shares representing a 50% or greater interest (by vote or value) in Ironwood or Cyclerion. Under the terms of the common stock purchase agreement, the investors in the private placement will acquire up to 46% of Cyclerion's common stock on a basic shares outstanding method (which is the percentage likely to be used for purposes of this test). For purposes of this test, the private placement will generally be treated as part of such a plan or series of transactions, although some portion of the private placement may be excluded from such treatment if investors who owned shares of Ironwood common stock immediately prior to the distribution participate in the private placement to maintain their respective ownership held immediately prior to the private placement. Nonetheless, the rules governing such exclusions are complex, and there can be no assurance given as to the amount or percentage of the private placement that will be excluded from such treatment under these rules. Thus, a relatively minor additional change in the ownership of the Cyclerion common stock (or, prior to the distribution, in the Ironwood common stock) could trigger a prohibited change in control, resulting in a significant amount of taxable gain for Ironwood under Section 355 of the Code (as a result of which Cyclerion would be required to indemnify Ironwood under the tax matters agreement, as discussed below), if that additional ownership change and the portion of the private placement that must be taken into account were each considered to be part of a plan or series of related transactions that included the distribution and, in the aggregate, resulted in a 50% or greater change in ownership of Cyclerion common stock, as determined under the Code and applicable Treasury regulations. The process for determining whether a prohibited change in control has occurred under the rules is complex, inherently factual and subject to interpretation of the facts and circumstances of a particular case. If Cyclerion or Ironwood does not carefully monitor its compliance with these rules, it might inadvertently cause or permit a prohibited change in the ownership of Cyclerion or of Ironwood to occur. Furthermore, sales and/or acquisitions by the investors in the private placement (or by other persons) of Cyclerion or Ironwood common stock after completion of the distribution (or Ironwood common stock before the distribution) could potentially trigger a prohibited change of control in Cyclerion or Ironwood. For purposes of these rules, any acquisitions of Ironwood or Cyclerion shares within the period beginning two years before the distribution and ending two years after the distribution are presumed to be part of such a plan, although Ironwood or Cyclerion may be able to rebut that presumption based on the facts or circumstances or under regulatory safe harbors.

In connection with the distribution, Cyclerion and Ironwood will enter into a tax matters agreement pursuant to which Cyclerion will be responsible for certain liabilities and obligations following the distribution. In general, under the terms of the tax matters agreement, if the distribution, together with certain related transactions, were to fail to qualify as a transaction that is generally tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code, and if and to the extent that such failure results from a prohibited change of control in Ironwood under Section 355(e) of the Code or an acquisition of shares of Ironwood common stock or assets or certain actions by Ironwood, then Ironwood will bear any resulting taxes, interest, penalties and other costs. If and to the extent that such failure results from a prohibited change of control in Cyclerion under Section 355(e) of the Code or an acquisition of Cyclerion stock or assets or certain actions by Cyclerion, then Cyclerion will indemnify Ironwood for any resulting taxes, interest, penalties and other costs, including any reductions in Ironwood's net operating loss carryforwards or other tax assets. If such failure does not result from a prohibited change of control in Ironwood or Cyclerion under Section 355(e) of the Code and both Cyclerion and Ironwood are responsible for such failure, liability will be shared according to relative fault. If neither Cyclerion nor Ironwood is responsible for such

failure, Ironwood will bear any resulting taxes, interest, penalties and other costs. For a discussion of the tax matters agreement, see "Certain Relationships and Related Person Transactions—Agreements with Ironwood—Tax Matters Agreement." The indemnification obligations of Cyclerion to Ironwood under the tax matters agreement are not expected to be limited in amount or subject to any cap. If Cyclerion is required to pay any taxes or indemnify Ironwood and its subsidiaries and their respective officers and directors under the circumstances set forth in the tax matters agreement, Cyclerion may be subject to substantial liabilities.

We may not be able to engage in attractive strategic or capital-raising transactions following the separation.

To preserve the tax-free treatment of the separation and the distribution for U.S. federal income tax purposes, for the four-year period beginning two years before and ending two years after the distribution, we will be prohibited under the tax matters agreement, except in specific circumstances, from: (i) entering into or approving any transaction involving the acquisition of outstanding or newly issued Cyclerion equity that, when combined with other changes in ownership of Cyclerion capital stock, results in a change in ownership of 40% or more; (ii) liquidating or partially liquidating, or merging or consolidating (unless Cyclerion is the survivor); (iii) making or changing any entity classification election; (iv) ceasing to be engaged in an active trade or business, or selling, transferring or disposing of 30% or more of the assets of any active trade or business; (v) amending any Cyclerion organizational documents or taking any action affecting the voting rights of Cyclerion capital stock; (vi) redeeming or otherwise repurchasing any of Cyclerion's outstanding stock or options; or (vii) taking or failing to take any other action that would prevent the distribution and certain related transactions from qualifying as a transaction that is generally tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1) (D) of the Code. These restrictions may limit for a period of time our ability to pursue certain strategic transactions, equity issuances or repurchases or other transactions that we may believe to be in the best interests of our shareholders or that might increase the value of our business. For more information, see "Certain Relationships and Related Person Transactions—Agreements with Ironwood—Tax Matters Agreement."

In connection with the separation, we will assume and agree to indemnify Ironwood for certain liabilities. If we are required to make payments pursuant to these indemnities to Ironwood, we may need to divert cash to meet those obligations and our financial results could be harmed.

Pursuant to the separation agreement and certain other agreements we intend to enter into with Ironwood, we will assume and agree to indemnify Ironwood for certain liabilities for uncapped amounts, which may include, among other items, associated defense costs, settlement amounts and judgments, as discussed further in "Certain Relationships and Related Person Transactions—Agreements with Ironwood" and "Index to Financial Statements—Audited Combined Financial Statements—Notes to Combined Financial Statements." Payments pursuant to these indemnities may be significant and could harm our business, particularly indemnities relating to our actions that could impact the tax-free nature of the distribution and certain related transactions. Third parties could also seek to hold us responsible for any of the liabilities of the Ironwood business. Ironwood will agree to indemnify us for liabilities of the Ironwood business, but such indemnity from Ironwood may not be sufficient to protect us against the full amount of such liabilities, and Ironwood may not fully satisfy its indemnification obligations. Moreover, even if we ultimately succeed in recovering from Ironwood any amounts for which we are held liable, we may be temporarily required to bear these losses ourselves. Each of these risks could harm our business, prospects, financial condition and results of operations.

Our agreements with Ironwood may not reflect terms that would have resulted from negotiations with unaffiliated third parties.

The agreements related to the separation, including, among others, the separation agreement, the employment matters agreement, the tax matters agreement, the intellectual property license agreement, the transition services agreements and the development agreement, will have been entered into in the context of the separation while we are still controlled by Ironwood. Until the distribution occurs, Ironwood will effectively have the sole and absolute discretion to determine and change the terms of the separation, including the terms of any agreements between Ironwood and us and the establishment of the record date and distribution date. As a result, any changes could be unfavorable to us and may not reflect terms that would have resulted from negotiations between unaffiliated third parties. In addition, Ironwood may decide at any time not to proceed with all or any part of the separation. For a more detailed description, see "Certain Relationships and Related Person Transactions—Agreements with Ironwood."

Certain of our directors and officers may have actual or potential conflicts of interest because of their former positions with Ironwood.

Certain of our directors and officers may own shares of Ironwood common stock or other equity awards as a result of their prior service as Ironwood directors or officers. For certain of these individuals, their holdings of Ironwood common stock or equity awards may be significant compared to their total assets. The ownership of any Ironwood equity or equity awards creates, or may create the appearance of, conflicts of interest when these directors or officers are faced with decisions that could have different implications for Ironwood than for us. Potential conflicts or the appearance of conflicts may also arise because Mark Currie, who is expected to be our President following the separation, is also expected to serve as a director on Ironwood's board of directors following the separation. These potential conflicts could arise, for example, over matters such as the desirability of changes in our business and operations, funding and capital matters, regulatory matters, matters arising with respect to the separation agreement and other agreements with Ironwood relating to the separation or otherwise, employee retention or recruiting, or our dividend policy.

If we and Ironwood's landlord are unable to reach an agreement for a direct lease and we are unable to enter into a sublease with Ironwood, we may need to find new space, which could be disruptive to our operations and result in increased expenses.

We are currently negotiating with Ironwood's landlord, BMR-Rogers Street LLC, or the Landlord, to enter into a direct lease for at least 10 years with respect to a portion of the facilities currently occupied by Ironwood. If we are unable to reach an agreement with the Landlord for a direct lease by the time of the separation or if we reach an agreement with the Landlord prior to the separation but the direct lease has not been finalized because required third-party consents are outstanding, we may need to enter into a sublease for this space or, if we are unable to enter into such a sublease, to lease suitable space in an alternative location. Our ability to lease a suitable alternative location on favorable terms would depend on many factors that are not within our control, such as the local real estate market and competition for desirable properties. Any relocation of our office and laboratory space may be disruptive to our business operations, result in increased expenses, hinder our ability to attract and retain qualified personnel or damage employee morale. Furthermore, even if we were to enter into a sublease or a direct lease, we may not be able to expand our facilities to additional space in the same building. As a result, the leased space may not be sufficient for our longer-term needs.

The combined post-separation value of Ironwood and our common stock may not equal or exceed the pre-separation value of Ironwood common stock.

As a result of the distribution, Ironwood expects the trading price of Ironwood common stock immediately following the distribution to be lower than the trading price of such common stock immediately prior to the distribution because the trading price will no longer reflect the value of our business held by Ironwood. Furthermore, following the distribution, the trading price of our common stock may not reflect the full value of our business and assets, due to market inefficiencies in the initial trading of our shares or variations in investor views regarding our business and prospects, among other market forces. The aggregate market value of Ironwood common stock and our common stock following the separation may be higher or lower than the market value of Ironwood common stock immediately prior to the separation, and may fluctuate, particularly during the period immediately following the distribution.

No vote of Ironwood stockholders is required in connection with this distribution. As a result, if the distribution occurs and you do not want to receive our common stock in the distribution, your sole recourse will be to divest yourself of your Ironwood common stock prior to the record date.

No vote of the Ironwood stockholders is required in connection with the distribution. Accordingly, if the distribution occurs and you do not want to receive our common stock in the distribution, your only recourse will be to divest yourself of your Ironwood common stock prior to the record date for the distribution.

Failure to complete the private placement could adversely impact the market price of our common stock as well as our business and operating results.

There can be no assurance that the private placement will be completed in a timely manner or at all. If the private placement is not completed for any reason, our business, prospects, financial condition and results of operations will be materially and adversely affected and we may be unable to continue to our business operations as currently conducted, or at all, since we will no longer have the ability to realize the potential benefits relating to the private placement, including, among other things, the receipt of the cash investment.

Risks Related to Ownership of Our Common Stock

There is no existing market for our shares of common stock and an active trading market may not develop for our shares. Once our shares of common stock begin trading, the market price of these shares may fluctuate widely.

There is currently no public market for our shares of common stock. It is anticipated that on or prior to the record date for the distribution, trading of our shares of common stock will begin on a "when issued" basis and will continue up to and including through the distribution date. On the first trading day following the distribution date, any "when issued" trading of our common stock would end and "regular way" trading would begin. However, there can be no assurance that an active trading market for our shares of common stock will develop as a result of the distribution or be sustained in the future.

We cannot predict the prices at which our shares of common stock may trade. The market price of our shares of common stock may fluctuate widely, depending upon many factors, some of which are beyond our control, including the following:

- a relatively low-volume trading market for our shares of common stock may result, which could cause trades of small blocks of shares to have a significant impact on the price of our shares of common stock;

- results and timing of preclinical studies and clinical studies of our product candidates;
- the commercial performance of our products, if approved, as well as the costs associated with such activities;
- results of clinical studies of our competitors' products;
- failure to adequately protect our trade secrets;
- our inability to raise additional capital and the terms on which we raise it;
- commencement or termination of any strategic partnership or licensing arrangement;
- regulatory developments with respect to our products or our competitors' products, including any developments, litigation or public concern about the safety of such products;
- announcements concerning product development results, including clinical trial results, the introduction of new products or intellectual property rights of us or others;
- actual or anticipated fluctuations in our financial condition and our quarterly and annual operating results;
- deviations in our operating results from any guidance we may provide or the estimates of securities analysts;
- additions and departures of key personnel;
- the passage of legislation or other regulatory developments affecting us or our industry;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- sales of our common stock by us, our insiders or our other shareholders;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- announcement or expectation of additional financing efforts;
- publication of research reports by securities analysts about us or our competitors or our industry and speculation regarding our company or our stock price in the financial or scientific press or in online investor communities;
- changes in market conditions in the pharmaceutical and biotechnology sector; and
- changes in general market and economic conditions.

In addition, if the market for stocks in our industry or industries related to our industry, or the stock market in general, experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations, financial condition and prospects. If any of the foregoing occurs, it could cause our stock price to fall and may expose us to lawsuits that, even if unsuccessful, could be costly to defend and a distraction to management.

Substantial sales of shares of our common stock may occur immediately following the distribution which could cause the market price of shares of our common stock to decline.

It is possible that many of Ironwood's stockholders will sell the shares of our common stock that they receive in the distribution immediately in the public market because our business profile or market capitalization does not fit their investment objectives, because the shares are not included in certain indices or for other reasons. The sale of significant amounts of our shares or the perception in the market that this will occur may result in the lowering of the market price of our shares. We can offer

no assurance that Ironwood's stockholders will continue to hold the shares they receive in the distribution.

If securities or industry analysts fail to initiate or maintain coverage of our stock, publish a negative report or change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us, our business, our market or our competitors. If securities or industry analysts fail to initiate coverage of our stock, the lack of exposure to the market could cause our stock price or trading volume to decline. If any of the analysts who cover us or may cover us in the future publish a negative report or change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who covers us or may cover us in the future were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Your percentage ownership in the company may be diluted in the future.

In the future, your percentage ownership in the company may be diluted because of equity issuances for acquisitions, capital market transactions or otherwise, including equity awards that we plan to grant to our directors, officers and employees. Such awards will have a dilutive effect on our earnings per share, which could adversely affect the market price of our common stock. From time to time, we expect to issue stock options or other share-based awards to employees under our employee benefits plans.

In connection with the distribution, Cyclerion has entered into a common stock purchase agreement pursuant to which, upon the completion of the distribution, certain investors will make an aggregate cash investment in Cyclerion of up to $175.0 million in exchange for newly issued shares of Cyclerion common stock. If the private placement is consummated, the ownership percentage of Cyclerion shareholders will be diluted as a result of the private placement.

In addition, our articles of organization will authorize us to issue, without the approval of our shareholders, one or more classes or series of preferred stock having such designation, powers, preferences and relative, participating, optional and other special rights, including preferences over our common stock with respect to dividends and distributions, as our board of directors may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. For example, we could grant the holders of preferred stock the right to elect some number of directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of the common stock. See "Description of Cyclerion's Capital Stock."

We do not expect to pay any cash dividends for the foreseeable future.

We do not anticipate that we will pay any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our operations. In addition, any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

We have adopted anti-takeover provisions in our articles of organization and bylaws and are subject to provisions of Massachusetts law that may frustrate any attempt to remove or replace our current board of directors or to effect a change of control or other business combination involving our company.

Our articles of organization and bylaws and certain provisions of Massachusetts law may discourage certain types of transactions involving an actual or potential change of control of our company that might be beneficial to us or our security holders. For example, our bylaws grant our directors the right to adjourn any meetings of shareholders. Our board of directors also may issue shares of any class or series of preferred stock in the future without shareholder approval and upon such terms as our board of directors may determine. The rights of the holders of our common stock will be subject to, and may be harmed by, the rights of the holders of any class or series of preferred stock that may be issued in the future. Massachusetts state law also prohibits us from engaging in specified business combinations unless the combination is approved or consummated in a prescribed manner. These provisions, alone or together, could delay hostile takeovers and changes in control of our company or changes in our management.

Our articles of organization designate the state and federal courts located within the Commonwealth of Massachusetts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders, which could discourage lawsuits against us and our directors and officers.

Our articles of organization designate the state and federal courts located within the Commonwealth of Massachusetts as the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our shareholders, creditors or other constituents, any action asserting a claim arising pursuant to any provision of the Massachusetts Business Corporation Act, or the MBCA, or any action asserting a claim governed by the internal affairs doctrine, in all cases subject to the court's having personal jurisdiction over the indispensable parties named as defendants. In additional, our articles of organization provide that unless our board of directors consents in writing to the selection of an alternative forum, the U.S. federal district courts shall be the exclusive forum for the resolutions of any complaint asserting a cause of action arising under the U.S. federal securities laws. This exclusive forum provision may limit the ability of our shareholders to bring a claim in a judicial forum that such shareholders find favorable for disputes with us or our directors or officers, which may discourage such lawsuits against the company and our directors and officers. Alternatively, if a court outside of Massachusetts were to find this exclusive forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings described above, we may incur additional costs associated with resolving such matters in other jurisdictions, which could harm our business, prospects, financial condition and results of operations.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This information statement and other materials we have filed or will file with the SEC include, or will include, forward-looking statements. All statements in this information statement, in other materials we have filed or will file with the SEC and in related comments by our management, other than statements of historical facts, including statements about future events, financing plans, future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations, are forward-looking statements that involve certain risks and uncertainties. Use of the words "may," "will," "would," "could," "should," "believes," "estimates," "projects," "potential," "expects," "plans," "seeks," "intends," "evaluates," "pursues," "anticipates," "continues," "designs," "impacts," "affects," "forecasts," "target," "outlook," "initiative," "objective," "designed," "priorities," "goal" or the negative of those words or other similar expressions may identify forward-looking statements that represent our current judgment about possible future events, but the absence of these words does not necessarily mean that a statement is not forward-looking.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, by their nature, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. As a result, our actual results may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include regional, national or global political, economic, business, competitive, market and regulatory conditions and the following:

- the completion and timing of the separation, the business and operations of Cyclerion following the separation and any benefits or costs of the separation, including the tax treatment;
- our post-separation relationships with Ironwood, third parties, collaborators and our employees;
- our ability to operate as a standalone company and execute our strategic priorities;
- our ability to finance our operations and business initiatives and obtain funding for such activities;
- the timing, investment and associated activities involved in developing, obtaining regulatory approval for, launching and commercializing our product candidates, including olinciguat, praliciguat and IW-6463;
- our plans with respect to the development, manufacture or sale of our product candidates and the associated timing thereof, including the design and results of pre-clinical and clinical studies;
- the safety profile and related adverse events of our product candidates;
- the efficacy and perceived therapeutic benefits of our product candidates and the potential indications and market opportunities therefor;
- U.S. and foreign regulatory requirements for our product candidates, including any post-approval development and regulatory requirements, and the ability of our product candidates to meet such requirements;
- our ability to attract and retain key employees needed to execute our business plans and strategies and our expectations regarding our ability to manage the impact of any loss of key employees;
- our ability to obtain and maintain intellectual property protection for our product candidates and the strength thereof;

- our future financial performance, revenues, expense levels, payments, cash flows, profitability, tax obligations, capital raising and liquidity sources, real estate needs and concentration of voting control, as well as the timing and drivers thereof, and internal control over financial reporting;
- our ability to compete with other companies that are or may be developing or selling products that are competitive with our product candidates;
- the status of government regulation in the life sciences industry, particularly with respect to healthcare reform;
- potential indemnification liabilities Cyclerion may owe to Ironwood after the separation;
- our expectations with respect to our office and laboratory space, including the terms of a direct lease with the Landlord or a possible sublease with Ironwood;
- the tax treatment of the distribution and the limitations imposed on Cyclerion under the tax matters agreement that Cyclerion will enter into with Ironwood; and
- trends and challenges in our potential markets.

See "Risk Factors" for a further description of these and other factors. Although we have attempted to identify important risk factors, there may be other risk factors not presently known to us or that we presently believe are not material that could cause actual results and developments to differ materially from those made in or suggested by the forward-looking statements contained in this information statement. If any of these risks materialize, or if any of the assumptions underlying forward-looking statements prove incorrect, actual results and developments may differ materially from those made in or suggested by the forward-looking statements contained in this information statement. For the reasons described above, we caution you against relying on any forward-looking statements, which should also be read in conjunction with the other cautionary statements that are included elsewhere in this information statement. Any forward-looking statement made by us in this information statement speaks only as of the date thereof. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update or to revise any forward-looking statement, whether as a result of new information, future developments, or otherwise, except as may be required by law.

DIVIDEND POLICY

We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be made at the discretion of our board of directors and will depend on various factors, including applicable laws, our results of operations, financial condition, future prospects and any other factors deemed relevant by our board of directors.

CAPITALIZATION

The following table sets forth Cyclerion's capitalization as of December 31, 2018 on a historical basis and on a pro forma basis to give effect to the pro forma adjustments included in Cyclerion's unaudited pro forma combined financial information. The information below is not necessarily indicative of what Cyclerion's capitalization would have been had the separation, distribution and related financing transactions been completed as of December 31, 2018. In addition, it is not indicative of Cyclerion's future capitalization. This table should be read in conjunction with "Unaudited Pro Forma Combined Financial Statements," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Summary Historical and Unaudited Pro Forma Combined Financial Information" and the audited and unaudited combined financial statements and corresponding notes included elsewhere in this information statement.

	As of December 31, 2018 (unaudited)	
(In thousands)	Actual	Pro Forma
Cash and cash equivalents	$ —	$ 165,000
Debt:		
Long-term debt	$ —	$ —
Total debt	$ —	$ —
Equity:		
Common stock	$ —	$ 27
Net parent investment	$ (10,445)	$ —
Additional paid-in capital	$ —	$ 160,956
Total Capitalization	$ (10,445)	$ 160,983

UNAUDITED PRO FORMA COMBINED FINANCIAL STATEMENTS

The unaudited pro forma combined financial data of Cyclerion consists of an unaudited pro forma combined statement of income for the year ended December 31, 2018 and an unaudited pro forma combined balance sheet as of December 31, 2018 prepared in accordance with United States generally accepted accounting principles, or U.S. GAAP. The unaudited pro forma combined financial data reported below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Summary Historical and Unaudited Pro Forma Combined Financial Information" and the audited and unaudited combined financial statements and corresponding notes included elsewhere in this information statement.

The following unaudited pro forma combined financial data is subject to assumptions and adjustments described in the accompanying notes. Cyclerion's management believes these assumptions and adjustments are reasonable under the circumstances and given the information available at this time. However, these adjustments are subject to change as Ironwood and Cyclerion finalize the terms of the separation, including the separation agreement and related transaction agreements. The unaudited pro forma combined financial data does not purport to represent what Cyclerion's financial position and results of operations actually would have been had the separation occurred on the dates indicated, or to project Cyclerion's financial performance for any future period following the separation.

The unaudited pro forma combined financial data as of and for the year ended December 31, 2018 gives effect to the separation as if it had occurred on January 1, 2018. The unaudited pro forma combined financial data includes adjustments to reflect the following:

- the contribution by Ironwood to Cyclerion, pursuant to the separation agreement, of all the assets and liabilities that comprise Cyclerion's business;
- the expected transfer to Cyclerion, upon completion of the separation of certain assets and liabilities that were not included in Cyclerion's historical combined financial statements;
- the impact of the separation agreement, tax matters agreement, employee matters agreement, development agreement, intellectual property license agreement, transition services agreements and other commercial agreements between Cyclerion and Ironwood; and
- the expected receipt of $165.0 million net proceeds from the anticipated issuance and sale of 11,755,624 shares of Cyclerion's common stock in the private placement pursuant to the terms of the purchase agreement.

Cyclerion's historical financial information, which was the basis for the unaudited pro forma combined financial statements, was prepared on a carve-out basis as Cyclerion was not operated as a separate, independent company for the periods presented. Accordingly, such historical financial information reflects an allocation for certain business and support functions that are provided on a centralized basis within Ironwood, such as expenses for research and development and corporate administrative services, including information technology, finance, legal, insurance, compliance and human resources activities. These historical allocations may not be indicative of Cyclerion's future cost structure; however, the pro forma results have not been adjusted to reflect any potential changes associated with Cyclerion being an independent public company as such amounts are estimates that are not factually supportable.

Ironwood incurred approximately $22.9 million of one-time separation costs in connection with the separation during 2018, including costs related to consulting, legal, auditing and information technology, of which $8.0 million was allocated to Cyclerion. Cyclerion is expected to incur one-time transaction costs of approximately $10.0 million related to the separation after it is completed.

Cyclerion Therapeutics, Inc.

Unaudited Pro Forma Combined Statement of Operations

Year Ended December 31, 2018

(in thousands)

	Historical	Pro forma Adjustments	Notes	Adjusted
Cost and expenses:			[A, B]	
Research and development	$ 87,716			$ 87,716
General and administrative	27,536	309	[A]	27,845
Total cost and expenses	115,252			115,561
Loss from operations	(115,252)			(115,561)
Net loss	$ (115,252)			$ (115,561)
Unaudited Pro Forma Earnings Per Share				
Basic and Diluted	N/A		[C,D]	$ (4.23)
Average Number of Shares Used in Calculating				
Basic and Diluted	N/A		[C,D]	27,304

See Notes to Unaudited Pro forma Combined Financial Data

Cyclerion Therapeutics, Inc.

Unaudited Pro Forma Combined Balance Sheet

As of December 31, 2018

(in thousands)

	Historical	Pro forma Adjustments	Notes	Adjusted
ASSETS			[A]	
Current assets:				
Cash and cash equivalents	$ —	165,000	[E]	$ 165,000
Prepaid expenses	867			867
Other current assets	12			12
Total current assets	879			165,879
Property and equipment, net	6,497	3,647	[A]	10,144
Other assets	25			25
Total assets	$ 7,401			$ 176,048
Current liabilities:			[A, B]	
Accounts payable	$ 2,781	(2,781)	[A]	$ —
Accrued research and development costs	5,261			5,261
Accrued expenses and other current liabilities	9,804			9,804
Total current liabilities	17,846			15,065
Equity:				
Common Stock	N/A	27	[C, E]	27
Additional paid-in capital	N/A	160,956	[C, E]	160,956
Net parent investment	(10,445)	10,445	[A]	—
	(10,445)			160,983
Total liabilities and equity	$ 7,401			$ 176,048

See Notes to Unaudited Pro forma Combined Financial Data

Cyclerion Therapeutics, Inc.

Notes to Unaudited Pro Forma Combined Financial Data

(A) Reflects the impact of assets, liabilities and related expenses that we expect to assume from Ironwood that were not included in our unaudited combined financial statements. We anticipate assuming approximately $3.6 million of property, plant and equipment, net, primarily related to the assumption of a portion of Ironwood's former headquarters and anticipate accounts payable of $2.8 million not transferring to us from Ironwood, which resulted in a net increase in net parent investment. Depreciation expense associated with the transferred property, plant and equipment, net was $0.3 million for the year ended December 31, 2018. There may be additional assets, liabilities or related expenses transferred to us in the separation for which the transfer has not been finalized.

(B) Reflects the tax effects of the pro forma adjustments at the applicable effective income tax rate of zero for the year ended December 31, 2018. The effective tax rate of Cyclerion could be different (either higher or lower) depending on activities subsequent to the separation. The impact of pro forma adjustments on long-term deferred tax assets and liabilities were offset against existing long-term deferred tax assets and liabilities reflected in our historical combined balance sheet, all of which are offset by valuation allowance in full.

(C) The number of shares of Cyclerion common stock used to compute basic earnings per share is based on: (a) the number of shares of Cyclerion common stock assumed to be outstanding on the distribution date, after giving effect to the distribution, calculated based on 155,488,389 shares of Ironwood common stock outstanding on February 25, 2019, and a distribution ratio of one share of Cyclerion common stock for every 10 shares of Ironwood common stock, and (b) the anticipated issuance of 11,755,624 shares of Cyclerion common stock in the private placement, subject to a cap based on Cyclerion's outstanding common stock. The actual number of shares to be issued in the private placement will be determined by reference to the number of outstanding (a) shares of Cyclerion common stock, (b) Cyclerion restricted stock units and (c) options to purchase shares of Cyclerion common stock as of the closing of the private placement. This computation includes assumptions based on information available as of March 4, 2019 and is subject to potential adjustments relating to the trading price of Ironwood common stock during the 10 days prior to the distribution date and conditions on restricted stock units and options expected to be included in the employee matters agreement.

(D) The number of shares used to compute diluted earnings per share is based on the number of shares of common stock of Cyclerion as described in Note (C) above, plus incremental shares assuming exercise of dilutive options and restricted stock awards issued in connection with the separation. This calculation may not be indicative of the dilutive effect that will actually result from Cyclerion's share-based awards issued in connection with the adjustment of outstanding Ironwood share-based awards or the grant of new share-based awards. The number of dilutive shares of common stock underlying Cyclerion's share-based awards issued in connection with the adjustment of outstanding Ironwood share-based awards will not be determined until the distribution date or shortly thereafter.

(E) Amount reflects anticipated cash proceeds from the anticipated issuance and sale of shares of Cyclerion common stock in the private placement pursuant to the terms of the purchase agreement, after the payment of certain separation-related expenses. The shares issuable in the private placement are subject to a cap equal to 46% of the shares of Cyclerion common stock then outstanding (or a lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution), after giving effect to the issuance of shares in the private placement. In the event that the aggregate cash investment in the private placement would result in the issuance of shares of Cyclerion common stock in excess of this cap, each investor's cash investment in the private placement would be reduced, on a pro rata basis, by an amount needed to result in the issuance in the aggregate of no more than 46% of the shares of Cyclerion common stock then outstanding (or such lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution). See "Certain Relationships and Related Party Transactions—Private Placement." If such a reduction in the aggregate cash investment in the private placement were to occur, our cash and cash equivalents would be reduced by an equal amount.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with "Unaudited Pro Forma Combined Financial Statements," "Summary Historical and Unaudited Pro Forma Combined Financial Information" and the audited and unaudited combined financial statements and corresponding notes included elsewhere in this information statement. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, including those set forth under "Risk Factors" appearing elsewhere in this information statement, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a clinical-stage biopharmaceutical company harnessing the power of sGC pharmacology to discover, develop and commercialize breakthrough treatments for serious and orphan diseases. Our focus is enabling the full therapeutic potential of next-generation sGC stimulators. Our strategy rests on a solid scientific foundation that is enabled by our people and capabilities, external collaborations and a responsive capital allocation approach.

We operate in one reportable business segment—human therapeutics.

Separation from Ironwood Pharmaceuticals

In May 2018, Ironwood announced its plans to separate its sGC business from its commercial and gastrointestinal business through a pro rata distribution of Cyclerion common stock to stockholders of Ironwood. As a part of the separation, Ironwood intends to transfer the assets, liabilities and operations of its sGC stimulator and discovery research business to Cyclerion, pursuant to the terms of a separation agreement, to be entered into between Ironwood and Cyclerion. On the distribution date, each Ironwood stockholder will receive one share of Cyclerion's common stock for every 10 shares of Ironwood common stock held of record at the close of business on the record date for the distribution. Registered stockholders will receive cash in lieu of any fractional shares of Cyclerion's common stock that they would have received as a result of the application of the distribution ratio. Following the distribution, Cyclerion will operate as a separate, independent, publicly traded company. The distribution of Cyclerion common stock as described in this information statement is subject to the satisfaction or waiver by Ironwood of certain conditions. For a more detailed description of these conditions, see "The Separation and Distribution—Conditions to the Distribution."

Cyclerion's historical combined financial statements have been prepared on a stand-alone basis and are derived from Ironwood's combined financial statements and accounting records and are presented in conformity with U.S. GAAP. Cyclerion's financial position, results of operations and cash flows historically operated, and will continue to operate, as part of Ironwood's financial position, results of operations and cash flows prior to and until the distribution of Cyclerion's common stock to Ironwood's stockholders. These historical combined financial statements may not be indicative of Cyclerion's future performance and do not necessarily reflect what Cyclerion's combined results of operations, financial condition and cash flows would have been had Cyclerion operated as a separate, publicly traded company during the periods presented. Cyclerion expects that changes will occur in its operating structure and its capitalization as a result of the separation from Ironwood. See "The Separation and Distribution" for additional detail.

Financial Overview

Research and Development Expense. Research and development expense consists of expenses incurred in connection with the discovery and development of our product candidates. These expenses

consist primarily of compensation, benefits and other employee-related expenses, research and development related facility costs, third-party contract costs relating to nonclinical study and clinical trial activities. All research and development expenses are charged to operations as incurred.

The core of our research and development strategy is to harness the power of sGC pharmacology to develop therapies for serious and orphan diseases.

Olinciguat is an orally administered, once-daily, vascular sGC stimulator that is well suited for the potential treatment of SCD. We are conducting a Phase 2 study, STRONG-SCD, that is expected to enroll approximately 88 patients. During the periods presented, costs associated with olinciguat include clinical studies regarding achalasia.

In June 2018, the U.S. FDA granted Orphan Drug Designation to olinciguat for the treatment of patients with SCD. Orphan Drug Designation provides marketing exclusivity for seven years from the date of the product's approval for marketing, and contributes to a significant reduction in development costs.

Praliciguat is an orally administered, once-daily systemic sGC stimulator that is well suited for the potential treatment of serious cardiometabolic diseases given its very extensive distribution into tissues, particularly adipose, kidney, heart and liver. Praliciguat is currently in a dose-ranging Phase 2 study in approximately 150 adult patients with DN. Additionally, we initiated a clinical program in HFpEF. We are conducting a Phase 2 proof-of-concept trial, CAPACITY-HFpEF, in approximately 184 patients.

In September 2018, the U.S. FDA granted Fast Track Designation for praliciguat for the treatment of patients with HFpEF. A drug granted Fast Track Designation is eligible for several benefits, such as more frequent meetings with and communications from the FDA.

IW-6463 is an orally administered CNS-penetrant sGC stimulator that, because it readily crosses the blood-brain barrier, affords an unprecedented opportunity to expand the utility of sGC pharmacology to serious neurodegenerative diseases. In January 2019, we initiated our first-in-human study of IW-6463.

Discovery Research. Our discovery efforts are primarily focused on identifying, designing and developing sGC stimulators in serious and orphan diseases. sGC stimulation is a powerful mechanism that can broadly regulate blood flow, inflammation, fibrosis and metabolism. In diseases that are localized to specific organs or tissues, we believe that our organ-targeting strategy will maximize the efficacy of sGC pharmacology in key organs while reducing the potential for dose-limiting hemodynamic effects sometimes observed with sGC stimulation. Our initial focus is on the liver and the lung due to the clear role of nitric oxide signaling in diseases with high unmet need that affect these organs.

The following table sets forth our research and development expenses related to our product pipeline, as well as employee and facility related costs allocated to research and development expense, for the years ended December 31, 2017 and 2018. These product pipeline expenses relate primarily to

external costs associated with nonclinical studies and clinical trial costs, which are presented by development candidates.

	Year Ended December 31,	
	2017	2018
Development candidates:		
Praliciguat	$ 18,807	$ 18,375
Olinciguat	5,254	6,901
IW-6463	2,421	2,653
Discovery research	2,642	2,635
Total development candidates	29,124	30,564
Personnel and related costs	30,056	35,707
Facilities and others	19,623	21,445
Total research and development expenses	$ 78,803	$ 87,716

The lengthy process of securing regulatory approvals for new drugs requires the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining regulatory approvals would materially adversely affect our product development efforts and our business overall.

Given the inherent uncertainties that come with the development of pharmaceutical products, we cannot estimate with any degree of certainty how our programs will evolve, and therefore the amount of time or money that would be required to obtain regulatory approval to market them. As a result of these uncertainties surrounding the timing and outcome of any approvals, we are currently unable to estimate precisely when, if ever, our discovery and development candidates will be approved.

We invest carefully in our pipeline, and the commitment of funding for each subsequent stage of our development programs is dependent upon the receipt of clear, supportive data.

The successful development of our product candidates is highly uncertain and subject to a number of risks including, but not limited to:

- The duration of clinical trials may vary substantially according to the type and complexity of the product candidate and may take longer than expected.
- The FDA and comparable agencies in foreign countries impose substantial and varying requirements on the introduction of therapeutic pharmaceutical products, which typically require lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures.
- Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activity. Data obtained from these activities also are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval.
- The duration and cost of discovery, nonclinical studies and clinical trials may vary significantly over the life of a product candidate and are difficult to predict.
- The costs, timing and outcome of regulatory review of a product candidate may not be favorable, and, even if approved, a product may face post-approval development and regulatory requirements.
- The emergence of competing technologies and products and other adverse market developments may negatively impact us.

As a result of the factors discussed above, including the factors discussed under the "Risk Factors" section of this information statement, we are unable to determine the duration and costs to complete current or future nonclinical and clinical stages of our product candidates or when, or to what extent, we will generate revenues from the commercialization and sale of our product candidates. Development timelines, probability of success and development costs vary widely. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the data from the studies of each product candidate, the competitive landscape and ongoing assessments of such product candidate's commercial potential.

General and Administrative Expense. General and administrative expense consists primarily of compensation, benefits and other employee-related expenses for personnel in our administrative, finance, legal, information technology, business development, communications and human resource functions. Other costs include the legal costs of pursuing patent protection of our intellectual property, general and administrative related facility costs, insurance costs and professional fees for accounting and legal services. We record all general and administrative expenses as incurred.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our combined financial statements prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make certain estimates and assumptions that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the combined financial statements, and the amounts of expenses during the reported periods. Significant estimates and assumptions in our combined financial statements include those related to allocations of expenses, assets and liabilities from Ironwood's historical financials; impairment of long-lived assets; income taxes, including the valuation allowance for deferred tax assets; research and development expenses; contingencies and share-based compensation. We base our estimates on our historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from our estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

We believe that our application of the accounting policy noted below requires significant judgments and estimates on the part of management, and is the most critical to aid in fully understanding and evaluating our reported financial results. Our significant accounting policies are more fully described in Note 2, *Summary of Significant Accounting Policies*, to our combined financial statements appearing elsewhere in this information statement.

Research and Development Expense

All research and development expenses are expensed as incurred. We defer and capitalize nonrefundable advance payments we make for research and development activities until the related goods are received or the related services are performed. See Note 2, *Summary of Significant Accounting Policies*, of the combined financial statements appearing elsewhere in this information statement.

Results of Operations

Historically, our operations have been managed in the normal course of business as part of Ironwood. Accordingly, certain shared costs have been allocated to us and reflected as expenses in the stand-alone combined financial statements, as described in greater detail in the notes to the combined financial statements appearing elsewhere in this information statement. We considered the allocation methodologies used to be a reasonable and appropriate reflection of the historical Ironwood expenses

attributable to us for purposes of the stand-alone financial statements. The expenses reflected in the combined financial statements may not be indicative of expenses that will be incurred by us in the future. The following discussion summarizes the key factors we believed are necessary for an understanding of our combined financial statements.

Years ended December 31, 2016 compared to December 31, 2017

	Year Ended December 31,			
	2016	2017	Change	
	(in thousands)		$	%
Cost and expenses:				
Research and development	$ 50,903	$ 78,803	$ 27,900	55%
General and administrative	12,651	15,119	2,468	20%
Total cost and expenses	63,554	93,922	$ 30,368	48%
Loss from operations	(63,554)	(93,922)		
Net loss	$ (63,554)	$ (93,922)		

Research and Development Expense. The increase in research and development expense of approximately $27.9 million for the year ended December 31, 2017 compared to the year ended December 31, 2016 was primarily related to an increase of approximately $15.5 million in external research costs associated with clinical advancements for our product candidates, including costs associated with two Phase 2a studies of praliciguat; an increase of approximately $9.6 million in compensation, benefits and other employee-related expenses primarily associated with increased headcount; and an increase of approximately $1.8 million in operating costs, including facilities, allocated to research and development.

General and Administrative Expense. General and administrative expenses increased approximately $2.5 million for the year ended December 31, 2017 compared to the year ended December 31, 2016 primarily as a result of an increase in $1.4 million in compensation, benefits and other employee-related expenses and an increase of approximately $1.0 million in external consulting costs, recruiting costs and other professional service costs; offset by a decrease of approximately $0.2 million in costs related to facilities and information technology infrastructure.

Years ended December 31, 2017 compared to December 31, 2018

	Year Ended December 31,			
	2017	2018	Change	
	(in thousands)		$	%
Cost and expenses:				
Research and development	$ 78,803	$ 87,716	$ 8,913	11%
General and administrative	15,119	27,536	12,417	82%
Total cost and expenses	93,922	115,252	$ 21,330	23%
Loss from operations	(93,922)	(115,252)		
Net loss	$ (93,922)	$ (115,252)		

Research and Development Expense. The increase in research and development expense of approximately $8.9 million for the year ended December 31, 2018 compared to the year ended December 31, 2017 was primarily related to an increase of approximately $3.5 million in compensation, benefits and other employee-related expenses; an increase of approximately $2.6 million in operating

costs, including facilities, allocated to research and development, an increase of approximately $2.0 million related to workforce reduction charges associated with the initial organizational designs for the continuing Ironwood business and Cyclerion and an increase of approximately $0.3 million in external research costs associated with clinical advancements for our product candidates, including costs associated with initiation of STRONG-SCD, a Phase 2 clinical trial for olinciguat.

General and Administrative Expense. General and administrative expenses increased approximately $12.4 million for the year ended December 31, 2018 compared to the year ended December 31, 2017 primarily as a result of an increase of approximately $6.7 million related to legal and consulting costs associated with the Company's separation from Ironwood, an increase of approximately $4.0 million in compensation, benefits and other employee-related expenses, an increase of approximately $1.0 million related to recruiting costs and other professional service costs, an increase of approximately $0.3 million in costs related to workforce reduction allocated to general and administrative expenses, and an increase of approximately $0.3 million in costs related to facilities and information technology infrastructure.

Liquidity and Capital Resources

Historically, the primary source of liquidity for our business was cash flow allocated to Cyclerion from Ironwood. Prior to separation, transfers of cash to and from Ironwood have been reflected in Net Parent Investment in the historical combined balance sheets, statements of cash flows and statements of changes in Net Parent Investment. We have not reported cash or cash equivalents for the periods presented in the combined balance sheets. We expect Ironwood to continue to fund our cash needs through the date of the separation.

Upon completion of the separation and the closing of the private placement, we expect that our cash and cash equivalents will be approximately $165.0 million, which is equal to the aggregate cash investment in the private placement, after the payment of certain separation-related expenses. The shares issuable in the private placement are subject to a cap equal to 46% of the shares of Cyclerion common stock then outstanding (or a lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution), after giving effect to the issuance of shares in the private placement. In the event that the aggregate cash investment in the private placement would result in the issuance of shares of Cyclerion common stock in excess of this cap, each investor's cash investment in the private placement would be reduced, on a pro rata basis, by an amount needed to result in the issuance in the aggregate of no more than 46% of the shares of Cyclerion common stock then outstanding (or such lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution). See "Certain Relationships and Related Party Transactions—Private Placement." If such a reduction in the aggregate cash investment in the private placement were to occur, our cash and cash equivalents would be reduced by an equivalent amount. Subsequent to the separation, we will no longer participate in Ironwood's centralized cash management or benefit from direct funding from Ironwood. Our ability to fund our operations and capital needs will depend on our ongoing ability to generate cash from operations and access to capital markets and other sources of capital, as further described below. We anticipate that our principal uses of cash in the future will be primarily to fund our operations, working capital needs, capital expenditures and other general corporate purposes.

Going Concern

The financial statements have been prepared assuming that we will continue as a going concern. We have experienced negative cash flows from operations for all historical periods presented and expect these losses to continue into the foreseeable future as we begin to operate as a separate, publicly traded company and continue the development and clinical testing of our lead product candidates, olinciguat, praliciguat and IW-6463, as well as our discovery research programs for serious

and orphan liver and lung diseases. These conditions raise substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Cash Flows from Operating Activities

Net cash used in operating activities totaled approximately $97.5 million for the year ended December 31, 2018. The primary uses of cash were our net loss of $115.3 million and changes in assets of approximately $0.4 million resulting primarily from an increase in prepaid expenses and other current assets. These uses of cash were primarily offset by non-cash items of approximately $13.9 million, including approximately $12.4 million in share-based compensation expense and approximately $1.5 million in depreciation and amortization expense of property and equipment, and changes in liabilities of approximately $3.4 million resulting primarily from increases in accounts payable, accrued research and development costs, and accrued expenses and other current liabilities of approximately $1.0 million, $0.4 million and $2.0 million, respectively.

Net cash used in operating activities totaled approximately $81.2 million for the year ended December 31, 2017. The primary uses of cash were our net loss of $93.9 million and changes in assets of approximately $1.0 million resulting primarily from an increase in prepaid expenses. These uses of cash were primarily offset by non-cash expenses of approximately $11.2 million, including approximately $9.5 million in share-based compensation expense and approximately $1.7 million in depreciation and amortization expense of property and equipment, and changes in liabilities of approximately $2.5 million resulting primarily from increases in accounts payable and accrued research and development costs of approximately $0.4 million and approximately $2.7 million, respectively, offset by a decrease in accrued expenses and other current liabilities of approximately $0.6 million.

Cash Flows from Investing Activities

Cash used in investing activities for the years ended December 31, 2018 and December 31, 2017 totaled approximately $3.4 million and approximately $1.4 million, respectively, resulting primarily from the purchase of property and equipment, primarily laboratory equipment.

Cash Flows from Financing Activities

As Ironwood manages our cash and financing arrangements, all excess cash generated through earnings is deemed remitted to Ironwood and all sources of cash are deemed funded by Ironwood.

Cash provided by financing activities for the year ended December 31, 2018 was approximately $100.9 million, as compared to approximately $82.6 million for the year ended December 31, 2017, primarily as a result of cash transferred to us from Ironwood based on changes in our cash used for operations.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we advance the preclinical activities and clinical trials of our product candidates. In addition, following the distribution, we expect to incur additional costs associated with operating as a public company. Our expenses will also increase as we:

- leverage our programs to continue advancing our product candidates into preclinical and clinical development;
- seek regulatory approvals for any product candidates that successfully complete clinical trials;
- hire additional clinical, quality control and scientific personnel;

- expand our operational, financial and management systems and increase personnel, including personnel to support our clinical development and our operations as a public company; and

- maintain, expand and protect our intellectual property portfolio.

We believe that our initial cash capitalization, following the completion of the separation and the closing of the private placement will enable us to fund our operating expenses and capital expenditure requirements through the first quarter of 2021. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. See "Certain Relationships and Related Party Transactions—Private Placement."

Because of the numerous risks and uncertainties associated with research, development and commercialization of product candidates, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on, and could increase significantly as a result of, many factors, including:

- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical studies and clinical trials;

- the costs, timing and outcome of regulatory review of our product candidates;

- the costs of future activities, including medical affairs, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;

- the cost and timing of hiring new employees to support our continued growth;

- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and

- the timing, receipt and amount of sales of, or milestone payments related to or royalties on, our current or future product candidates, if any.

A change in the outcome of any of these or other variables with respect to the development of any of our product candidates could significantly change the costs and timing associated with the development of that product candidate. Further, our operating plans may change in the future, and we may need additional funds to meet operational needs and capital requirements associated with such operating plans.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances or licensing arrangements with third parties. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be materially diluted, and the terms of such securities could include liquidation or other preferences that adversely affect your rights as a common shareholder. Debt financing and preferred equity financing, if available, may involve agreements that include restrictive covenants that limit our ability to take specified actions, such as incurring additional debt, making capital expenditures or declaring dividends. In addition, debt financing would result in increased fixed payment obligations.

If we raise funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us.

If we are unable to raise additional funds when needed, we may be required to delay, reduce or eliminate our product development or future commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Commitments and Obligations

Tax-related Obligations

We exclude assets or liabilities or obligations pertaining to uncertain tax positions from our summary of contractual commitments and obligations as we cannot make a reliable estimate of the period of cash settlement with the respective taxing authorities. As of December 31, 2017 and 2018, we had no uncertain tax positions, as described more fully in Note 7, *Income Taxes*, of the combined financial statements appearing elsewhere in this information statement.

Other Funding Commitments

As of December 31, 2017 and 2018, we have several ongoing studies in various clinical trial stages. Our most significant clinical trial expenditures are to clinical research organizations, or CROs. The contracts with CROs generally are cancellable, with notice, at our option and do not have any significant cancellation penalties.

Transition from Ironwood and Costs to Operate as an Independent Company

The combined financial statements reflect our operating results and financial position as it was operated by Ironwood, rather than as an independent company. We will incur additional ongoing operating expenses to operate as an independent company. These costs will include the cost of various corporate headquarters functions, incremental information technology-related costs and incremental costs to operate stand-alone accounting, legal and other administrative functions. We will also incur non-recurring expenses and non-recurring capital expenditures.

As an independent company, our information technology operating costs may be higher than the costs allocated in the historical combined financial statements. In addition, we will incur non-recurring expenses and capital expenditures to establish independent information technology systems.

We are currently building our accounting and other administrative infrastructure. We expect to enter into a transition services agreement with Ironwood that will provide us with certain services and resources related to corporate functions for an initial term of between one to two years (as applicable). This transition services agreement will allow us to operate our business independently prior to establishing stand-alone infrastructure. During the transition from Ironwood, we will incur non-recurring expenses to expand its infrastructure.

It is not practicable to estimate the costs that would have been incurred in each of the periods presented in the historical financial statements for the functions described above. Actual costs that would have been incurred if we operated as a stand-alone company during these periods would have depended on various factors, including organizational design, outsourcing and other strategic decisions related to corporate functions, information technology and back office infrastructure.

Transactions with Related and Certain Other Parties

Prior to or concurrently with the distribution, we expect to enter into certain agreements with Ironwood resulting from and relating to the separation, including a separation agreement, two transition services agreements, a development agreement, a tax matters agreement, an intellectual property license agreement and an employee matters agreement. The terms of these agreements, including information on the business purpose of such agreements, transaction prices, related ongoing contractual commitments and any related special risks or contingencies are discussed in greater detail under "Certain Relationships and Related Party Transactions" appearing elsewhere in this information statement.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, that would have been established for the purpose of facilitating off-balance sheet arrangements (as that term is defined in Item 303(a)(4)(ii) of Regulation S-K) or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in those types of relationships. We enter into guarantees in the ordinary course of business related to the guarantee of our own performance.

New Accounting Pronouncements

For a discussion of new accounting pronouncements see Note 2, *Summary of Significant Accounting Policies*, of the combined financial statements appearing elsewhere in this information statement.

BUSINESS

Overview

We are a clinical-stage biopharmaceutical company harnessing the power of sGC pharmacology to discover, develop and commercialize breakthrough treatments for serious and orphan diseases. Our focus is enabling the full therapeutic potential of next-generation sGC stimulators. sGC stimulators are small molecules that act synergistically with nitric oxide on sGC to boost production of cGMP. cGMP is a key second messenger that, when produced by sGC, regulates diverse and critical biological functions throughout the body including blood flow and vascular dynamics, inflammatory and fibrotic processes, metabolism and neuronal function. We believe that the key to unlocking the full therapeutic potential of the nitric oxide-cGMP pathway is to design differentiated next-generation sGC stimulators that preferentially modulate pathway signaling in tissues of greatest relevance to the diseases they are developed to treat. This targeted approach is intended to maximize the potential benefits of nitric oxide-cGMP pathway stimulation in disease-relevant tissues. We are led by an accomplished team, many of whom have worked together previously at Ironwood, with an exceptional track record of discovering, developing and commercializing meaningful therapies for patients while creating value for stockholders. Our strategy rests on a solid scientific foundation that is enabled by our people and capabilities, external collaborations and a responsive capital allocation approach.

We have an extensive portfolio of five differentiated sGC stimulators with several pipeline catalysts expected in 2019. The following table summarizes our programs:

Status of selected key development programs as of March 4, 2019. Represents current phase of development, does not correspond to the completion of a particular phase.

Strategic Core

We leverage the therapeutic potential of nitric oxide signaling by modulating the nitric oxide-cGMP pathway via pharmacologically tailored sGC stimulation. Nitric oxide signaling plays a central role in regulating diverse aspects of human physiology throughout the body, including vascular smooth muscle tone and blood flow, as well as processes that influence inflammation, fibrosis, metabolism and neuronal function. Deficient nitric oxide signaling is linked to a wide range of cardiovascular, metabolic, inflammatory, fibrotic and neurological diseases. Stimulation of sGC is clinically validated by ADEMPAS®, an sGC stimulator marketed by Bayer, that represents an important first step in demonstrating the therapeutic potential of this mechanism. In order to realize the significant potential of sGC stimulation to enable the development of important new medicines, we are focused on developing next generation sGC stimulators.

We design sGC stimulators with distinct pharmacologic and biodistribution properties that preferentially enhance nitric oxide-cGMP signaling in target tissues of greatest relevance to the diseases they are developed to treat. The resulting sGC stimulators are highly differentiated from each other, as well as from other sGC modulators and molecules that target this pathway via other mechanisms. This approach to the therapeutic application of nitric oxide-cGMP pharmacology is intended to allow us to harness the powerful multidimensional pharmacology of sGC stimulation for clinical application in serious and orphan diseases.

We have discovered and are advancing a pipeline of five differentiated sGC stimulator programs whose properties are tailored for distinct serious and orphan diseases with significant unmet clinical need.

- ***Olinciguat is an orally administered, once-daily, vascular sGC stimulator*** that we believe is well suited for the treatment of SCD, given its distribution to the vasculature and highly perfused organs, such as the kidney and lungs, which are frequently affected by this disease. SCD is a genetic disease that causes red blood cells to "sickle," or become misshapen, and to more easily rupture, ultimately resulting in severe complications including chronic vascular inflammation, painful VOCs, poor blood flow to organs, pulmonary hypertension and renal failure. Patients with SCD have a shortened life expectancy, with an average of 42 years for males and 48 years for females in the United States. SCD affects approximately 100,000 people in the United States and approximately 50,000 in the EU5, or France, Germany, Italy, Spain and the United Kingdom. The global incidence of SCD is estimated to affect approximately 300,000 children born annually. By amplifying nitric oxide signaling, we believe that olinciguat has the potential to reduce the proportion of sickled cells, decrease vascular inflammation and cell adhesion, and improve nitric oxide-mediated vasodilation. For patients with SCD, we believe this may translate into reduction in debilitating daily symptoms such as chronic pain and fatigue, decrease in anemia, reduction in painful VOCs and end-organ protection (especially for the kidney, heart and lung) potentially leading to an increase in survival. Olinciguat has been granted Orphan Drug Designation for SCD by the FDA, and is currently in a Phase 2 study, STRONG-SCD, that is expected to enroll approximately 88 patients. Following the completion of our ongoing Phase 2 study, should data warrant, we intend to advance olinciguat into late-stage development for SCD and, if approved, commercialize on our own in the United States and alone or through licensing arrangements with partners around the world. We expect results from this study in the second half of 2019.

- ***Praliciguat is an orally administered, once-daily systemic sGC stimulator*** that we believe is well suited for the treatment of serious cardiometabolic diseases given its very extensive distribution into tissues, particularly adipose, kidney, heart and liver. We believe this distribution profile is essential to realize the potential of sGC pathway pharmacology to treat cardiometabolic diseases that are characterized by adipose inflammation, metabolic dysfunction and associated multi-organ etiology and involvement. We are assessing the potential of praliciguat to treat two such diseases: DN and HFpEF.

  There are over 400 million adults with diabetes globally at a prevalence rate of 8.5%. Up to 40% of all patients with diabetes have DN. In patients with diabetes, nephropathy is a major risk factor for cardiovascular disease, the major driver of excess cardiovascular mortality, and the single strongest predictor of mortality. DN is progressive, and patients that survive to end-stage renal disease, or ESRD, require chronic dialysis treatment or kidney transplant. We believe praliciguat may help treat DN by enhancing renal endothelial function and blood flow regulation and attenuating renal inflammation and fibrosis. Praliciguat is currently in a dose-ranging Phase 2 study that is expected to enroll approximately 150 adult patients with DN. We expect results from this study in the second half of 2019.

  Heart failure remains a rising global epidemic with an estimated prevalence of approximately 38 million individuals globally. HFpEF comprises 44% to 72% of new heart failure diagnoses and accounts for approximately half of the heart failure hospitalizations, with frequent readmissions. Five-year mortality rates for patients with HFpEF have been reported to range from 55% to 74%. We believe praliciguat, by enhancing impaired nitric oxide signaling in the heart and systemic circulation, has the potential to improve coronary blood flow, increase oxygen delivery to and utilization by skeletal muscle, and over the longer term, reduce cardiac stiffness and microvascular inflammation to both improve symptoms and potentially slow or halt disease

progression. Praliciguat was granted Fast Track Designation for the treatment of HFpEF by the United States FDA and is in a Phase 2 proof-of-concept trial, CAPACITY-HFpEF, that is expected to enroll approximately 184 patients. We expect results from this study in the second half of 2019.

Following completion of ongoing Phase 2 studies, should data warrant, we intend to pursue out-licensing of praliciguat for late-stage development and commercialization in DN, HFpEF and potentially additional cardiovascular/metabolic indications.

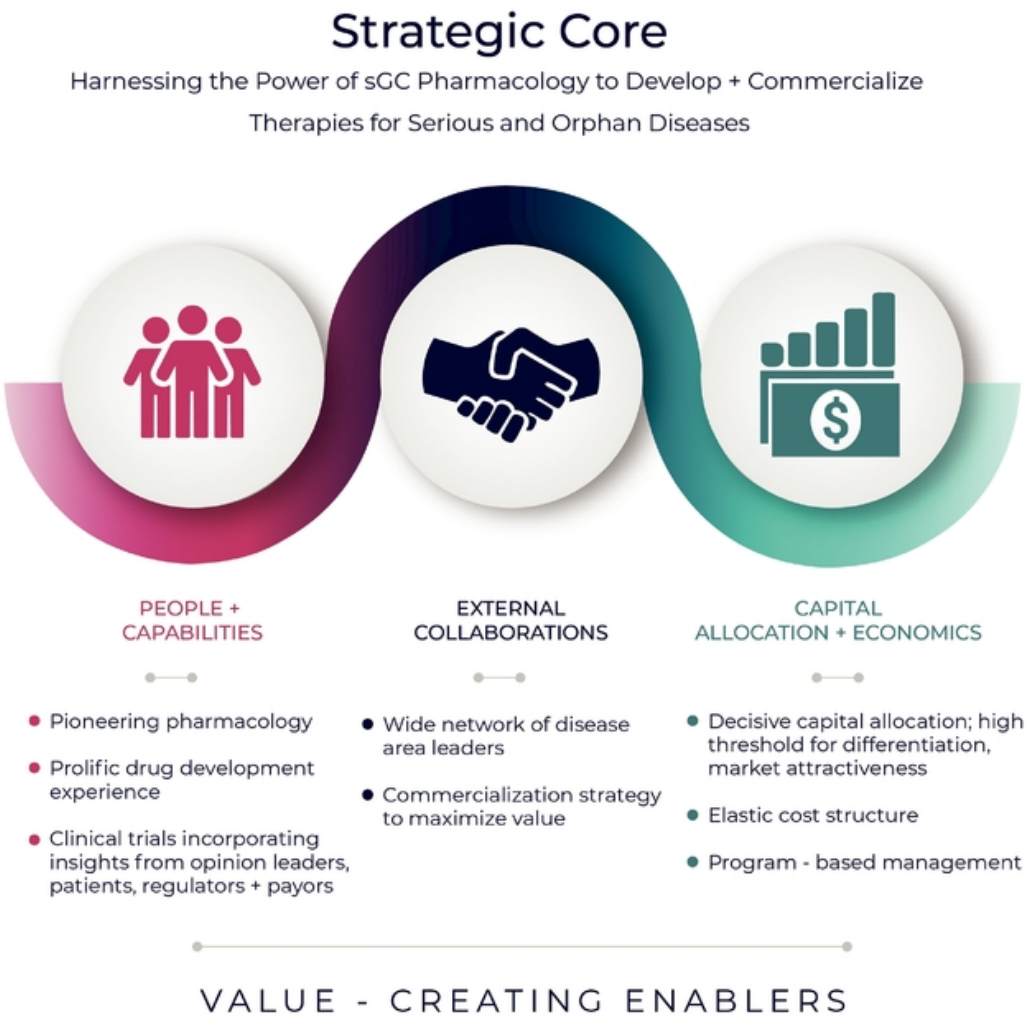
- ***IW-6463 is an orally administered CNS-penetrant sGC stimulator*** that, because it readily crosses the blood-brain barrier, affords an unprecedented opportunity to expand the utility of sGC pharmacology to serious neurodegenerative diseases. Clinical and nonclinical research suggests that nitric oxide signaling plays a critical role in the CNS in memory formation and retention, control of cerebral blood flow and modulation of neuroinflammation. Nitric oxide is a potent neurotransmitter, and impaired nitric oxide-sGC-cGMP signaling is believed to play an important role in the pathogenesis of several neurodegenerative diseases. In preclinical models, IW-6463 has been associated with an increase in cerebral blood flow, improved neuronal health and function, reduced markers of neuroinflammation and enhanced cognition. CNS pharmacological activity of IW-6463 has been observed preclinically using multiple non-invasive techniques that can also be employed in early human clinical studies. Our first-in-human study of IW-6463 initiated in January of 2019 with results expected in the second half of 2019.

- ***Our liver-targeted sGC stimulator*** will be orally administered and designed to selectively partition to the liver. By achieving liver concentrations many fold higher than corresponding plasma concentrations, we intend to maximize hepatic pharmacology. In animal models of liver fibrosis treated with systemic sGC stimulators, we have observed reductions in liver fibrosis, inflammation and steatosis, pathophysiological processes that underlie multiple chronic liver diseases. We expect to nominate a development candidate in the first half of 2019 and progress to filing an IND/CTA thereafter.

- ***Our lung-targeted sGC stimulator*** will be administered via inhalation and will be aimed at realizing the full potential of sGC stimulation in pulmonary diseases by selectively increasing exposure in the lung. Preclinically, our lead molecule is highly retained in the lung with greater than 50-fold selectivity for lung over plasma. In addition, in preclinical studies, the lead molecule is metabolically stable in the lung, whereas it is unstable in the plasma with rapid systemic clearance. We expect to nominate a development candidate in the first half of 2019 and progress to filing an IND/CTA thereafter.

We have a comprehensive intellectual property strategy to protect our platform and related proprietary technology that covers composition of matter, method of use, formulations and process development. The molecules and technologies underlying our sGC patents and pending patent applications were discovered and developed by our internal team of scientific experts.

Value-Creating Enablers



People and capabilities

We are leaders in targeted sGC stimulator chemistry and nitric oxide-cGMP pathway pharmacology. Our founding team has deep knowledge and significant experience in cGMP pathway research and development, from the discovery and development of LINZESS®, an Ironwood product that leverages the pharmacology of the guanylate cyclase-C-cGMP pathway, to the development of the sGC stimulator chemistry libraries and systems pharmacology data that gave rise to the current portfolio of assets and will serve as the foundation for our future innovation. This knowledge and experience, centered on a single scientific mechanism with rich pharmacology, underpins our unique ability to identify opportunities and design sGC stimulators tailored for specific serious diseases.

We have an exceptional team with a proven track record at all levels within our organization. We have broad expertise throughout our organization in discovering, developing and commercializing category-leading products, and are led by a management team with a history of success delivering innovative therapies to patients while creating value for stockholders. Our R&D leadership has been

involved in the development and submission of over 100 IND/CTA applications and 20 NDAs/Marketing Authorization Applications for approval of products based on novel chemical entities. They have more than 200 years of combined experience at pharmaceutical and biotechnology companies and have all worked together previously at Ironwood.

Our Chief Executive Officer, Peter Hecht, Ph.D., served as Ironwood's Chief Executive Officer and a director since co-founding the company in 1998. During that time, he built a highly respected leadership team and culture that worked together to discover, develop and commercialize LINZESS®, a novel first-in-mechanism therapeutic that quickly became the branded prescription market leader in its class and has been taken by millions of patients for irritable bowel syndrome with constipation and chronic idiopathic constipation. Additionally, during his tenure the team pioneered new areas of science, produced a development portfolio with multiple innovative drug candidates, and established a valuable network of global partnerships. Through a combination of private and public equity, structured debt, and partnerships, Dr. Hecht and his team raised over one billion dollars to fund these efforts. **Our President, Mark Currie, Ph.D.**, has made critical scientific contributions over the last 40 years that have greatly advanced understanding of the pharmacology of nitric oxide, guanylate cyclases and cGMP signaling. Dr. Currie has led the characterization and discovery of three hormones that regulate cGMP, atrial natriuretic peptide, guanylin and uroguanylin. These discoveries played a role in the creation of novel treatments for a broad range of diseases including congestive heart failure, acute and chronic pain conditions associated with arthritis, and, more recently, a novel approach to treat patients with painful gastrointestinal conditions. Dr. Currie is the primary inventor of LINZESS®. Prior to joining our team, Dr. Currie led R&D at Ironwood where, in addition to developing LINZESS®, his team created the sGC platform that enabled the creation of Cyclerion. Prior to Ironwood, Dr. Currie led the discovery group at Sepracor and discovery pharmacology at Monsanto/Searle, which produced several important medicines, including LUNESTA® and CELEBREX®. **Our Head of Global Development, Christopher Wright, MD, Ph.D.,** has two decades of medical research and drug development experience in orphan and specialty diseases, including cystic fibrosis, hepatitis C, rheumatoid arthritis, epilepsy and dementia. While at Vertex, Dr. Wright oversaw the development of ORKAMBI® through Phase 3, and the successful development and rapid approval of KALYDECO®, a life-changing cystic fibrosis therapy, by the FDA, EMA and other health authorities. He also played an important role in the global development and approval of INCIVEK® for hepatitis C. Prior to joining our team, Dr. Wright led the global development organization at Ironwood, including responsibility for advancing the late-stage and life-cycle gastrointestinal programs as well as the five sGC programs that underlie Cyclerion's strategic core. Dr. Wright is also a practicing neurologist at Brigham and Women's Hospital in Boston, MA. Our **Chief Financial Officer, William Huyett**, has extensive experience in pharmaceutical and medical device corporate strategy, capital allocation, finance, product development and commercialization and corporate leadership gained during his 30-year career at McKinsey and Company, Inc. He joins us from Ironwood, where he served as Chief Operating Officer, and led the efforts to separate our portfolio of sGC stimulator programs into Cyclerion.

External collaboration

We leverage a diverse cross-disciplinary network of external advisors and experts to advance our drug candidates. We do this in three ways. First, we actively engage leading experts to access additional technologies and expertise to advance our programs. This includes collaborations on preclinical models as well as accessing key technologies that can be used in preclinical or clinical studies. We are seasoned collaborators with a history of practical and productive short-term partnerships as well as profitable long-term alliances. Second, we establish disease-area advisory boards of physicians, patients and payors to provide insights into the unmet medical need and to support the design of clinical trials. Finally, we use a pharmaceutical advisory board made up of veteran drug hunters with broad industry experience and a track record of innovation to help us refine our R&D strategy.

We will apply a "best-owner" approach to our compounds whereby we develop and commercialize product candidates independently or through a partner depending on which path we believe will offer the greatest risk-adjusted value for our shareholders and accelerate global patient access to our drugs. We intend to prioritize development and commercialization in diseases characterized by structurally attractive markets where we can successfully commercialize on our own. We define structurally attractive markets as those managed by a narrow prescriber base with clear unmet patient need, payor willingness to pay and the potential for first-in-class entry. Olinciguat in SCD meets our definition of a structurally attractive market and therefore, we plan to retain the rights to develop and commercialize on our own in the United States and in select global markets. In contrast, due to the broad prescriber base associated with cardiometabolic indications, we intend to pursue out-licensing of the global rights of praliciguat after completion of our ongoing Phase 2 trials to a company with therapeutic-area leadership who can effectively and efficiently execute late-stage development and commercialization. At this time, we do not have any partnerships for any of our product candidates and we intend to apply this "best owner approach" as we make decisions regarding potential partnerships.

Capital allocation and economics

The capital allocation decision making and financial management we use in our business will enable us to continually deploy capital and people to the most promising opportunities. Highlights of our capital allocation and financial management strategy include:

- **Decisive capital allocation:** We plan to establish a high threshold for therapeutic differentiation and compelling business case in each program. We expect to fund clinical trials that are designed to enable decisions to advance or halt the program.

- **Elastic, externalized cost structure:** Our experienced team will seek to use outside supplier/partners wherever possible, in order to benefit from any economies-of-scale and skill sets that such suppliers and partners provide while minimizing our fixed costs.

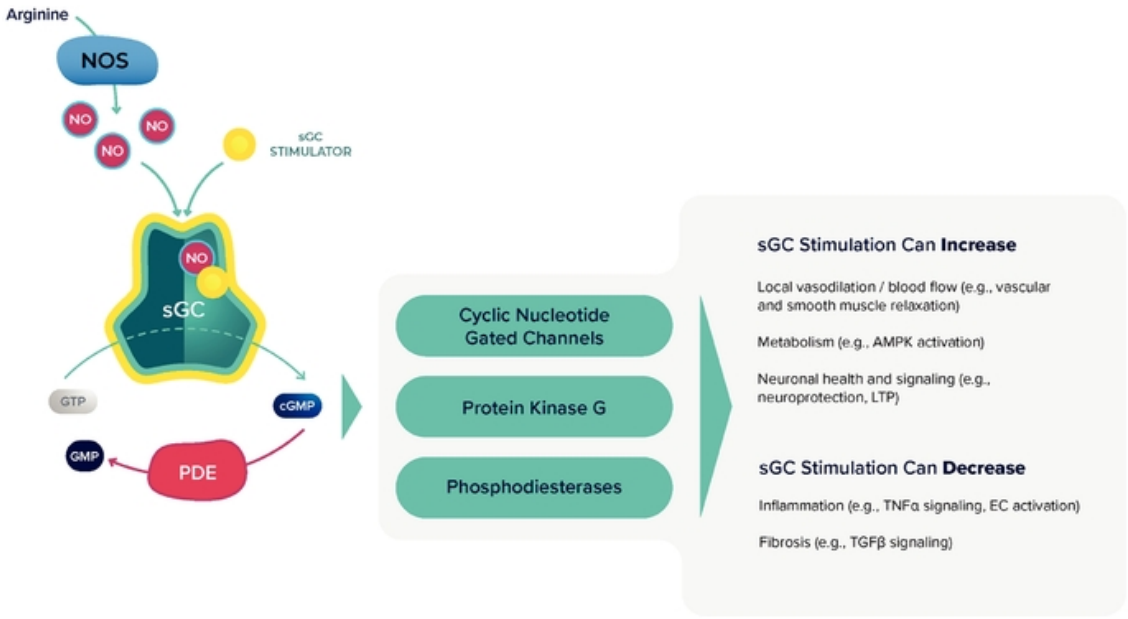
- **Mission-appropriate infrastructure:** Our infrastructure is designed to meet the needs of a multi-program development company intent on prosecuting and developing the sGC mechanism, generating and protecting key IP, compliance and attracting and retaining talent to further advance our five lead sGC stimulator programs and discover additional disease-targeted sGC stimulators.

- **Development program-based management structure:** Our program leaders are accountable for performance against goals for each program based on clinical and scientific, cost and timeline performance metrics.

Our Opportunity—sGC Stimulation

Nitric oxide is a short-lived signaling molecule that is produced locally under exquisite physiological control throughout the body. Nitric oxide signaling plays a central biological role in real-time regulation of diverse systems, the discovery of which was recognized as the basis for the 1998 Nobel Prize in Physiology or Medicine. Nitric oxide signaling is mediated through its receptor, sGC, an intracellular protein in tissues throughout the body, including in the vasculature, kidney, brain, lung, intestines, heart, liver, adipose, spleen and skeletal muscle. As locally produced nitric oxide diffuses into adjacent target cells, it binds to sGC, increasing production of the secondary signaling molecule cGMP. cGMP acts through multiple downstream targets to elicit functional effects. The figure below aggregates the most well-characterized effects of nitric oxide-sGC-cGMP signaling across multiple cell types and tissues. The specificity of nitric oxide signaling in health (*i.e.*, not all of the pathways are activated in all tissues at all times) is accomplished by both local production of nitric oxide and control of the expression and activity of pathway components in distinct cell types. Our approach to capitalize on the breadth of this pathway's potential is to design small molecule sGC stimulators that, by their

unique properties, preferentially increase nitric oxide signaling in the tissues most relevant to the diseases they are intended to treat to elicit some or all of the functional effects listed in the figure below.



AMPK=adenosine monophosphate-activated protein kinase;

cGMP=cyclic guanosine monophosphate;

CNGs=cyclic nucleotide-gated channels;

GC=guanylate cyclase;

GTP=guanosine triphosphate;

EC=endothelial cell;

LTP=long-term potentiation;

NO=nitric oxide;

NOS=nitric oxide synthase;

PDE=phosphodiesterase;

PKG=protein kinase G;

sGC=soluble guanylate cyclase;

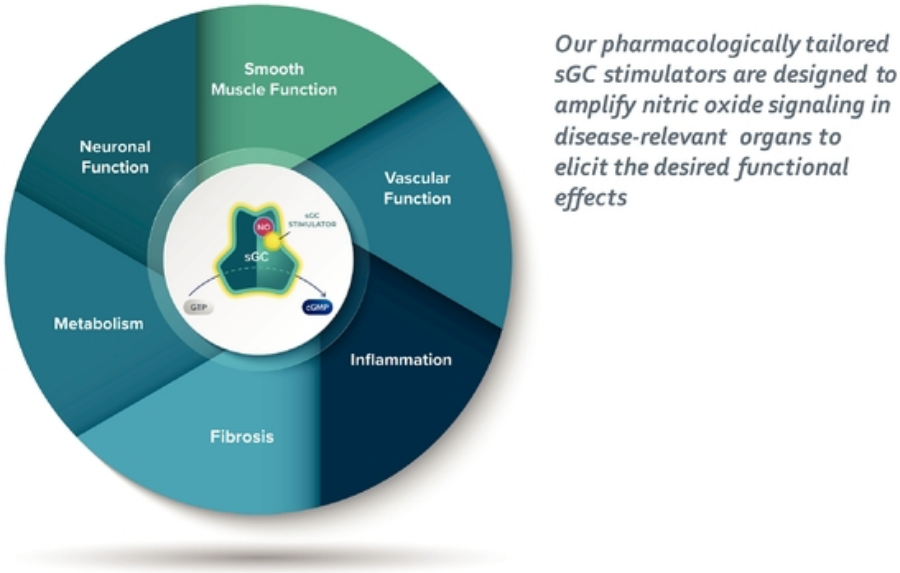
TGF=transforming growth factor;

TNF=tumor necrosis factor

The effects of nitric oxide signaling on vascular smooth muscle tone and blood flow are well characterized and long known. The therapeutic utility of this pathway was first established in the late 1800s with the use of the nitric oxide-generating compound, nitroglycerin, to relieve angina. More recently, agents that act at different steps of this pathway to increase cGMP levels have been developed as therapies for erectile dysfunction *(e.g.*, the phosphodiesterase type 5, or PDE5, inhibitors, VIAGRA® and CIALIS®) and for two types of pulmonary hypertension, PAH and CTEPH (*e.g.*, the PDE5 inhibitors REVATIO® and ADCIRCA® and the sGC stimulator ADEMPAS®).

In addition to controlling blood flow, nitric oxide signaling independently regulates processes that influence fibrosis, inflammation and neuronal function. Our team recently extended known nitric oxide signaling pharmacology with the demonstration of clinical effects on metabolism, including fasting plasma glucose, cholesterol and triglycerides, in type 2 diabetic patients with hypertension (refer to

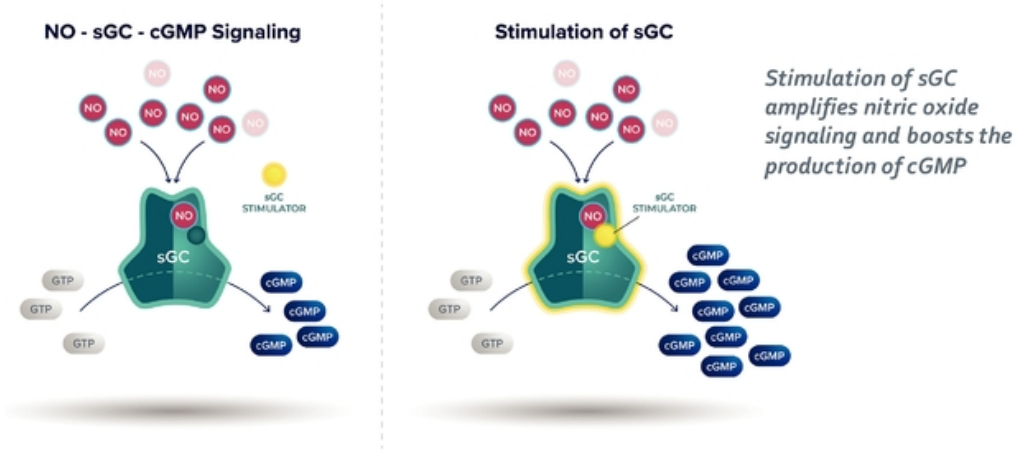
figure "*In a Phase 2a study, patients with type 2 diabetes and hypertension on standard of care treatment regimen who received praliciguat for two weeks had improvements in multiple metabolic parameters*").



A wide range of cardiovascular, metabolic, inflammatory, fibrotic and neurological diseases are associated with deficient nitric oxide signaling. When the bioavailability of endogenous nitric oxide is reduced in disease states, normal physiological function is disrupted and signaling pathways are imbalanced, leading to vasoconstriction, inflammation and fibrosis. We believe restoring this signaling pathway represents a potential therapeutic target for powerful pharmacological intervention in many serious diseases. In addition, as described further below, we believe that our approach to enhancing signaling through the nitric oxide-cGMP pathway will also be relevant in diseases in which signaling may not be compromised but for which the resultant pharmacology of enhanced signaling could bring therapeutic benefit.

We believe that the growing understanding of the nitric oxide-cGMP signaling pathway's role in diverse aspects of health and disease creates the potential for a new generation of important therapeutics for serious and orphan diseases that we believe remains largely untapped. Further, we believe that, of the clinically validated means to modulate nitric oxide-cGMP pathway signaling (nitric oxide-generating compounds, PDE5 inhibitors and sGC stimulators), sGC stimulation represents the optimal mechanism by which to realize the full therapeutic potential of this pathway. Direct nitric oxide-generating compounds, such as nitroglycerin and nitrates, have limitations including tolerance (attenuation of effect over time), which has not been observed for sGC stimulators. PDE5 inhibitors rely on basal signaling (flux) through the pathway to have effects, which limits the pharmacological effect they can have. In contrast, sGC stimulators are agonists of sGC that work synergistically with

nitric oxide to amplify signaling through the pathway, providing opportunity to expand the pharmacology to any tissue in which nitric oxide signaling is occurring.



Adapted from Tobin, Zimmer et al.2018. J. Pharmacol. Exp. Therapeut., 365 (3). 664-675

Stimulation of sGC is clinically validated by ADEMPAS®, an oral, three times-daily administered sGC stimulator marketed by Bayer, that is approved for the treatment of PAH and CTEPH, both progressive life-threatening diseases that are linked to deficiencies in the nitric oxide signaling pathway. ADEMPAS® represents an important first step in demonstrating the therapeutic potential of this mechanism.

In order to realize the significant potential of sGC stimulation to enable the development of important new medicines, we are focused on developing next generation sGC stimulators. Our sGC stimulators act as *directed* agonists, meaning they are designed to boost signaling within the context of the endogenous nitric oxide pathway in a localized, tailored manner.

Importantly, the potential utility of sGC stimulation is not restricted to diseases associated with a loss of nitric oxide signaling. Because sGC stimulators act as agonists, like b-agonists and steroids, they do not require an underlying defect in the pathway to have a pharmacological effect. They are able to enhance the activity of a fully functional nitric oxide signaling pathway to generate pharmacological effects. Preclinical studies suggest that enhanced nitric oxide pathway signaling may provide therapeutic benefit in diseases associated with inflammation, fibrosis or metabolic dysregulation, regardless of whether there is a direct role for the nitric oxide pathway dysfunction in the pathogenesis of the disease.

We believe the breadth of potential applications for sGC stimulators is generally analogous to many aspects of the history of corticosteroids. While sGC stimulators have not been studied as extensively as corticosteroids, we believe the development history for this broad class of agonist drugs is instructive regarding the potential for sGC stimulators, which also act as agonists, to one day have broad application across diseases targeting multiple different tissues and systems. The targets for both sGC stimulators and corticosteroids are found in tissues throughout the body where they regulate fundamental signaling pathways with wide-ranging downstream effects. In this context, first-generation broadly distributed compounds with powerful pharmacology are suited for systemic disorders whereas organ-targeted compounds can enable greater activation in target tissues while minimizing systemic effects. This affords the opportunity to develop not only multiple systemic products but also a wide range of specific tissue-targeted products. In the 1950s, first-generation systemic corticosteroids were developed following the discovery of the hormone cortisol. Powerful systemic corticosteroids such as

prednisone are still used extensively today in the treatment of serious systemic conditions, including lupus, lymphomas and Crohn's disease; however, the expansion of systemic corticosteroids as a class was limited by effects associated with untargeted delivery. The opportunities associated with developing a mechanism for selective delivery of an agonist are illustrated by the proliferation of whole new categories of second-generation corticosteroids that target specific organs. For example, topical cortisone for dermal inflammation, inhaled corticosteroids, such as FLONASE®, for asthma and allergies, and rectally administered budesonide, such as UCERIS® for ulcerative colitis, have all had commercial success.

As was done to harness the powerful pharmacology of corticosteroids, we believe the key to unlocking the full potential of sGC pharmacology is to develop stimulators that can selectively target this pathway in the tissues of greatest relevance to, and with the optimal pharmacokinetic and pharmacodynamic profile for, the diseases of interest. Olinciguat, our vascular sGC stimulator, is distributed to both the vasculature and key organs such as kidney and lungs, which we believe makes olinciguat well suited for the potential treatment of SCD. Praliciguat, our systemic sGC stimulator, is distinct in its very extensive tissue distribution, including to adipose, which we believe may be particularly relevant to the treatment of cardiometabolic diseases such as DN and HFpEF. In addition, we believe we are the first to discover and develop tissue-targeted sGC stimulators, including IW-6463, a compound that can access the brain for potential to address serious neurodegenerative diseases as well as compounds that can preferentially target the liver or the lung for potential treatment of serious and orphan diseases that primarily affect these organs.

Our Product Candidates

Olinciguat for Sickle Cell Disease

Olinciguat is an orally administered, once-daily, vascular sGC stimulator designed for the treatment of SCD. Because SCD is a hemoglobinopathy with blood vessel and multi-organ involvement, we believe olinciguat's distribution to both the vasculature as well as to highly perfused organs such as the kidney and lungs, makes it particularly well suited for the potential treatment of SCD. We believe olinciguat's long plasma half-life, which results in low fluctuations from one daily dose to the next (*i.e.*, low peak-to-trough ratio), will allow for steady, efficacious concentrations to be maintained below levels that might produce side effects. We have observed very low renal clearance of olinciguat in humans, which we believe is a beneficial attribute for this patient population, as patients with SCD often have compromised renal function. Olinciguat treatment was associated with a decrease in the progression of hemolytic anemia in a mouse model of SCD, higher mRNA expression of the g-globin subunit of fetal hemoglobin in cultured cells and lower levels of vascular inflammatory markers and improved vascular function in mouse models of inflammation. Following the completion of our Phase 1 studies with olinciguat that demonstrated a well-tolerated dose range, dose-proportional pharmacokinetics and target engagement, we initiated a Phase 2 clinical study in patients with SCD. Olinciguat is designed to reduce the proportion of sickled cells, decrease vascular inflammation and cell adhesion, and improve nitric oxide-mediated vasodilation. For patients with SCD, we believe this may translate into a reduction in debilitating daily symptoms such as chronic pain and fatigue, decrease in anemia, reduction in painful events called VOCs, and end-organ protection (especially for kidney, heart and lung), potentially leading to an increase in survival. Olinciguat was granted orphan drug designation for SCD by the FDA in June 2018.

Sickle Cell Disease

Disease Background

SCD encompasses a group of genetic blood disorders affecting hemoglobin, a protein in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs. SCD varies substantially in presentation and clinical course. An inherited mutation results in substitution of the amino acid valine for glutamic acid in the sixth position of the beta globin chain causing formation of HbS, an atypical form of hemoglobin that can cause red blood cells to change shape, or sickle. There are several genotypes of SCD found globally with the following being most prevalent:

- HbSS: Patients inherit two sickle cell genes ("S"); one from each parent. This is often referred as "sickle cell anemia" and is usually the most severe form of SCD;
- HbSC: Patients inherit a sickle cell gene ("S") from one parent and an abnormal hemoglobin gene called "C" from the other parent. This is usually a milder form of the disease; and
- HbS/Beta thalassemia: Patients inherit a sickle cell gene from one parent, and a gene for b thalassemia, another form of anemia, from the other parent. There are two types of beta thalassemia: "0" and "+". bthal^{0} is often a more severe form while bthal^{+} is a milder form.

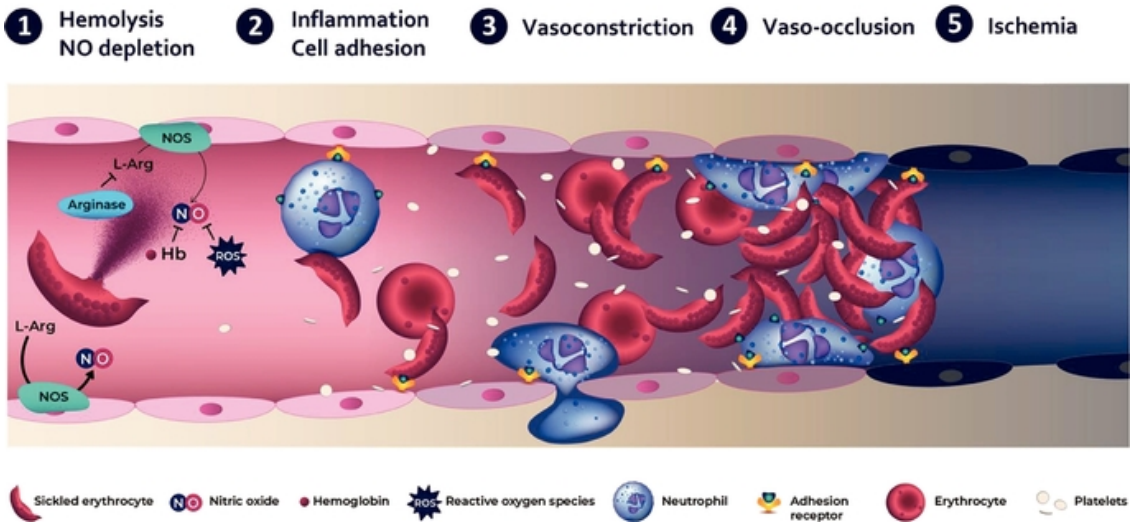
SCD causes lifelong symptoms and complications that generally begin within eight to ten weeks of birth. Painful VOCs are the most reported and recognized complication. Additionally, SCD patients experience many daily symptoms, including chronic pain, fatigue and shortness of breath. Although VOC is the most reported and recognized symptom, SCD affects the entire body. Recurrent episodes of vaso-occlusion and inflammation result in progressive damage to organs, including the brain, kidneys, lungs, bones and cardiovascular system. For example, accumulating damage from both silent cerebral infarcts and overt strokes leads to cognitive impairment, increased pulmonary fibrosis and pulmonary hypertension stress cardiac function and progressive glomerular fibrosis and associated decrease in glomerular filtration rate often lead to renal failure. In fact, nearly one-third of people with SCD will develop chronic kidney disease and some of these patients will develop ESRD. The one-year death rate following an ESRD diagnosis was almost three times higher in people with ESRD due to SCD when compared with those with ESRD from other causes. These cumulative effects lead to a shortened life expectancy with an average of 42 years for males and 48 years for females in the United States.

Current SCD treatment primarily focuses on the management of acute and chronic complications with therapies including antibiotics, anti-inflammatory drugs and blood transfusions. Although chronic transfusions correct anemia and can temporarily resolve painful complication, transfusion carries the risk of iron overload, and therefore, iron chelation therapy becomes a part of a patient's treatment plan in an effort to avoid liver damage. Treatment options that address chronic symptoms and/or underlying pathophysiology are limited. Hematopoietic stem cell transplantation, or HSCT, is the only curative treatment; however, only 10-20% of SCD patients qualify for transplantation. Because of the associated morbidity and mortality and the difficulty in finding a matched donor, HSCT is generally limited to the most severe patients or children with matched siblings. HSCT also does not improve the underlying organ damage that has occurred prior to transplant. Until recently, only one drug, hydroxyurea, was approved by the FDA to reduce the frequency of painful crises and to reduce the need for blood transfusions. Despite recommendations for use in all patients with SCD, few patients are able to continue treatment with hydroxyurea uninterrupted, largely due to its side effects and potential for long-term toxicity. According to the hydroxyurea label, its adverse event profile includes neutropenia and suppression of reticulocytes and platelets, necessitating a temporary cessation in treatment in almost all patients. In 2017, ENDARI™, a pharmaceutical grade oral powder version of the amino acid glutamine, was approved to reduce the acute complications of SCD. According to the ENDARI label, patients treated with placebo for 48 weeks had a median of four pain crises compared with three for

the patients treated with ENDARI. Additionally, many patients are on pain management programs that include chronic opioid therapy; paradoxically however, patients on chronic opioids often experience greater levels of clinical pain as well as depression, fatigue and proportion of days in crisis. In addition, chronic opioid therapy is associated with greater healthcare utilization on both crisis and non-crisis days.

Nitric Oxide Connection

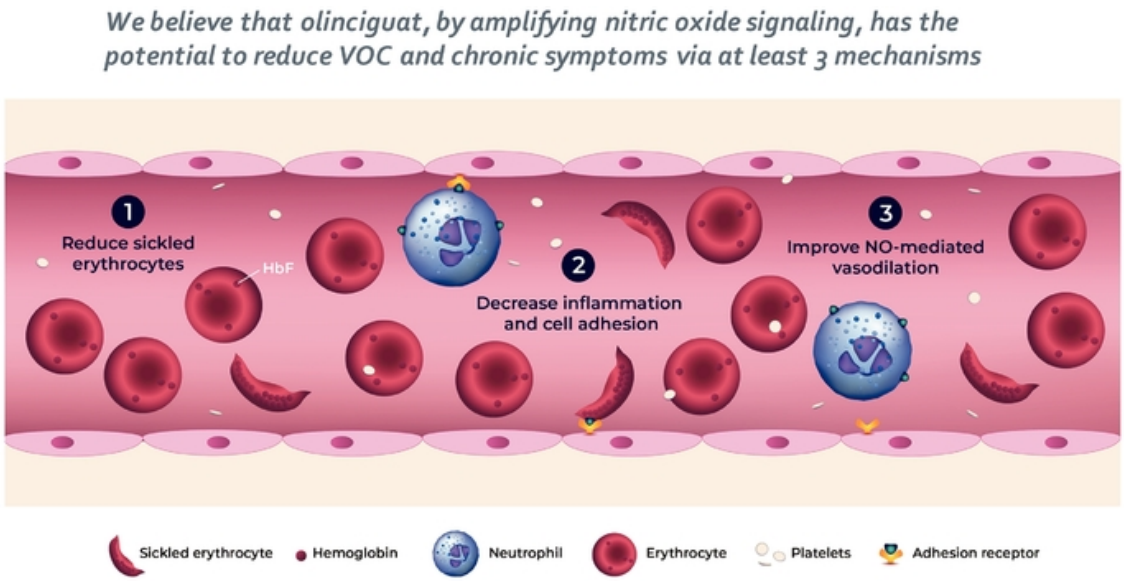
The combined effects of vasoconstriction, inflammation and cellular aggregation and adhesion to the endothelium, the cells that line the interior surface of the vasculature, are believed to contribute to many complications and symptoms of SCD, including VOCs and chronic pain. Over time, these combined effects result in accumulated vascular and tissue damage that can lead to organ failure and shortened life expectancy. Nitric oxide deficiency plays an important role in the pathophysiology that underlies the accumulated damage. HbS, when deoxygenated, polymerizes into rigid chains that deform red blood cells into the characteristic sickle shape. In addition to causing reduced blood flow to organs and tissue, sickled red blood cells are more susceptible to hemolysis, and have an average lifespan of approximately 20 days compared with 120 days for normal red blood cells. As depicted in the figure below, upon hemolysis, hemoglobin and the arginine-metabolizing enzyme arginase are released into the plasma. Cell-free hemoglobin binds with high affinity to nitric oxide in the plasma thereby reducing nitric oxide bioavailability. In addition, arginase degrades arginine, the key substrate for nitric oxide synthesis, which then limits the generation of nitric oxide. Low nitric oxide bioavailability results in reduced cGMP production, which is in turn associated with the vascular inflammation, cell adhesion, vasoconstriction, vaso-occlusion, and ischemia that are responsible for the symptoms and complications of SCD.



Our Solution

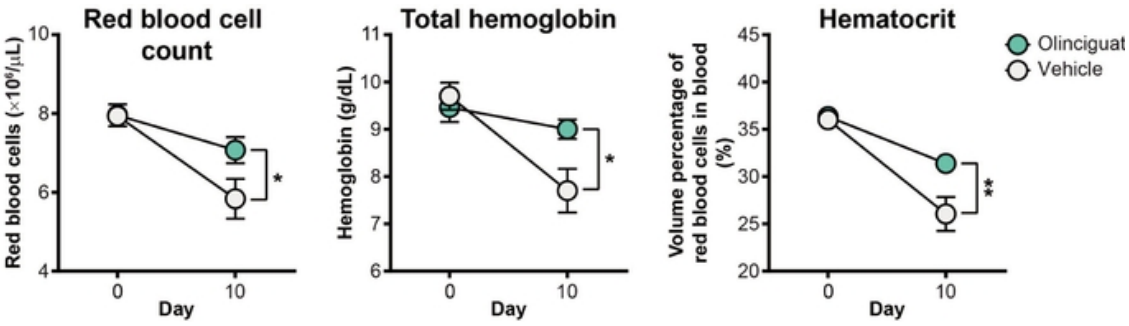
Once-daily olinciguat is designed to address the nitric oxide deficiency that underlies the pathophysiology in SCD by amplifying nitric oxide signaling, which we believe will increase production of HbF, which can inhibit polymerization of HbS and thereby reduce the proportion of sickled red blood cells, decrease vascular inflammation and cell adhesion, and improve nitric oxide-mediated vasodilation, as depicted in the figure below. By these mechanisms, we believe olinciguat may improve the daily symptoms of SCD, including chronic pain and fatigue, as well as decrease anemia, reduce the

frequency of painful crises and ultimately prolong life by preserving organ function. sGC stimulation by olinciguat expands on the focus of other pharmacological approaches to SCD that are limited by narrow or less powerful mechanisms and therefore may have limited therapeutic benefits. We believe our multidimensional pharmacological approach to the treatment of SCD has the potential to address the multifactorial pathology of this disease.



In a preclinical model of SCD, olinciguat treatment was associated with positive effects on key aspects of SCD pathology. The Townes mouse is a knockout-transgenic model of SCD that, like patients with SCD, develops severe hemolytic anemia and organ damage. Male, 9-week-old Townes mice (five mice) treated for 10 days with olinciguat had significantly higher red blood cell counts, total hemoglobin levels and hematocrit (the volume percentage of red blood cells in blood) compared with vehicle-treated controls (five mice), as illustrated in the figure below. In this transgenic mouse model of SCD, olinciguat-treated mice showed a decrease in the progression of hemolytic anemia.

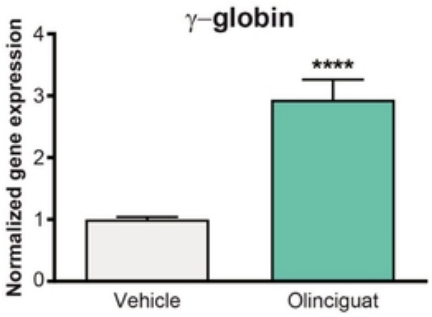
In Townes mouse model of SCD, progression of hemolytic anemia was ameliorated in olinciguat-treated animals



* p<0.05; ** p<0.01 Olinciguat vs Vehicle at Day 10

Induction of HbF has been identified as a mechanism of hydroxyurea in the treatment of SCD and is therefore a clinically validated approach to preventing red blood cell sickling. Because cGMP-mediated signaling is implicated in the regulation of the gene encoding the g-globin subunit of HbF, we believe modulation of nitric oxide signaling has the potential to reduce red blood cell sickling, the underlying pathology of SCD. We evaluated the effects of olinciguat treatment on g-globin mRNA levels in the K562 erythroleukemic cell line. As illustrated below, in cells treated with olinciguat for seven days, the normalized g-globin mRNA expression was almost three-fold greater than that of vehicle-treated control cells. In patients with SCD, higher HbF levels are associated with reduced rates of VOC, decreased frequency of acute chest syndrome and attenuation of other complications of SCD.

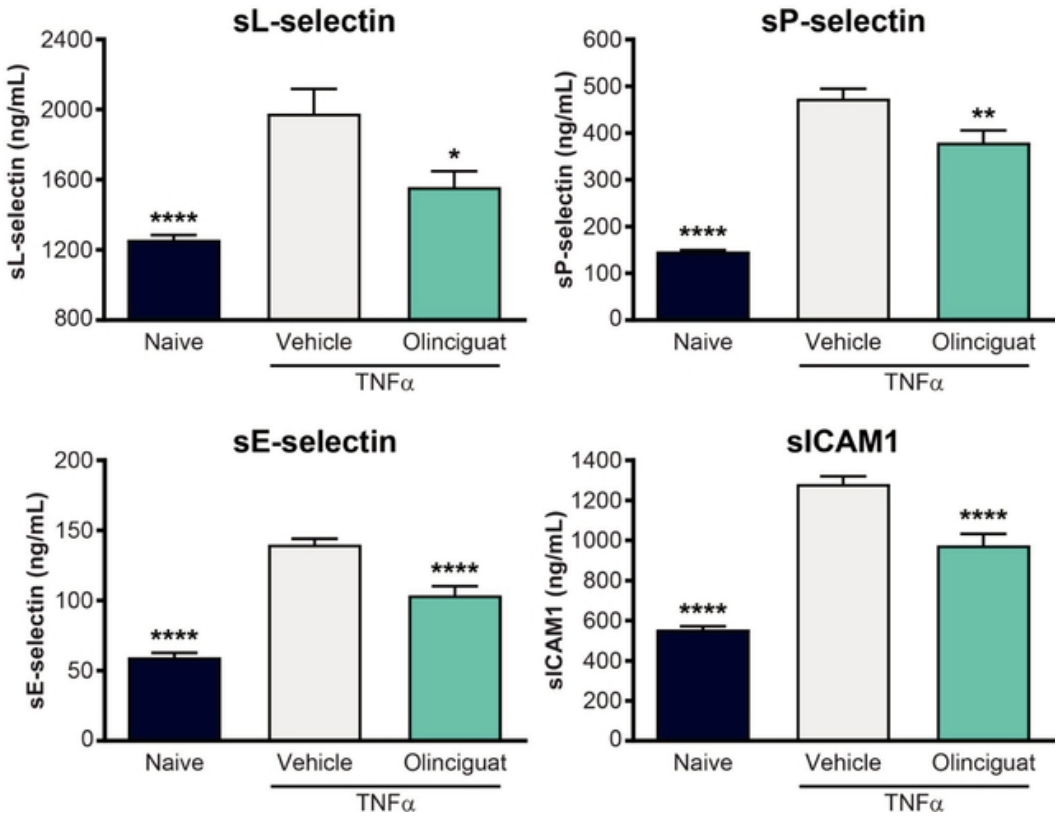
Olinciguat-treated K562 cells, when compared with vehicle-treated cells, had greater normalized mRNA expression of the g-globin subunit of fetal hemoglobin



**** p<0.0001; vs Vehicle

Chronic vascular inflammation in SCD is characterized by the activation of vascular endothelial cells and leukocytes and by the induction of expression of surface adhesion receptors on these cells as well as on platelets. These effects lead to recruitment of sickled red blood cells, leukocytes and platelets to the vascular wall and formation of cell aggregates, which can occlude microcirculation and lead to painful VOCs and other serious complications. Reducing vascular inflammation via blockade of specific adhesion receptors is a validated approach to reduce painful crises in patients with SCD, as demonstrated by a study of the investigational drug crizanlizumab. The effect of olinciguat on the expression of soluble surface adhesion receptors was studied in a mouse model of inflammation in which leukocyte activation is induced by treatment with the pro-inflammatory cytokine TNFa. As shown below, mice (10 mice) pretreated with oral olinciguat one hour before administration of tumor necrosis factor alpha (TNFa) had lower mean plasma levels of the soluble adhesion molecules sL-selectin, sP-selectin, sE-selectin and sICAM-1 than vehicle-treated controls (10 mice), demonstrating attenuation of leukocyte and endothelial cell activation.

In a mouse model of inflammation, leukocyte and endothelial cell activation was attenuated in olinciguat-treated animals



* p<0.05; *** p<0.01; **** p<0.0001 vs TNFa-Vehicle

As a physiological consequence of vascular inflammation and endothelial activation, leukocyte rolling along the vascular wall slows. The speed of leukocyte rolling can be measured in vivo in the vasculature of mice via intravital microscopy. We measured the effect of olinciguat on leukocyte rolling velocity in the venous microcirculation of TNFa-challenged mice. Olinciguat was evaluated both alone and in combination with hydroxyurea, the standard of care in SCD. Treatment of mice with TNFa increased expression of endothelial selectins that form adhesive contacts with leukocytes and slowed leukocyte rolling. Mice pretreated with either olinciguat (three mice) or hydroxyurea (three mice) had significantly faster leukocyte rolling velocities, 10.31±1.14 µm/s (p<0.001) and 15.47±1.68 µm/s (p<0.05), respectively, compared with TNFa controls (three mice), 5.55±0.66 µm/s. The effect was even greater when olinciguat and hydroxyurea were given in combination; leukocyte rolling velocity of combination treatment, 19.66±1.85 µm/s was significantly greater than TNFa controls (p<0.001) and approached the velocity of the naïve controls (three mice), 26.59±3.13 µm/s. These data demonstrate the functional significance of decreasing vascular inflammation via attenuation of the upregulation of vascular adhesion molecules.

Phase 2 Clinical Study in SCD

We are conducting a Phase 2 study in patients with SCD, the STRONG-SCD study. STRONG-SCD is a randomized, placebo-controlled study in patients evaluating the safety, tolerability, pharmacokinetics and pharmacodynamics of three dose levels of olinciguat compared with placebo when administered once daily for 12 weeks. This study is ongoing and enrolling approximately 88 patients aged 16 to 70 years with HbSS, HbSC, $HbSb^0$-thalassemia, or $HbSb^+$-thalassemia and who have experienced one to 10 painful crises in the past year. Patients remain on a stable regimen of their current medication(s) for SCD. Exploratory objectives include evaluation of the effect of olinciguat on painful crisis events, biomarkers of disease activity (*e.g.*, HbF levels, anemia, inflammatory markers) as well as effects on health-related patient-reported outcomes, or PRO, including chronic pain and fatigue. While not explicitly powered for efficacy, we expect to use the data from this trial to evaluate the potential for clinical advancement and, if data warrant, advance the program to a registration trial. We are assessing not only parameters that may allow a direct read on registration endpoints, such as symptoms and pain events, but also parameters that reflect the multidimensional pharmacology we expect to observe based on our preclinical studies. We believe that the full spectrum of data from STRONG-SCD, therefore, will enable us to evaluate potential future clinical development and provide the data to support broad differentiation from other SCD treatments.

The FDA recognizes the importance of patient-focused drug development and has specifically noted that SCD is a disease with significant unmet need, particularly with regard to daily symptoms, such as pain and fatigue. In STRONG-SCD, daily symptoms are being assessed using our Sickle Cell Disease Symptom Assessment Form, or SCD-SAF, a proprietary PRO instrument designed based on patient-centric qualitative research to reflect the most important and relevant symptoms that impact SCD patients. We began developing this PRO instrument before initiating the ongoing Phase 2 trial to enable its use in a registration trial as the assessment underpinning a potential registration endpoint. The SCD-SAF is being developed in accordance with the FDA *Guidance for Industry Patient-Reported Outcome Measures: Use in Medical Product Development to Support Labeling Claims* (2009) and good measurement practices. The SCD-SAF is developed from the patient's perspective to measure concepts that are understandable to patients with SCD and include clear instructions and a short recall period. It measures symptom intensity employing well-defined response options that are sufficiently sensitive to detect change. We believe the SCD-SAF will be a fit-for-purpose assessment of treatment benefit in our context of use. In line with our patient-centric approach, we have also established a patient advisory committee to counsel us on our clinical development program to ensure that we are assessing efficacy in a manner that truly meets the needs of patients suffering from SCD. This advisory committee has enhanced our understanding of the daily symptom burden that SCD has on patients and emphasized that relief from those symptoms is important for patients.

Completed Phase 1 Clinical Studies

Phase 1 single-ascending and multiple-ascending dose studies in healthy subjects identified a well-tolerated dose range of once-daily olinciguat, confirmed target engagement and established proof of pharmacology. In these studies of healthy subjects, oral, once-daily olinciguat was well tolerated with no serious adverse events or discontinuations due to adverse events. The most commonly reported adverse events overall in these studies were headache and tachycardia. In the single-ascending-dose study, ICP-1701-101 in 24 subjects, seven of the 18 olinciguat-treated subjects reported headache, three reported tachycardia/sinus tachycardia, three reported nausea and three reported vomiting; all of these events were mild or moderate. No other events were reported in more than two olinciguat-treated subjects. In the multiple-ascending-dose study, ICP-1701-102 in 55 subjects, all five cohorts (8 olinciguat/3 placebo per cohort) were dosed at a single dose level for seven days, and two of the five cohorts up-titrated to a higher dose for seven more days of dosing. During the first seven days of dosing, seven of the 40 olinciguat-treated subjects reported headache, seven reported tachycardia, three

reported hypotension and three reported nausea. In the second seven days of dosing, two of the 16 olinciguat-treated subjects reported headache. All of these events were mild or moderate. No other events were reported in more than two olinciguat-treated subjects. There were no trends of concern in laboratory, electrocardiograph or platelet function parameters in either study. Olinciguat was dose proportional at steady state with a half-life of approximately 30 hours and a low peak-to-trough ratio (<2), a profile that is supportive of once-a-day dosing regimen. Olinciguat demonstrated a moderate volume of distribution (49.4-58.9 L), which is consistent with exposure both in the vasculature and organs, and very low renal clearance (£0.3% of total body clearance) suggesting a low likelihood for dose adjustment in renally impaired patients. Increases in plasma cGMP provided evidence of sGC target engagement, and reduction in blood pressure demonstrated proof of pharmacology.

Market Opportunity

SCD is the most common hemoglobinopathy disorder worldwide. According to the Centers for Disease Control and Prevention, SCD affects approximately 100,000 people in the United States. It is estimated that the prevalence of SCD in the EU5 is 50,000. SCD is a standard part of mandatory newborn screening in the United States, which reveals an incident population of about one in every 365 African-American births and one in every 16,300 Hispanic-American births in the United States. In addition, SCD is estimated to affect approximately 300,000 children born annually worldwide.

SCD is the most prevalent genetic disease in France and the UK, and its frequency is steadily rising in many other countries in Northern, Central and Southern Europe. SCD is particularly common in people whose ancestors come from Sub-Saharan Africa, South America, Cuba, Central America, Saudi Arabia, India and Mediterranean countries such as Greece, Turkey and Italy.

The cost of managing patients with SCD is substantial. The financial burden is largely driven by inpatient admissions; it was shown that the average SCD patient is admitted to the hospital seven times per year with an average length of stay per visit of seven days. Further, a study by Brousseau, et al found that the 30-day rehospitalization rate was 33.4% and nearly 40% of hospital discharges resulted in a 30-day return for acute care, such as a visit to the emergency department. A 2009 study conducted by the Cardeza Foundation at Thomas Jefferson University estimated the average annual cost of managing a patient with HbSS, one of the three major genotypes of SCD, was greater than $230,000, not adjusting for inflation. Given the average lifespan of a patient with SCD is approximately 50 years, we estimate that cumulative costs over a single SCD patient's life may reach $9 million.

Praliciguat for Cardiometabolic Diseases

Praliciguat is an orally administered, once-daily systemic sGC stimulator designed for the treatment of serious cardiometabolic diseases such as DN and HFpEF. In a preclinical study, oral praliciguat demonstrated extensive distribution to adipose, kidney, heart and liver, which we believe is fundamental to its potential to be a breakthrough therapy for cardiometabolic diseases characterized by adipose inflammation and metabolic dysfunction and associated multi-organ etiology and involvement. In addition, in a clinical study, praliciguat showed negligible renal clearance making it well suited to the treatment of patients with cardiometabolic diseases who commonly have compromised renal function. In a Phase 2a study in patients with type 2 diabetes and hypertension (C1973-202, described below), praliciguat-treated patients had greater decreases in blood pressure and glucose and lipid levels compared with placebo-treated patients. These metabolic improvements are particularly notable because all patients in this exploratory study were receiving standard of care therapy for glycemic and blood pressure control, and most were also receiving statins to reduce lipids. Following these positive metabolic results, we initiated our ongoing Phase 2 studies in DN and HFpEF with praliciguat. In addition to establishing proof-of-concept in these serious diseases with high unmet need, we expect to further characterize the metabolic effects of praliciguat in our Phase 2 studies. In September 2018, the FDA designated the investigation of praliciguat for HFpEF as a Fast Track development program.

Diabetic Nephropathy

Disease Background

DN is a common, serious microvascular complication of type 1 and type 2 diabetes mellitus and is characterized by pathological urinary albumin excretion, glomerular lesions, hypertension and progressive loss of renal function. Diagnosis of DN is based on increased albuminuria and/or reduced estimated glomerular filtration rate in patients with diabetes. In patients with diabetes, nephropathy is a major risk factor for cardiovascular disease, the major driver of excess cardiovascular mortality and the single strongest predictor of mortality. DN is progressive, and patients that survive to ESRD require chronic dialysis treatment or kidney transplant.

Current first-line therapy for DN includes glycemic and blood pressure control and treatment with renin-angiotensin-aldosterone system, or RAAS, inhibitors: either an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker. These treatments may slow the disease, but do not prevent progression to ESRD. In fact, the prevalence of DN has not declined despite increased use of RAAS inhibitors and glucose-lowering medications. Thus, there remains significant unmet medical need for patients with DN.

Nitric Oxide Connection

We believe nitric oxide deficiency plays an important role in the pathogenesis of DN. In the healthy kidney, nitric oxide-sGC-cGMP signaling promotes the relaxation of vascular smooth muscle cells, blocks endothelial cell activation and cytokine-induced injury and inhibits excessive vascular proliferation, fibrosis and inflammation. In patients with diabetes, however, nitric oxide signaling can be impaired due to reduced concentrations of endogenous nitric oxide. Multiple mechanisms contribute to endothelial dysfunction and the reduction in nitric oxide levels in diabetics, including the generation of advanced glycation end-products, increased uric acid levels, increased oxidative stress and increased levels of asymmetric dimethylarginine, or ADMA, which inhibits synthesis of nitric oxide. The resultant decrease in nitric oxide signal may in turn promote the progression of DN. The association between deficient nitric oxide and the development and progression of DN is also established genetically. Multiple genetic polymorphisms in the gene encoding endothelial nitric oxide synthase, or eNOS, a key nitric oxide-producing enzyme in the vasculature, are associated with both DN and reduced enzyme activity or plasma concentrations of nitric oxide.

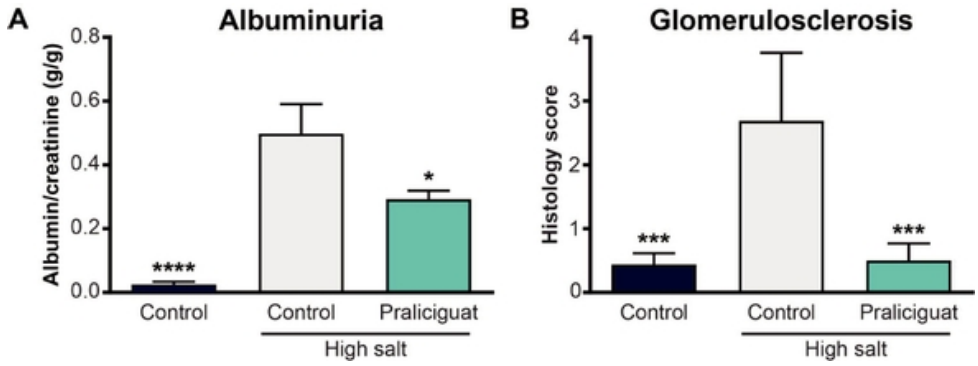
Our Solution

Praliciguat is an oral sGC stimulator that has demonstrated extensive distribution to tissues, including both kidney and adipose, which we believe makes it uniquely suited to treat DN. By acting synergistically with nitric oxide to amplify signaling, we believe praliciguat may compensate for deficits in nitric oxide signaling and ameliorate the pathophysiology of DN. In this way, we believe praliciguat has the potential to improve renal endothelial function, restore appropriate renal blood flow regulation and attenuate or prevent renal inflammation and fibrosis. Based on data from a Phase 2a study (C1973-202, described below) in 26 patients with type 2 diabetes and hypertension, we believe praliciguat may also have positive metabolic effects, including improving insulin sensitivity and LDL cholesterol and triglyceride levels in patients with cardiometabolic disease.

Beneficial effects on renal function were observed in multiple animal models treated with praliciguat, including the ZSF1 and Dahl salt-sensitive rat models. In the obese ZSF1 rat model of DN, plasma, urine and tissue samples were collected at the end of the 11-week study. Obese ZSF1 rats treated with praliciguat (nine rats) had lower liver weight, lower urine volume and proteinuria and lower fasting plasma glucose and cholesterol compared with control animals (eight rats). Moreover, beneficial renal effects were seen at dose levels that had non-significant effects on blood pressure in this study, suggesting the renal-protective effects are independent of systemic hemodynamic effects.

In the Dahl salt-sensitive rat model of hypertension, renal-protective effects were observed in praliciguat-treated animals. Control and treated animals were fed a high-salt diet for eight weeks; after two weeks, praliciguat was added to the high-salt diet of the treated group for the remaining six weeks. Control rats (eight rats) developed kidney damage as evidenced by albuminuria and histological changes. As illustrated below, praliciguat-treated rats (eight rats) had significantly lower levels of urinary albumin than controls (Figure A) suggesting that praliciguat treatment may have blunted the high salt-mediated increase in urinary albumin. Furthermore, histological evaluation of animals treated with praliciguat revealed lower levels of glomerulosclerosis (Figure B) compared with controls. In addition, praliciguat-treated animals had lower level of interstitial fibrosis, interstitial inflammation and vascular alterations compared with controls. Renal-protective effects were observed at a praliciguat dose that produced minimal effects on systemic blood pressure.

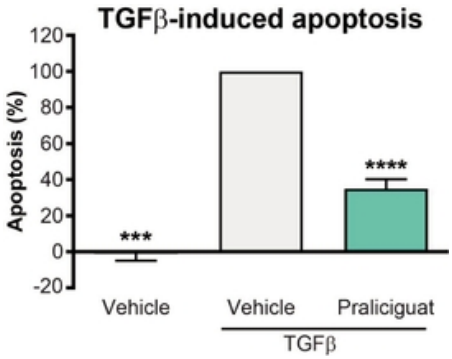
In a preclinical model of hypertension, renal-protective effects were observed in praliciguat-treated animals



* p<0.05; *** p<0.001; **** p<0.0001 vs. High-salt Control

Praliciguat was evaluated in isolated primary human renal proximal tubule epithelial cells (hRPTC) in vitro to mechanistically separate direct effects from effects that may be attributable to changes in local blood flow and hemodynamics. Praliciguat-treated hRPTC cells were inhibited from changing into elongated fibroblast-like cells induced by the profibrotic cytokine, TGFb. As shown in the figure below, praliciguat-treated hRPTC cells also had lower levels of cell death, or apoptosis, induced by treatment with the fibrotic mediator, TGFb, as compared with vehicle-treated cells.

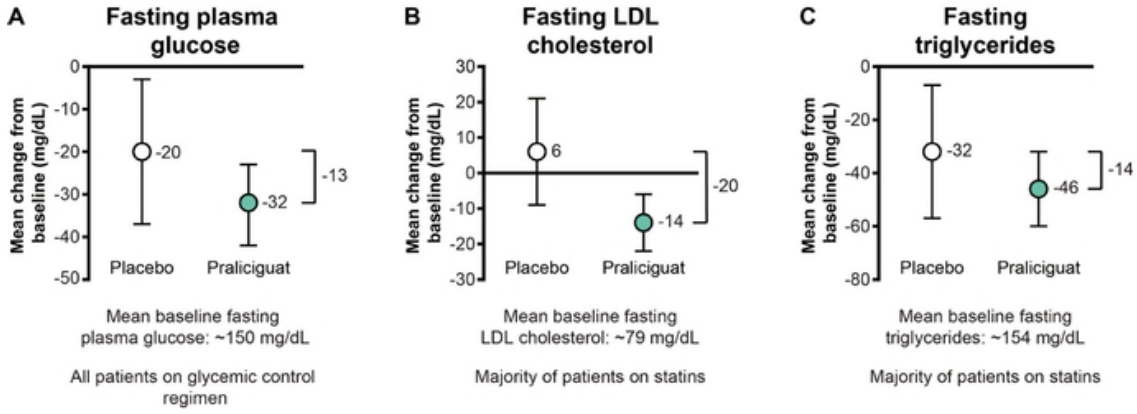
In vitro, praliciguat-treated hRPTC cells had reduced cell death (or apoptosis) triggered by the profibrotic cytokine TGFb



*** p<0.001; **** p<0.0001 vs TGFb-Vehicle

In an exploratory, Phase 2a randomized, placebo-controlled study C1973-202 in 26 patients with type 2 diabetes and hypertension on standard of care therapy, patients treated with praliciguat for 14 days had greater decreases in fasting plasma glucose, LDL cholesterol and triglycerides compared with placebo-treated patients, as shown in Figures A, B and C, respectively. In addition, compared to patients treated with placebo, patients treated with praliciguat had greater decreases in the homeostatic model assessment of insulin resistance, or HOMA-IR, a measure that reflects insulin sensitivity, as well as greater decreases in plasma levels of ADMA, a marker of endothelial dysfunction and cardiovascular disease risk.

In a Phase 2a study, patients with type 2 diabetes and hypertension on standard of care treatment regimen who received praliciguat for two weeks had improvements in multiple metabolic parameters



Phase 2 Clinical Study in Diabetic Nephropathy

We are conducting a dose-ranging Phase 2 trial in DN with the primary efficacy objective of evaluating the effect of praliciguat on urine albumin-to-creatinine ratio, or UACR, an indicator of kidney damage. This randomized, double-blind, placebo-controlled trial is evaluating safety and efficacy of two dose levels of once-daily praliciguat administered for 12 weeks. The study is enrolling approximately 150 adult patients with type 2 diabetes mellitus, albuminuria and impaired renal function who are on stable antihyperglycemic medications and RAAS inhibitors. We have designed this study to enable us to evaluate the potential for clinical advancement following completion of the study.

In addition to UACR, this study is evaluating the effect of praliciguat on hemodynamics measured by ambulatory blood pressure monitoring, cardiovascular and renal biomarkers and metabolic markers, including fasting plasma glucose, lipids, hemoglobin A1c, insulin and insulin resistance. We expect this study will allow us to expand and confirm our understanding of the effects of praliciguat on diabetic, metabolic, vascular and renal parameters, all of which are relevant across diabetic populations. Data are expected in the second half of 2019.

Completed Phase 1 and 2a Clinical Studies

Phase 1 single-ascending and multiple-ascending dose studies in 100 healthy subjects identified a well-tolerated dose range of once-daily praliciguat, confirmed target engagement and established proof of pharmacology. There were no serious adverse events or discontinuations due to adverse events in these studies. In the randomized, placebo-controlled, single-ascending-dose study, ICP-1973-101 in 46 subjects, 11 of the 35 praliciguat-treated subjects reported headache, five reported tachycardia and four reported vomiting. All of these events were mild or moderate except for one adverse event of vomiting that was severe. No other adverse events were reported in more than two praliciguat-treated subjects. As this was a dose-escalating trial designed to determine the maximum tolerated dose for future clinical trials, most (seven of 11) of the praliciguat-treated subjects who reported headache and all (four of four) of the praliciguat-treated subjects who reported vomiting received dose levels deemed not tolerated in this Phase 1a study. In the randomized, placebo-controlled, multiple-ascending dose study, ICP-1973-102, 44 subjects received a single dose level daily for 14 days then up-titrated to a higher dose for seven more days of dosing. Of the 32 praliciguat-treated subjects, 15 reported headache and six reported dizziness/postural dizziness; all of these events were mild or moderate. No other adverse events were reported by more than two praliciguat-treated subjects. These common adverse events are consistent with the known pharmacology of sGC stimulation and occurred mainly at the higher dose levels. There were no observed trends of concern in laboratory, electrocardiograph or platelet function parameters. Praliciguat exhibited dose-proportional pharmacokinetics with an effective half-life supportive of once-daily dosing. In addition, praliciguat had a large volume of distribution (3100-3610 L) indicating it is broadly distributed to tissues, and negligible renal clearance (£0.01% of total body clearance) suggesting a low likelihood for dose adjustment in renally impaired patients. Increases in plasma cGMP provided evidence of sGC target engagement, and reduction in blood pressure demonstrated proof of pharmacology. In a Phase 1 drug-drug interaction study with aspirin, C1973-103, praliciguat both alone and in combination with aspirin did not affect bleeding time or platelet function in healthy subjects, nor were there any pharmacokinetic interactions between praliciguat and aspirin.

We have also completed two companion exploratory Phase 2a studies in a total of 37 patients with type 2 diabetes and hypertension who were on stable regimens of medications for both diabetes and blood pressure control. The smaller study, C1973-201, was an open-label rapid-dose-escalation study in 11 patients. Praliciguat was well tolerated in this study with four of the eleven patients reporting headache, which were all considered mild; no other adverse events were reported by more than two patients. Study C1973-202 was a randomized, placebo-controlled, 14-day study of once-daily praliciguat in 26 patients. Of the 20 patients who received praliciguat, five each reported headache, hypoglycemia and nausea, and three reported diarrhea; all of these events were considered mild. No other adverse

events were reported by more than two patients. A single serious adverse event of upper gastrointestinal hemorrhage deemed severe and study drug related occurred in a patient receiving praliciguat who had ulcerative esophagitis and a previously undiagnosed hiatal hernia; the upper gastrointestinal hemorrhage resolved the same day and the patient recovered completely. There were no observed trends of concern in laboratory, electrocardiograph or platelet function parameters. In these patients on one or more blood pressure-lowering medications, treatment with praliciguat was associated with small but consistent reductions in blood pressure. Patients treated with praliciguat also had positive metabolic changes compared with placebo, including mean declines in fasting plasma glucose, triglycerides and LDL serum cholesterol (see figure above "*In a Phase 2a study, patients with type 2 diabetes and hypertension on standard of care treatment regimen who received praliciguat for two weeks had improvements in multiple metabolic parameters").* In addition, praliciguat-treated patients had a mean decline in plasma ADMA, a marker of endothelial dysfunction and a risk factor for cardiovascular disease. As in the Phase 1 studies, praliciguat had a large volume of distribution indicating extensive distribution outside the vasculature and a pharmacokinetic/pharmacodynamic profile supportive of once-daily dosing.

Market Opportunity

The World Health Organization estimates that there are over 400 million adults with diabetes globally at a prevalence rate of 8.5%. According to Gheith, et al, up to 40% of all patients with diabetes have DN. The burden of caring for DN patients is high due to the cost of treating ESRD as well as the strong association of DN with cardiovascular morbidity. The total expenses for managing patients with ESRD in 2010 in the United States was $32.9 billion for Medicare patients and $14.5 billion for non-Medicare patients.

HFpEF

Disease Background

Patients with HFpEF have clinical signs and symptoms that include difficulty breathing, shortness of breath while lying down, swelling of the legs, pulmonary congestion and enlargement of the heart. These patients often have low activity levels and impaired quality of life and frequently experience depression. Mortality rates over five years for patients diagnosed with HFpEF have been reported to range from 55% to 74%. Impaired functional capacity is a major source of morbidity in HFpEF patients and substantially affects patients' day-to-day functioning. HFpEF patients generally suffer from multiple co-morbid conditions including type 2 diabetes mellitus, chronic kidney disease, metabolic syndrome, coronary artery disease, obesity and hypertension.

While there have been advances in treatment for patients with heart failure with reduced ejection fraction, or HFrEF, there are no approved therapies to treat HFpEF and treatment options are largely empiric. Lifestyle modifications such as diet and exercise are recommended but are often ineffective. Current management strategies are based on managing the comorbidities that often occur with HFpEF such as diabetes, hypertension, chronic kidney disease, chronic pulmonary disease, obesity and coronary artery disease. Heart failure remains a rising global epidemic with an estimated prevalence of approximately 38 million individuals globally. HFpEF comprises 44% to 72% of new heart failure diagnoses. Patients with HFpEF account for approximately half of the total hospitalizations for heart failure and are frequently re-admitted following discharge.

Nitric Oxide Connection

HFpEF and many of its common comorbid conditions are associated with chronic systemic microvascular inflammation and endothelial dysfunction, which are thought to contribute to the development of cardiac and skeletal muscle inflammation and subsequent fibrosis. In turn, these

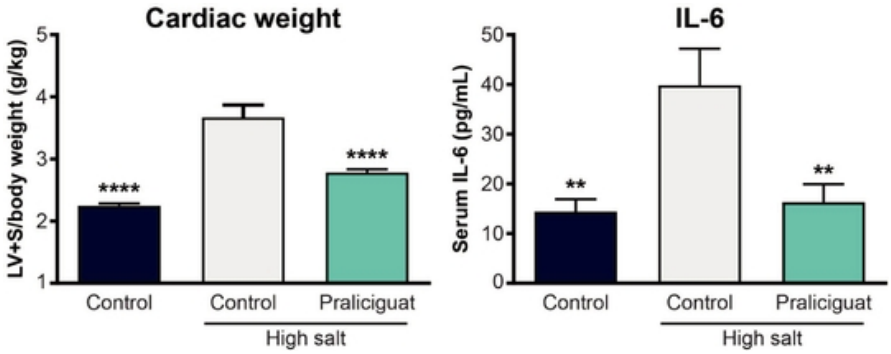
conditions are accompanied by increased oxidative stress, which reduces nitric oxide signaling and cGMP. Decreased cGMP levels result in multiple downstream effects, including impaired phosphorylation of titin leading to decreased myocardial compliance and increased synthesis of collagen. These effects may further play a role in the reduced ventricular compliance and the myocardial remodeling that is sometimes seen in HFpEF. The resulting endothelial dysfunction also leads to reduced coronary flow reserve and reduced oxygen delivery to, and utilization by, skeletal muscle.

Our Solution

Based on preclinical data, we believe praliciguat has the potential to provide both short- and long-term beneficial effects for patients with HFpEF. By enhancing impaired nitric oxide signaling in the heart and systemic circulation, we believe praliciguat has the potential to improve coronary flow reserve (the maximum increase in blood flow through the coronary arteries above the normal resting volume) as well as oxygen delivery to, and utilization by, skeletal muscle. Through this mechanism, we believe praliciguat may have a positive impact on patient symptoms, including improving exercise tolerance. Furthermore, we believe longer-term treatment with praliciguat has the potential to reduce cardiac stiffness by increasing phosphorylation of titin; to reduce microvascular inflammation and fibrosis, pathophysiological drivers of HFpEF; and to prevent left ventricular remodeling and disease progression. We believe these improvements may translate not only to increases in functional capacity and quality of life for patients with HFpEF, but also to reduction in hospitalizations and mortality in this underserved patient population.

Preclinically, praliciguat treatment was associated with positive effects on cardiac morphology, function and biomarkers in models of heart failure. The Dahl salt-sensitive rat is a model of hypertension that develops cardiac hypertrophy and other characteristics associated with HFpEF. In this rat model, lower cardiac weight, as well as lower levels of the inflammatory biomarker interleukin 6 (IL-6), was observed in eight rats following six weeks of treatment with praliciguat compared to an untreated control group (eight rats), as shown below.

In a preclinical model of heart failure, lower cardiac hypertrophy and markers of inflammation were observed in praliciguat-treated animals



** p<0.01; **** p<0.0001 vs High-salt Control; LV+S=left ventricular free wall plus ventricular septum

Phase 2 Clinical Study in HFpEF

We are conducting a Phase 2 proof-of-concept trial, CAPACITY-HFpEF, to evaluate the safety and efficacy of once-daily praliciguat over 12 weeks of treatment in approximately 184 patients with HFpEF. The study population is adult patients with established heart failure with an ejection fraction of at least 40%, who demonstrate limited exercise capacity based on cardiopulmonary exercise testing, or CPET, with NYHA class II-IV symptomatology. In addition, patients must have at least two of four risk factors for HFpEF that are associated with decreased nitric oxide signaling: diabetes/prediabetes, hypertension, obesity and advanced age (³70 years). Patients are stratified by atrial fibrillation status and by baseline peak oxygen uptake (VO_2) and randomized to praliciguat or placebo.

The primary efficacy endpoint of this multicenter, randomized, double-blind, placebo-controlled, proof-of-concept study is peak VO_2 measured during CPET. This quantitative measure of exercise capacity defines functional aerobic capacity and reflects a patient's uptake, transport and use of oxygen, which are all aspects that we believe will be improved by the vascular effects of praliciguat. Secondary efficacy endpoints also measure functional capacity and include six-minute walk distance and ventilatory efficiency by CPET. We believe that improvements in these measures may translate into improvements in heart failure prognosis and in a patient's ability to function independently. Additional assessments include echocardiography, NYHA classification and the Kansas City Cardiomyopathy Questionnaire, which assesses health-related quality of life in patients with chronic heart failure. We will also examine biomarkers of metabolic effects, such as lipids, glucose and hemoglobin A1c levels to expand our understanding of the effect of praliciguat on metabolic parameters in patients with HFpEF. Data from this trial are expected in the second half of 2019.

Market Opportunity

Heart failure is the most common cause of hospitalization in Medicare patients and represents 1-2% of all hospitalizations or approximately one million discharges per year. The number of heart failure hospitalization admissions tripled between 1979 and 2004. Between 1987 and 2001, the average prevalence of HFpEF hospitalizations increased from 38% to 54%. Admitted patients with HFpEF have a 50% chance of re-hospitalization for heart failure within six months. Further, total costs for managing heart failure patients in the United States is expected to grow to $53 billion by 2030.

IW-6463 for Neurodegenerative Diseases

IW-6463, which we believe is the first and only sGC stimulator pharmacologically tailored to address neurodegenerative diseases, has demonstrated significant exposure in the CNS in preclinical studies. We believe IW-6463 affords an unprecedented opportunity to expand the utility of sGC pharmacology to serious neurodegenerative diseases. Clinical and nonclinical research suggests that nitric oxide signaling plays a critical role in the CNS in memory formation and retention, cerebral blood flow and neuroinflammation. In preclinical models, IW-6463 treatment was associated with increases in cerebral blood flow; increases in brain tissue cGMP levels; improvements in neuronal health and function; reductions in markers of neuroinflammation; increases in neuroprotective factors, including phosphorylated adenosine 3', 5'-cyclic monophosphate response element-binding protein, or pCREB; and enhanced cognition. CNS pharmacological activity of IW-6463 has been observed preclinically using multiple non-invasive techniques that can also be employed in early clinical studies. Our first-in-human study of IW-6463 initiated in January of 2019 with results expected in the second half of 2019.

Serious Neurodegenerative Diseases Associated with Nitric Oxide Deficiency

Neurodegenerative disease is a comprehensive term for diseases characterized by neuronal death, progressive tissue loss and subsequent mortality. This group of diseases, while widely differing in terms

of etiology, genetics, comorbidities and rates of progression, has the common pathophysiology of neuronal damage and cell death and is often associated with deficits in nitric oxide signaling. Disease progression is typically driven by chronic oxidative stress that results in increases in reactive oxygen species and neuroinflammation in the CNS. The persistent inflammatory state leads to decreased neuronal metabolism, impaired blood flow and decreased nutrient supply, all of which ultimately result in loss of neuronal connections, impaired signaling, cell death and cognitive deficits.

We are targeting neurodegenerative diseases that meet the following criteria: (i) serious disease in a precisely defined population where we have potential to offer a breakthrough treatment, (ii) underlying pathophysiology linked to deficiencies in nitric oxide signaling, (iii) ability to demonstrate proof-of-concept in a clear and efficient manner and (iv) opportunity to develop strong value recognized by payors and meaningful commercial potential.

Nitric Oxide Connection

Nitric oxide is a potent neurotransmitter. Increases in nitric oxide signaling have been implicated in promoting neuronal survival and function, restoring vascular tone and regional blood flow and decreasing inflammation and fibrosis. Impaired NO-sGC-cGMP signaling is believed to play an important role in the pathogenesis of several neurodegenerative diseases, and decreased nitric oxide signaling has been linked to cognitive impairment.

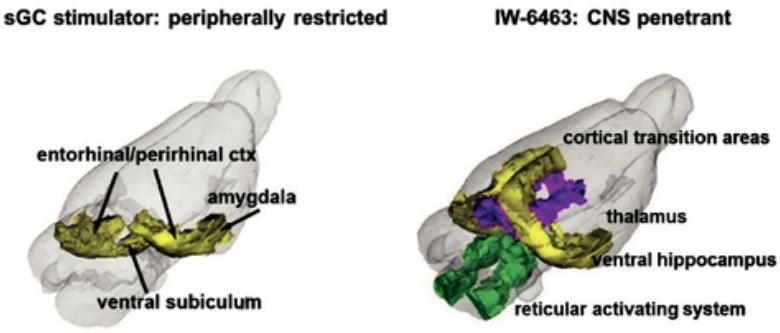
Our Solution

IW-6463 is designed to address serious neurodegenerative diseases through its significant exposure in the CNS. In serious CNS diseases associated with nitric oxide deficiency, we believe IW-6463 may amplify endogenous nitric oxide signaling to alleviate neurodegenerative pathology at the cellular level and thereby restore neuronal health and function. More broadly, in neurodegenerative diseases of varying etiologies, we believe that IW-6463 has the potential to combat neurodegeneration via the neuroprotective and neurofunctional benefits of nitric oxide signaling.

Across a variety of preclinical models, treatment with IW-6463 was associated with increases in cerebral blood flow, reductions in markers of neuroinflammation, increased neuroprotection and enhanced cognition. Furthermore, effects have been demonstrated at doses associated with minimal reductions in systemic blood pressure.

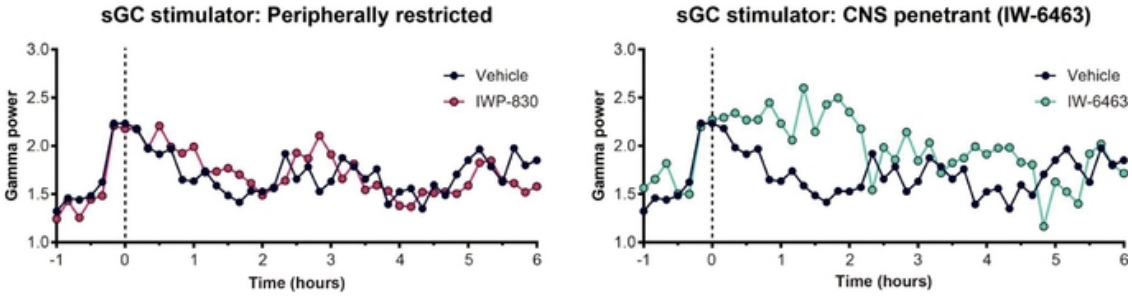
CNS activity can be assessed by measuring blood flow in the brain via functional magnetic resonance imaging using blood-oxygen-level dependent (BOLD) imaging. As shown below, compared with animals treated with a peripherally restricted sGC stimulator that does not penetrate the CNS (left image, eight rats), animals treated with CNS-penetrant IW-6463 (right image, 10 rats) had increased BOLD signal in brain areas associated with memory and arousal in rats, indicating that blood flow to those brain areas increased with IW-6463 treatment.

IW-6463-treated rats had increased blood flow to brain areas associated with memory and arousal relative to rats treated with a peripherally restricted sGC stimulator



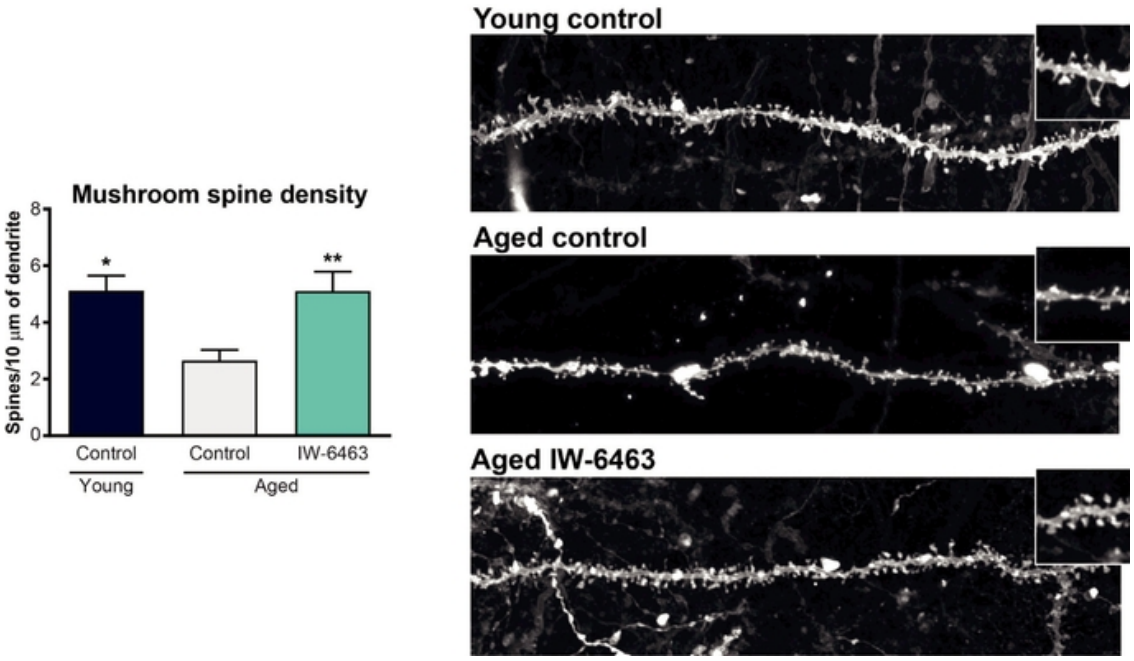
Gamma band oscillations as measured by quantitative electroencephalography, or qEEG, are known to be associated with cognitive processing and have been shown to be altered in several neurodegenerative disorders. Cortical activity was measured in rats via qEEG following a single dose of CNS-penetrant IW-6463 (12 rats) or a peripherally restricted sGC stimulator (12 rats). As illustrated in example EEG tracings below, compared with EEG activity in rats receiving the peripherally restricted stimulator, rats receiving IW-6463 had increases in gamma band oscillations demonstrating significant cortical brain activity.

Compared with a peripherally restricted sGC stimulator, cortical brain activity increased in rats following single-dose IW-6463



Dendritic spines protrude from the dendritic shafts of neurons and are involved in the synaptic processes that underlie cognitive function. Loss of neuronal spines is associated with neurogenerative disorders, is correlated with decreased synaptic function and may contribute to cognitive dysfunction. We evaluated the effects of IW-6463 on the density of spines of pyramidal neurons in the hippocampus of aged mice. As illustrated below, after four months of treatment, the density of hippocampal neuronal spines in IW-6463-treated aged mice was not only greater than that of vehicle-treated aged mice controls but was at the same level as that of the young control mice (six mice per group with five sections per mouse). Restoration of spine density has the potential to provide neuroprotective effects and improve synaptic function in neurodegenerative diseases.

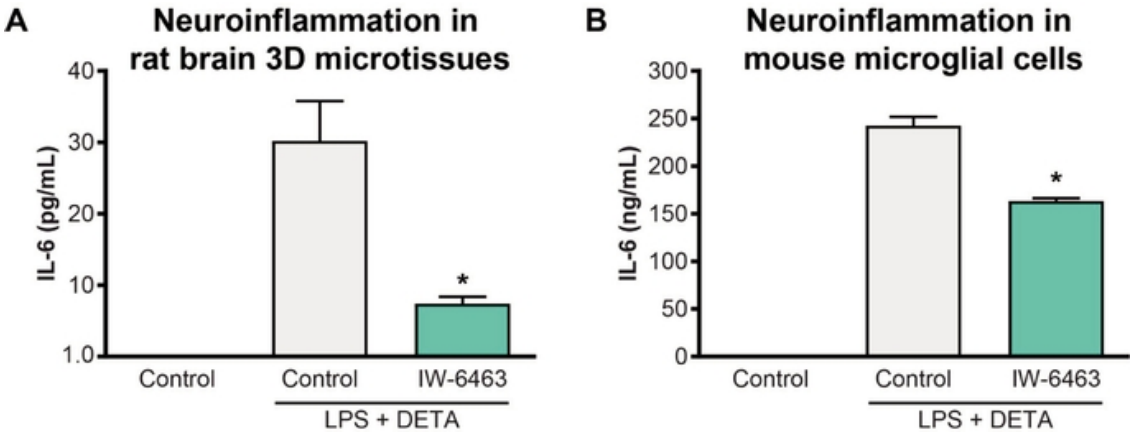
Aged mice treated with IW-6463 for four months had neuronal spine density greater than that observed in aged control mice and similar to that observed in young control mice



* p<0.05 vs Aged control

Inflammation in the CNS drives the progression of neurodegeneration by multiple mechanisms, including disruption of healthy neuronal processes and blood-brain barrier integrity, which are critical to homeostasis of the CNS. The effects of IW-6463 on markers of inflammation were studied in two in vitro models. In the first, the effect of IW-6463 was studied in rat brain 3D microtissues, a 3D cell model containing a mix of neurons, astrocytes, microglial cells and oligodendrocytes. In this in vitro model, brain microtissues pretreated with IW-6463 had lower levels of lipopolysaccharides (LPS)-induced inflammatory cytokines and pro-apoptotic markers, including IL-6, compared with control, as shown in Figure A below. In a second in vitro study, mouse microglial SIM-A9 cells pretreated with IW-6463 had lower levels of LPS-induced IL-6 compared with control, as shown in Figure B below. We believe these results suggest that IW-6463 has the potential to inhibit neuroinflammation, thus promoting neuronal survival.

In rat brain 3D microtissues and mouse microglial cells, IW-6463 pretreatment was associated with reduced LPS-induced proinflammatory cytokines

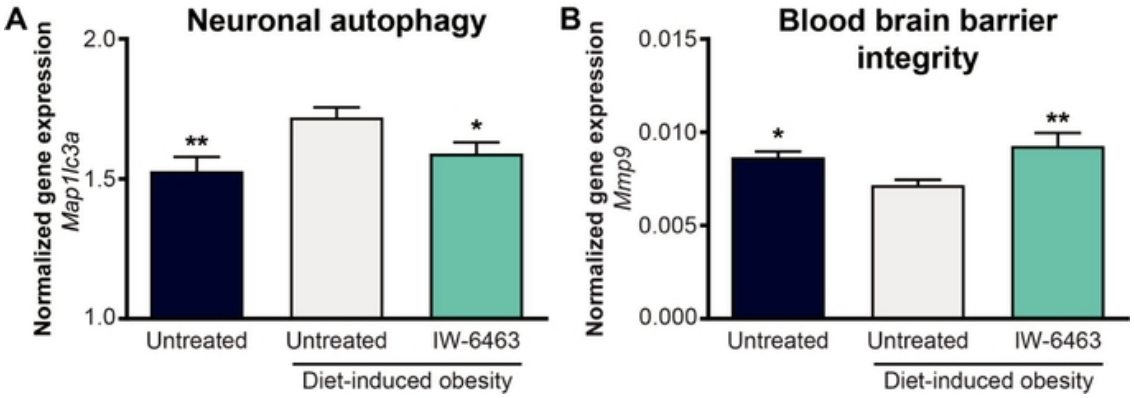


* p<0.05 vs LPS + DETA Control.

NOTE: Values for the non-LPS-induced Control were below the limit of quantification and not included in the statistical analysis.

Neuroinflammation accompanies obesity-related metabolic diseases, which are in turn associated with multiple neurogenerative diseases. To assess the effects of IW-6463 on obesity-induced neuroinflammatory-associated processes, we studied markers of neuronal health in the diet-induced obesity mouse model. We measured gene expression of microtubule-associated protein 1-light chain 3A, or Map1lc3a, a marker for autophagy. Neuronal autophagy is a cellular degradation process necessary for the maintenance of neuronal function, and impaired autophagy leads to neurodegeneration. As illustrated below in Figure A, obese mice (nine mice) treated with IW-6463 had lower levels of Map1lc3a in the hypothalamus compared with those untreated (nine mice). We also assessed the effect of IW-6463 on blood-brain barrier integrity in this model via gene expression of matrix metalloproteinase 9, or MMP-9, as decreases in MMP-9 expression are associated with neuronal cell loss. As illustrated below in Figure B, IW-6463-treated obese mice had higher expression levels of *Mmp9* compared with untreated obese mice. We believe these results demonstrate neuroprotective effects that are a functional consequence of anti-inflammatory activity in the CNS.

IW-6463 treatment was associated with anti-inflammatory neuroprotective effects in the mouse obesity model

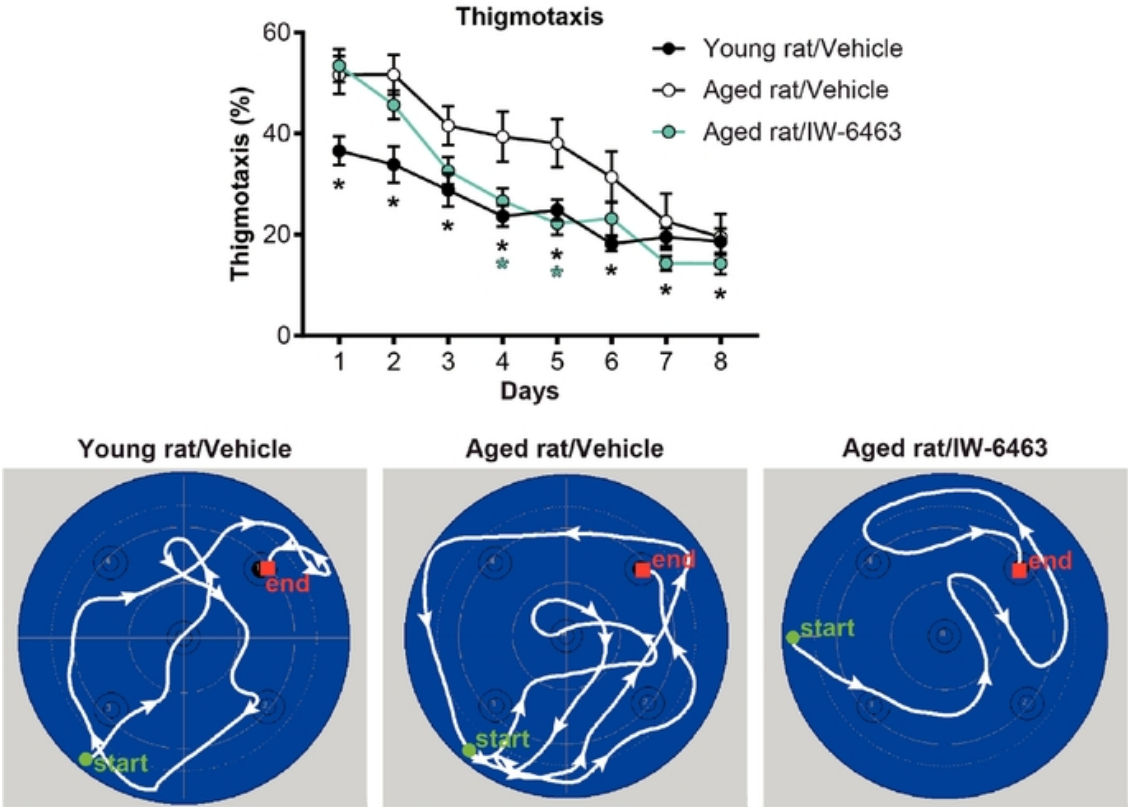


* p<0.05;

** p<0.01 vs Obese Control

IW-6463 treatment was also associated with positive cognitive effects in multiple animal models, including both aged and pharmacologically impaired rats. The effects of daily oral IW-6463 treatment in aged rats were assessed over eight days in the Morris water maze, a test of spatial and learning memory. On Day 1, thigmotaxis (wall-following behavior that delays maze solving) was similar in aged animals receiving IW-6463 (18 rats) and aged animals receiving vehicle (17 rats), while young animals receiving vehicle (20 rats) had lower values as depicted in the figure below. As exemplified by the path tracings, on days 4 and 5, IW-6463-treated rats had a mean thigmotaxis value lower than that of aged vehicle-treated rats, and similar to that of young vehicle-treated rats.

IW-6463-treated aged rats had improvements in thigmotaxis compared with vehicle-treated aged rats



* p<0.05; vs Aged/Vehicle

Based on these preclinical data indicating that IW-6463 treatment was associated with increased cerebral blood, flow, decreased neuroinflammation, increased neuroprotection and improved synaptic and cognitive function, we believe that IW-6463 provides a unique opportunity for the potential treatment of neurodegenerative diseases characterized by progressive neuronal dysfunction and neuronal loss that result in cognitive impairment. By amplifying nitric oxide signaling in the brain, we believe IW-6463 has the potential to simultaneously address multiple facets of neurodegeneration and alter or modify the course of disease.

Clinical Development

IW-6463 is being evaluated in a first-in-human study that initiated in January of 2019 with results expected in the second half of 2019. Our Phase 1 study is not only designed to provide safety, tolerability and pharmacokinetic data on single- and multiple-ascending doses of IW-6463, but also to potentially translate our observed preclinical effects to humans, demonstrating proof of pharmacology. We will evaluate the effects of IW-6463 by using quantitative, objective measures of brain activity, such as qEEG, and a select battery of well-characterized cognitive and motor assessments. After Phase 1, we plan to conduct early proof-of-concept studies in well-defined populations with neurological deficits mechanistically linked to nitric oxide signaling. This stepwise approach provides the opportunity to attain an initial clinical read on the potential of this mechanism to treat neurodegenerative diseases.

Organ-targeted sGC Stimulators in Late Discovery

sGC stimulation is a powerful mechanism that can broadly regulate blood flow, inflammation, fibrosis and metabolism. In diseases that are localized to specific organs or tissues, we believe that our organ-targeting strategy will maximize the efficacy of sGC pharmacology in key organs while reducing the potential for dose-limiting hemodynamic effects sometimes observed with sGC stimulation. Our initial focus is on the liver and the lung due to the clear role of nitric oxide signaling in diseases with high unmet need that affect these organs. We currently have two late stage discovery programs focusing on delivery of a liver-targeted compound for serious and orphan hepatic diseases and a lung-targeted compound for serious and orphan pulmonary diseases.

Liver-targeted sGC Stimulators

In animal models of liver fibrosis treated with systemic sGC stimulators, we have observed reductions in liver fibrosis, inflammation and steatosis, pathophysiological processes that underlie multiple chronic liver diseases. Our solution for these diseases is to modulate the physicochemical properties of a sGC stimulator to target the liver while minimizing systemic exposure. We have developed orally administered sGC stimulators that are designed to selectively partition to the liver to achieve tissue concentrations that are greater than 20-fold higher than corresponding plasma concentrations. Selectivity for liver tissues over plasma is intended to allow us to maximize hepatic pharmacology. We expect to nominate a development candidate in the first half of 2019 and file an IND and/or CTA application thereafter. We believe this new oral sGC stimulator will allow us to fully exploit the potential of nitric oxide signaling pharmacology to treat serious liver diseases.

Lung-targeted sGC Stimulators

Our lung-targeted program is aimed at realizing the full potential of sGC stimulation in pulmonary diseases, by selectively increasing exposure in the lung. We designed lung-retentive, lung-stable sGC stimulators that are delivered via pulmonary administration. Our lead molecule is highly retained in the lung with greater than 50-fold selectivity for lung over plasma in an animal model. In addition, while our lung-targeted stimulator is metabolically stable in the lung, it is unstable in the plasma with rapid systemic clearance. This targeting strategy is intended to maximize the efficacy of sGC pharmacology in the lung while reducing potential dose-limiting systemic effects sometimes observed with sGC stimulation. We expect to nominate a development candidate in the first half of 2019 and file an IND and/or CTA application thereafter.

Intellectual Property

We vigorously protect the intellectual property and proprietary technology that we believe is important to our business, including by pursuing and maintaining U.S. and foreign patents that cover our products and compositions, their methods of use and the processes for their preparation, as well as any other relevant inventions and improvements that are commercially important to the development of our business. We also rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our commercial success depends in part on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions, improvements and know-how related to our business, defend and enforce our patents, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties.

As of February 28, 2019, we had 10 issued U.S. patents, 23 pending U.S. patents applications, seven pending PCT applications, and numerous foreign patents and pending patent applications. The PCT applications are filed under the PCT, an international patent law treaty that provides a unified procedure for filing a single initial patent application to seek patent protection for an invention simultaneously in each of the 152-member states, followed by the process of entering national phase, which requires a separate application in each of the member states in which national patent protection is sought.

The technology underlying our sGC patents and pending patent applications has been developed by us and was not acquired from any in-licensing agreement. We own all of the issued patents and pending applications.

The intellectual property portfolios for our most advanced product candidates as of February 28, 2019, are summarized below.

Olinciguat Patent Portfolio

Our olinciguat patent portfolio in the U.S. includes three U.S. patents, six pending U.S. patent applications and two PCT applications.

One of the U.S. patents, US 9,586,937, which will expire in 2034, is directed to olinciguat and pharmaceutical compositions thereof. The term of this U.S. patent may be eligible for patent term extension as described below. The other two U.S. patents, US 8,748,442 and US 9,139,564, expire in 2031, and provide generic coverage of olinciguat and intermediates used in the preparation of olinciguat, respectively.

We have a pending U.S. application directed to methods of treating SCD with olinciguat, that, if issued, will expire in 2034 or later. Methods of treating other diseases with olinciguat are disclosed in pending PCT and U.S. applications, that if issued, will expire in 2036 or later. We have pending PCT and U.S. applications directed to polymorphs of olinciguat and processes and synthetic intermediates for preparing olinciguat that, if issued, will expire in 2037 or later.

Furthermore, we have two granted European patents, one expiring in 2031 and the other in 2032; two granted Japanese patents, one expiring in 2031 and the other in 2034; two granted Chinese patents, one expiring in 2031 and the other in 2032; and seven issued patents in other foreign jurisdictions, all expiring in 2031. Some of these patents may be eligible for patent term extension depending on the jurisdiction. We also have numerous patent applications pending in foreign jurisdictions.

Praliciguat Patent Portfolio

Our praliciguat patent portfolio in the U.S. includes four U.S. patents, seven pending U.S. patent applications and two PCT applications.

One of the U.S. patents, US 9,481,689, which will expire in 2034, is directed to praliciguat and pharmaceutical compositions thereof. The term of this U.S. patent may be eligible for patent term extension as described below. Two other U.S. patents, US 8,748,442 and US 9,139,564, expire in 2031, and provide generic coverage of praliciguat and intermediates used in the preparation of praliciguat, respectively. The fourth U.S. patent, US 10,183,021 will expire in 2034 and is directed to the treatment of resistant hypertension with praliciguat or combinations of praliciguat and known anti-hypertensives.

We have a pending U.S. application directed to a method of treating DN with praliciguat, that, if issued, will expire in 2034 or later. We have pending PCT and U.S. applications directed to methods of treating other diseases with praliciguat, that if issued, will expire in 2036 or later. We intend to pursue claims to a method of treatment of heart failure with praliciguat at a later date.

We have a pending U.S. application directed to a praliciguat formulation, that, if issued, will expire in 2036 or later. We have a pending PCT and a pending U.S. application directed to processes and synthetic intermediates for preparing praliciguat that, if issued, will expire in 2037 or later.

Furthermore, we have two granted European patents, one expiring in 2031 and the other in 2032; two granted Japanese patents, one expiring in 2031 and the other in 2034; three granted Chinese patents, one expiring in 2031, one in 2032, and the third expiring in 2034; and eight issued patents in other foreign jurisdictions, seven of them expiring in 2031 and one expiring in 2034. Some of these patents may be eligible for patent term extension depending on the jurisdiction. We also have numerous patent applications pending in foreign jurisdictions.

IW-6463 Patent Portfolio

Our patent estate includes pending PCT, U.S. and foreign applications directed to IW-6463, pharmaceutical compositions thereof, and methods of treating several types of neurodegenerative diseases, that, if issued, will expire in 2037 or later.

Additional Intellectual Property

In addition to the patents and patent applications related to praliciguat, olinciguat and IW-6463, we currently have five issued U.S. patents; nine patents granted in foreign jurisdictions, including European patents that have each been validated in several countries; and a number of pending U.S., foreign and PCT applications directed to other sGC stimulator molecules and uses thereof.

Patent Term

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application, assuming that all applicable maintenance or annuity fees are paid. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO, in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent. The duration of foreign patents varies in accordance with provisions of applicable local law, but typically is also twenty years from the earliest effective filing date. However, the actual protection afforded by a patent varies on a product by product basis, from country to country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in that country, and the validity and enforceability of the patent.

In addition, the term of a U.S. patent that covers an FDA-approved drug may be eligible for patent term extension under the Drug Price Competition and the Hatch-Waxman Act, to account for some of the time the drug is under development and regulatory review after the patent is granted. For a drug for which FDA approval is the first permitted marketing of the active ingredient, the Hatch-Waxman Act allows for extension of the term of one U.S. patent that includes at least one claim covering the composition of matter of an FDA-approved drug, an FDA-approved method of treatment using the drug and/or a method of manufacturing the FDA-approved drug. The extended patent term cannot exceed the shorter of five years beyond the non-extended expiration of the patent or 14 years from the date of the FDA approval of the drug. Some foreign jurisdictions, including Europe and Japan, have similar patent term extension provisions, which allow for extension of the term of a patent that covers a drug approved by the applicable foreign regulatory agency.

Trade Secrets and Proprietary Information

In addition to patents, we rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We typically rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. We protect our proprietary information, including trade secrets and know-how, by establishing confidentiality agreements with our commercial partners, collaborators, scientific advisors, employees and consultants and invention assignment agreements with our employees, consultants, scientific advisors and contractors. These agreements generally provide that all confidential information developed or made known during the course of an individual or entities' relationship with us must be kept confidential during and after the relationship. These agreements also typically provide that all inventions resulting from work performed for us or relating to our business and conceived or completed during the period of employment or assignment, as applicable, shall be our exclusive property. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. However, these agreements may be breached, and we may not have adequate remedies for any breach. We also take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary information by third parties. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Government Regulation

In the United States, the FDA regulates medical products, including prescription drugs under the Federal Food, Drug and Cosmetic Act, or FDCA, and its implementing regulations. Products are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant and/or sponsor to a variety of administrative or judicial sanctions, including imposition of a clinical hold, refusal by the FDA to approve applications, withdrawal of an approval, import/export delays, issuance of warning letters and other types of enforcement letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties brought by the FDA, the Department of Justice, State Attorneys General, or other governmental entities.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of extensive pre-clinical laboratory tests and animal tests conducted in accordance with applicable regulations, including Good Laboratory Practices, or GLP, regulations and applicable requirements for the humane use of laboratory animals;
- submission to the FDA of an IND application for human clinical testing, which must become effective before human clinical trials may commence;
- approval by an independent IRB, representing each clinical site before each clinical trial may be initiated;

- performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, GCPs and other clinical-trial related regulations to establish the safety and efficacy of the product for each proposed indication;

- preparation and submission to the FDA of a NDA;

- satisfactory completion of one or more FDA pre-approval inspection(s) of the manufacturing facility or facilities at which the product, or components thereof, are made to assess compliance with current GMP;

- payment of user fees for FDA review of the NDA; and

- FDA acceptance, review and approval of the NDA, which may include an Advisory Committee review.

The development and approval process require substantial time, effort and financial resources and the receipt and timing of any approval is uncertain.

Preclinical and Human Clinical Trials in Support of an NDA

Before testing any drug product candidate in humans, the product candidate must undergo rigorous pre-clinical testing. Pre-clinical studies include laboratory evaluations of the product candidate, as well as in vitro and animal studies to assess the potential safety and efficacy of the product candidate. The conduct of pre-clinical trials must comply with federal regulations and requirements, including GLP regulations. The sponsor must submit the results of the pre-clinical studies, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND, which must become effective before clinical trials may be commenced. The IND will become effective automatically 30 days after receipt by the FDA, unless the FDA raises concerns or questions about the conduct of the trials as outlined in the IND prior to that time. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed.

Clinical trials involve the administration of the product candidate to human subjects under the supervision of qualified investigators in accordance with GCP requirements. Each clinical trial must be reviewed and approved by an IRB for the sites at which the trial will be conducted to ensure that the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative, and must monitor the clinical trial until completed.

Clinical trials are typically conducted in three sequential phases prior to approval, which may overlap or be combined:

- *Phase 1.* Phase 1 clinical trials generally involve a small number of healthy volunteers or disease-affected patients who are initially exposed to a single dose and then multiple doses of the product candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, side effect tolerability and safety of the drug.

- *Phase 2.* Phase 2 clinical trials usually involve studies in a limited patient population to evaluate the efficacy of the product candidate for specific indications, determine dosage tolerance and optimal dosage and identify possible adverse effects and safety risks.

- *Phase 3.* Phase 3 clinical trials generally involve a larger number of patients at multiple sites and are designed to provide the data necessary to demonstrate the effectiveness of the product for

its intended use, its safety in use, to establish the overall benefit/risk profile of the product and to provide an adequate basis for product approval.

- *Phase 4.* Post-approval trials, sometimes referred to as Phase 4 clinical trials, may be conducted after approval to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of drugs approved under accelerated approval regulations, or when otherwise requested by the FDA. Failure to promptly conduct any Phase 4 clinical trials required by the FDA could result in enforcement action or withdrawal of approval.

Progress reports detailing the results of clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. The FDA or the sponsor may suspend or terminate a clinical trial at any time, or the FDA may impose other sanctions on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the requirements of the IRB or if the drug has been associated with unexpected serious harm to patients. There are also requirements related to registration and reporting of certain clinical trials and completed clinical trial results to public registries.

Submission and Review of an NDA

Assuming successful completion of the required pre-clinical and clinical testing, the results of pre-clinical studies and clinical trials, together with detailed information on the product's manufacture, composition, quality controls and proposed labeling, among other things, are submitted to the FDA in the form of an NDA, requesting approval to market the product for one or more indications. The application must be accompanied by a significant user fee payment, which typically increases annually, although waivers may be granted in limited cases (*e.g.*, for products that have received an Orphan Designation).

As an alternative path to FDA approval for modifications to formulations or uses of drugs previously approved by the FDA, an applicant may submit an NDA under Section 505(b)(2) of the FDCA. In contrast to the traditional NDA, which requires submission of a full slate of pre-clinical and clinical data, a Section 505(b)(2) NDA can rely, at least partially, on data from studies not conducted by, or for, the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted.

The FDA has substantial discretion in the approval process and may refuse to accept any application or decide that the data is insufficient for approval, and may require additional preclinical, clinical or other studies before it accepts the filing. If an NDA has been accepted for filing, which occurs 60 days after submission, the FDA sets a user fee goal date that informs the applicant of the specific date by which the FDA intends to complete its review. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act, or PDUFA, for original NDAs, the FDA has ten months from the filing date in which to complete its review of a standard application, and six months from the filing date for an application with priority review. The FDA does not always meet its PDUFA goal dates, and the review process may be significantly extended by FDA requests for additional information or clarification.

The FDA reviews NDAs to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with current GMP to assure and preserve the product's identity, strength, quality and purity. Before approving an NDA, the FDA typically will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facilities comply with current GMP. Additionally, the FDA will frequently inspect one or more clinical trial sites for compliance with GCPs and integrity of the data supporting safety and efficacy.

During the approval process, the FDA will also prepare an integrated benefit risk assessment and determine whether a REMS, is necessary to ensure that the benefits of the drug outweigh the risks and to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the application must submit a proposed REMS. A REMS that includes ETASU can substantially increase the costs of commercializing a drug. The FDA could also require a special warning, known as a boxed warning, to be included in the product label in order to highlight a particular safety risk. The FDA may also convene an advisory committee of external experts to provide input on certain review issues relating to risk, benefit and interpretation of clinical trial data.

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities, FDA will issue either an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug and is accompanied by specific prescribing information for specific conditions of use. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes all of the specific deficiencies in the submission identified by the FDA and may require additional clinical or other data, additional pivotal Phase 3 clinical trial(s) and/or other significant and time-consuming requirements related to clinical trials, pre-clinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either amend the NDA with data to address the raised concerns, resubmit the NDA, addressing all the deficiencies identified in the letter or withdraw the application. Even with submission of this additional information, the FDA may ultimately decide that the re-submitted application does not satisfy the regulatory criteria for approval.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug intended to treat a rare disease or condition affecting fewer than 200,000 individuals in the United States, or in other limited cases. Orphan drug designation must be requested before submitting an NDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process, though companies developing orphan drugs may be eligible for certain incentives, including tax credits for qualified clinical testing. In June 2018, the FDA granted orphan drug designation to our product candidate olinciguat for the treatment of patients with SCD.

Generally, if a product that has orphan drug designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications to market the same active moiety for the same indication for seven years from the date of such approval, except in limited circumstances. Competitors, however, may receive approval of different active moieties for the same indication or obtain approval for the same active moiety for a different indication. If one of our products designated as an orphan drug receives marketing approval for an indication broader than that which is designated, it may not be entitled to orphan drug exclusivity.

Expedited Review and Approval

The FDA has various programs that are intended to expedite development and approval of drugs intended for the treatment of serious or life-threatening diseases or conditions and that demonstrate the potential to address unmet medical needs.

An application may be eligible for a "fast track" designation for a product that is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. Fast track designation provides opportunities for more frequent interactions with the FDA review team and permits FDA to consider sections of the NDA on a rolling basis before the

complete application is submitted. In September 2018, the FDA granted fast track designation to our product candidate praliciguat for the treatment of patients with HFpEF.

In addition, a sponsor can request designation of a product candidate as a "breakthrough therapy." A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, where preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. The FDA must take certain actions with respect to breakthrough therapies, such as holding timely meetings with and providing advice to the product sponsor.

An application may be eligible for "accelerated approval" where the product candidate is intended to treat a serious or life-threatening illness and provides meaningful therapeutic benefit over existing treatments; applications eligible for accelerated approval may be approved on the basis of adequate and well-controlled clinical trials establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA requires a sponsor to conduct confirmatory studies to verify the predicted effect on IMM or another clinical endpoint, and the product may be subject to expedited withdrawal procedures.

Once an NDA is submitted for a product intended to treat a serious condition, the FDA may assign a priority review designation if the FDA determines that the product, if approved, would provide a significant improvement in safety or effectiveness. Under priority review, the FDA must review an application in six months, compared to ten months for a standard review. A product may be eligible for more than one expedited approval program. Even if a product qualifies for one or more of these programs, however, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Furthermore, these expedited review pathways do not change the standards for approval and may not ultimately expedite the development or approval process.

Non-Patent Exclusivity

In addition to patent exclusivity, the holder of the NDA for the listed drug may be entitled to a period of non-patent exclusivity, during which the FDA cannot approve an ANDA for approval of a generic or 505(b)(2) application that relies on the listed drug as protected by regulatory exclusivity.

An NDA for a new chemical entity may receive five years of exclusivity, whereby the FDA will not accept for filing, with limited exceptions, a product seeking to rely upon the FDA's findings of safety or effectiveness for such new chemical entity. An ANDA containing a paragraph IV patent certification can be filed after four years. Alternatively, an NDA may obtain a three-year period of non-patent market exclusivity for a particular condition of approval, or change to a marketed product, such as a new formulation for a previously approved product, if one or more new clinical studies (other than bioavailability or bioequivalence studies) was essential to the approval of the application and was conducted/sponsored by the applicant.

Orange Book Listing

In seeking approval for a drug through an NDA, including a 505(b)(2) NDA, applicants are required to list with the FDA certain patents whose claims cover the applicant's product or an approved method of using the product. Upon approval of an NDA, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, known as the Orange Book. Any applicant who files an ANDA seeking

approval of a generic equivalent version of a drug listed in the Orange Book or a 505(b)(2) NDA referencing a drug listed in the Orange Book must certify, for each patent listed in the Orange Book for the referenced drug, to the FDA that (i) no patent information on the drug product that is the subject of the application has been submitted to the FDA, (ii) such patent has expired, (iii) if such patent has not expired, the date on which it expires or (iv) such patent is invalid, unenforceable, or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. The fourth certification described above is known as a paragraph IV certification. A notice of the paragraph IV certification must be provided to each owner of the patent that is the subject of the certification and to the holder of the approved NDA to which the ANDA or 505(b)(2) application refers. The applicant may also elect to submit a "section viii" statement certifying that its proposed label does not contain (or carves out) any language regarding the patented method-of- use rather than certify to a listed method-of-use patent. This section viii statement does not require notice to the patent holder or NDA owner. There might also be no relevant patent certification.

If the reference NDA holder and patent owners assert a patent challenge directed to one of the Orange Book listed patents within 45 days of the receipt of the paragraph IV certification notice, the FDA is prohibited from approving the ANDA until the earlier of 30 months from the receipt of the paragraph IV certification, expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the applicant. Even if the 45 days expire, a patent infringement lawsuit can be brought and could delay market entry, but it would not extend the FDA-related 30-month stay of approval.

The ANDA or 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the branded reference drug has expired as described above.

Post-Approval Requirements

Following approval of a new product, the manufacturer and the approved product are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims and some manufacturing and supplier changes, are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for marketed products and the establishments where such products are manufactured, as well as new application fees for certain supplemental applications. The FDA may impose a number of post-approval requirements as a condition of approval of an NDA, such as Phase 4 clinical trials or a REMS.

In addition, entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and such state agencies for compliance with current GMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from current GMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain current GMP compliance.

Once an approval is granted, the FDA may issue enforcement letters or withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Corrective action could delay product distribution and require significant time and financial expenditures. Later discovery of previously unknown safety issues with a product, including adverse events of unanticipated severity or frequency, may result in revisions to the approved

labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include:

- restrictions on the marketing or manufacturing of the product, suspension of the approval, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or other enforcement-related letters of clinical holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- consent decrees, corporate integrity agreements, debarment, or exclusion from federal healthcare programs.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications, in accordance with the provisions of the approved label and FDA guidance. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including investigation by federal and state authorities. Additionally, all promotional material must be truthful and non-misleading, and present balanced information regarding the risks and benefits of the drug product.

Review and Approval of New Drug Products in the European Union

In the European Union, medicinal products are subject to extensive pre- and post-market regulation by regulatory authorities at both the European Union and national levels. There may be local legislation in various European Union Member States, which may be more restrictive than the European Union legislation, and we would need to comply with such legislation to the extent it applies.

Clinical Trials

Clinical trials of medicinal products in the European Union must be conducted in accordance with European Union and national regulations and the International Conference on Harmonization, or ICH, guidelines on GCPs. The sponsor must take out a clinical trial insurance policy, and in most European Union countries, the sponsor is liable to provide "no fault" compensation to any study subject injured in the clinical trial.

Prior to commencing a clinical trial, the sponsor must obtain a clinical trial authorization from the competent authority, and a positive opinion from an independent EC. The application for a clinical trial authorization must include, among other things, a copy of the trial protocol and an investigational medicinal product dossier containing information about the manufacture and quality of the medicinal product under investigation. Currently, clinical trial authorization applications must be submitted to the competent authority in each EU Member State in which the trial will be conducted.

Under the new Regulation on Clinical Trials, which is currently expected to take effect in 2019, there will be a centralized application procedure where one national authority takes the lead in reviewing the application and the other national authorities have only a limited involvement. Any substantial changes to the trial protocol or other information submitted with the CTAs must be notified to or approved by the relevant competent authorities and ECs. Medicines used in clinical trials must be manufactured in accordance with cGMP. Other national and European Union-wide regulatory requirements also apply.

During the development of a medicinal product, the EMA and national medicines regulators within the European Union provide the opportunity for dialogue and guidance on the development program. At the EMA level, this is usually done in the form of scientific advice, which is given by the Scientific Advice Working Party of the Committee for Medicinal Products for Human Use, or CHMP. Advice from the EMA is typically provided based on questions concerning, for example, quality (chemistry, manufacturing and controls testing), nonclinical testing and clinical studies, and pharmacovigilance plans and risk-management programs. Given the current stage of the development of our product candidates, we have not yet sought any such advice from the EMA. However, to the extent that we do obtain such scientific advice in the future, such advice will, in accordance with the EMA's policy, not be legally binding on the EMA and the European Commission, and the European Commission may still not approve any future marketing authorization application, or MAA, of the product concerned even if we followed the scientific advice received by the CHMP.

Marketing Authorizations

In order to market a new medicinal product in the European Union, a company must submit and obtain approval from regulators of a MAA. The process for doing this depends, among other things, on the nature of the medicinal product.

The centralized procedure results in a single marketing authorization, or MA, granted by the European Commission that is valid across the EEA (*i.e.*, the European Union as well as Iceland, Liechtenstein and Norway). The centralized procedure is compulsory for medicinal products for human use that are: (i) derived from certain biotechnology processes, such as genetic engineering, (ii) contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative diseases, autoimmune and other immune dysfunctions and viral diseases, (iii) officially designated orphan medicines and (iv) advanced-therapy medicines, such as gene therapy, somatic cell therapy or tissue-engineered medicines. The centralized procedure may at the request of the applicant also be used in certain other cases.

Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA by the EMA is 210 days. This excludes so-called clock stops, during which additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. At the end of the review period, the CHMP provides an opinion to the European Commission. If this opinion is favorable, the Commission may then adopt a decision to grant an MA. In exceptional cases, the CHMP might perform an accelerated review of an MAA in no more than 150 days. This is usually when the product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation.

The European Commission may grant a so-called "conditional marketing authorization" prior to obtaining the comprehensive clinical data required for an application for a full marketing authorization. Such conditional marketing authorizations may be granted for product candidates (including medicines designated as orphan medicinal products), if (i) the risk-benefit balance of the product candidate is positive, (ii) it is likely that the applicant will be in a position to provide the required comprehensive clinical trial data, (iii) the product fulfills an unmet medical need and (iv) the benefit to public health of the immediate availability on the market of the medicinal product concerned outweighs the risk inherent in the fact that additional data are still required. A conditional marketing authorization may contain specific obligations to be fulfilled by the marketing authorization holder, including obligations with respect to the completion of ongoing or new studies, and with respect to the collection of pharmacovigilance data. Conditional marketing authorizations are valid for one year, and may be renewed annually, if the risk-benefit balance remains positive, and after an assessment of the need for additional or modified conditions and/or specific obligations. The timelines for the centralized procedure described above also apply with respect to the review by the CHMP of applications for a conditional marketing authorization.

Data Exclusivity

Marketing authorization applications for generic medicinal products do not need to include the results of preclinical and clinical trials, but instead can refer to the data included in the marketing authorization of a reference product for which regulatory data exclusivity has expired. If a marketing authorization is granted for a medicinal product containing a new active substance, that product benefits from eight years of data exclusivity, during which generic MAAs referring to the data of that product may not be accepted by the regulatory authorities, and a further two years of market exclusivity, during which such generic products may not be placed on the market. The two-year period may be extended to three years if during the first eight years a new therapeutic indication with significant clinical benefit over existing therapies is approved.

Pediatric Development

In the European Union, companies developing a new medicinal product must agree to a Paediatric Investigation Plan, or PIP, with the EMA and must conduct pediatric clinical trials in accordance with that PIP, unless a deferral or waiver applies, (*e.g.*, because the relevant disease or condition occurs only in adults). The MAA for the product must include the results of pediatric clinical trials conducted in accordance with the PIP, unless a waiver applies, or a deferral has been granted, in which case the pediatric clinical trials must be completed at a later date. Where the MAA includes the results of all pediatric studies conducted in accordance with the PIP and the results are reflected in the approved summary of product characteristics, the holder of a patent or supplementary protection certificate is entitled to receive a six month extension of the protection under a supplementary protection certificate or, in the case of orphan medicinal products, the product is eligible for a two year extension of the orphan market exclusivity. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

Post-Approval Controls

The holder of a marketing authorization must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance, or QPPV, who is responsible for oversight of that system. Key obligations include expedited reporting of suspected serious adverse reactions and submission of periodic safety update reports, or PSURs.

All new MAAs must include a risk management plan, or RMP, describing the risk management system that the company will put in place and documenting measures to prevent or minimize the risks associated with the product. The regulatory authorities may also impose specific obligations as a condition of the marketing authorization. Such risk-minimization measures or post-authorization obligations may include additional safety monitoring, more frequent submission of PSURs, or the conduct of additional clinical trials or post-authorization safety studies. RMPs and PSURs are routinely available to third parties requesting access, subject to limited redactions. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited.

Direct-to-consumer advertising of prescription medicines is also prohibited in the European Union. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each EU Member State and can differ from one country to another.

Pricing and Reimbursement in the European Union

Governments influence the price of medicinal products in the European Union through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems

under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies.

Other EU Member States allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on healthcare costs in general, particularly prescription medicines, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

Brexit and the Regulatory Framework in the United Kingdom

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union (commonly referred to as "Brexit"). Thereafter, on March 29, 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Treaty on European Union. The withdrawal of the United Kingdom from the European Union is expected to take effect on March 30, 2019. The EU and the UK are currently in the process of negotiating a withdrawal agreement, a draft of which includes a transition period until the end of 2020. It is uncertain if the negotiations will result in agreement and it is uncertain if a transition period will apply. The EMA is working under the assumption that the UK will become a third country as of March 30, 2019. Since the regulatory framework for pharmaceutical products in the United Kingdom covering quality, safety and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales and distribution of pharmaceutical products is derived from European Union directives and regulations, immediately following Brexit, it is expected that the United Kingdom's regulatory regime will remain aligned to European regulations. It remains to be seen how, if at all, Brexit will impact regulatory requirements for product candidates and products in the United Kingdom. In the longer term, Brexit could materially impact the future regulatory regime which applies to products and the approval of product candidates in the United Kingdom.

Rest of World Regulation

For other countries outside of the United States and the European Union, such as China and Japan, the requirements governing clinical trials, marketing authorization, commercial sales and distribution of our products vary from jurisdiction to jurisdiction. Although many of the issues discussed above with respect to the United States and the European Union apply similarly in the context other geographies, the approval process varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Other Healthcare Laws and Regulations

In addition to FDA restrictions on the marketing of pharmaceutical products, other U.S. federal and state healthcare regulatory laws restrict business practices in the pharmaceutical industry. These laws include, but are not limited to the following:

- The federal Anti-Kickback Statute prohibits, among other things, any person or entity from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federally funded healthcare programs, such as Medicare and Medicaid. The term

"remuneration" has been broadly interpreted to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers, formulary managers and beneficiaries on the other hand. The majority of states also have anti-kickback laws, which establish similar prohibitions and in some cases may apply to items or services reimbursed by any third-party payor, including commercial insurers, or to self-pay patients;

- The federal civil and criminal false claims laws, including, without limitation, the federal civil monetary penalties law and the civil False Claims Act, prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, false or fraudulent claims for payment of federal funds and knowingly making, or causing to be made, a false record or statement material to a false or fraudulent claim to avoid, decrease or conceal an obligation to pay money to the federal government. Violations of the civil False Claims Act can result in very significant monetary penalties and treble damages. Many states also have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of payor;

- HIPAA, imposes criminal liability for executing or attempting to execute a scheme to defraud any healthcare benefit program and creates federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

- The federal transparency requirements under the Physician Payments Sunshine Act require certain manufacturers of drugs, devices, biologics and medical supplies reimbursed under Medicare, Medicaid, or the Children's Health Insurance Program to report information related to payments and other transfers of value provided to physicians and teaching hospitals and physician ownership and investment interests. Failure to submit timely, accurately and completely the required information may result in civil monetary penalties;

- Data privacy and security regulation by both the federal government and the states in which we conduct business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, including the Final HIPAA Omnibus Rule published on January 25, 2013, impose specified requirements relating to the privacy, security and transmission of individually identifiable health information held by covered entities and their business associates. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, thus complicating compliance efforts; and

- The FCPA prohibits any United States individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations. Activities that violate the FCPA, even if they occur wholly outside the United States, can result in criminal and civil fines, imprisonment, disgorgement, oversight and debarment from government contracts.

We will be required to spend substantial time and money to ensure that our business arrangements with third parties comply with applicable healthcare laws and regulations. Recent healthcare reform legislation has strengthened these federal and state healthcare laws. For example, the Affordable Care

Act amends the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes to clarify that liability under these statutes does not require a person or entity to have actual knowledge of the statutes or a specific intent to violate them. Moreover, the Affordable Care Act provides that the government may assert that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act. Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws.

Violations of these laws can subject us to criminal, civil and administrative sanctions including monetary penalties, damages, fines, disgorgement, individual imprisonment and exclusion from participation in government funded healthcare programs, such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and reputational harm, and we may be required to curtail or restructure our operations.

Coverage, Reimbursement and Pricing in the United States

Significant uncertainty exists as to the coverage and reimbursement status of any products for which we obtain regulatory approval. The United States government, state legislatures and foreign governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded drug and biologic products. In the United States and markets in other countries, patients who are prescribed products generally rely on third-party payors to reimburse all or part of the associated healthcare costs. If approved, sales of our product candidates will depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care plans, private health insurers and other organizations.

In the United States, the process for determining whether a third-party payor will provide coverage for a drug product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication, or place products at certain formulary levels that result in lower reimbursement levels and higher cost-sharing obligation imposed on patients. A decision by a third-party payor not to cover our product candidates could reduce physician utilization of a product. Moreover, a third-party payor may not provide adequate third-party reimbursement to enable a manufacturer to maintain price levels sufficient to realize an appropriate return on its investment in product development. Additionally, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process usually requires manufacturers to provide scientific and clinical support for the use of their products to each payor separately and is a time-consuming process.

An increasing emphasis on cost containment measures in the United States will likely increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future. Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of pharmaceutical products, in addition to questioning safety and efficacy. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover that product after FDA approval or, if they do, the level of payment may not be sufficient to allow a manufacturer to sell its product at a profit.

In addition, in many foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. The downward pressure on healthcare costs in general, particularly prescription products, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross border imports from low-priced markets exert a commercial pressure on pricing within a country.

Health Care Reform

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and devices and to spur innovation, but its ultimate implementation is uncertain. In addition, in August 2017, the FDA Reauthorization Act was signed into law, which reauthorized the FDAs user fee programs and included additional drug and device provisions that build on the Cures Act.

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products and services, implementing reductions in Medicare and other healthcare funding and applying new payment methodologies. For example, the Affordable Care Act, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; introduced a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans; imposed mandatory discounts for certain Medicare Part D beneficiaries as a condition for manufacturers' outpatient drugs coverage under Medicare Part D; subjected drug manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs; imposed a new federal excise tax on the sale of certain medical devices; created a new Patient Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at the CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending. Since its enactment, there have been judicial and Congressional challenges to certain aspects of the Affordable Care Act, and we expect there will be additional challenges and amendments to the Affordable Care Act in the future. In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act to reduce healthcare expenditures. These changes include the Budget Control Act of 2011, which, among other things, included aggregate reductions of Medicare payments to providers of 2% per fiscal year and that will remain in effect through 2025 unless additional action is taken by Congress; and the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. More recently, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for pharmaceutical and biologic products. Individual states in the United States have become increasingly active in passing legislation and implementing regulations designed to control biotechnology and pharmaceutical product pricing and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services.

Competition

The biopharmaceutical industry is highly competitive within and across therapeutic categories and indications. There are many public and private biopharmaceutical companies, universities, government agencies and other research organizations actively engaged in the research and development of products that may be similar to our product candidates or address similar markets. In addition, the number of companies seeking to develop and commercialize products and therapies competing with our product candidates is likely to increase. However, we seek to build our portfolio with key differentiating attributes to provide a competitive advantage in the markets we target. The success of all of our product candidates, if approved, is likely to be a result of their efficacy, safety, convenience, price, the level of generic competition and the availability of reimbursement from government and other third-party payors.

The sGC stimulator class of compounds has one major participant besides us. Bayer/Merck have an active collaboration on sGC modulators and may be targeting some of the same indications through a similar mechanism of action. They have one approved sGC stimulator, ADEMPAS® (riociguat), indicated for PAH and CTEPH, and an investigational sGC stimulator, vericiguat, in clinical development for heart failure. In addition, they have three sGC activator programs in early clinical development for chronic kidney disease, pulmonary hypertension, and acute respiratory distress syndrome.

Many of our competitors stated below may have greater financial resources and broader expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved medicines than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. These competitors also compete with us in establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Olinciguat

In SCD, there are two approved products indicated to treat acute complications, such as painful crises, hydroxyurea (DROXIA® or SIKLOS®, as well as other generic forms) and ENDARI®, an amino acid l-glutamine. We are aware of the following companies engaged in the clinical development of products for the chronic treatment of SCD: Novartis, which is developing crizanlizumab (Phase 2/3), an IV-infusion anti-P-selectin monoclonal antibody; Global Blood Therapeutics, which is developing voxelotor (Phase 3), a hemoglobin modulator; AstraZeneca, which is developing ticagrelor (Phase 3), a P2Y12 platelet inhibitor in pediatric and adolescent patients; Micelle BioPharma, which is developing Altemia (Phase 3), a mixture of fatty acids; Novartis, which is developing ILARIS® (canakinumab) (Phase 2), a fully human monoclonal anti-human interleukin-1b antibody; Imara, which is developing IMR-687 (Phase 2), a phosphodiesterase-9 inhibitor, or PDE9i; and Pfizer, which is developing PF-04447943 (Phase 1/2), a PDE9i. We are also aware of the following companies engaged in the clinical development of products for acute treatments in SCD: Pfizer, which is developing rivipansel (Phase 3), a pan-selectin inhibitor; Prolong Pharmaceuticals, which is developing Sanguinate (Phase 2), a PEGylated hemoglobin; and Modus Therapeutics, which is developing sevuparin (Phase 2), a cell

adhesion molecule inhibitor. We may also face competition from one-time treatments such as HSCT, gene editing and gene therapy. We are aware of the following companies engaged in the clinical development of one-time treatments: bluebird bio is currently conducting a Phase 2 study with their product, LentiGlobin®, for patients with severe SCD; and CRISPR Therapeutics/Vertex Pharmaceuticals is conducting a Phase 1/2 study with their product, CTX-001.

Praliciguat

We are not aware of any therapies approved by the FDA or EMA for the treatment of HFpEF. We are aware of the following companies engaged in the clinical development of products for the treatment of HFpEF: Novartis is currently engaged in a Phase 3 program assessing ENTRESTO® a fixed-dose combination of sacubitril, a neprilysin inhibitor and valsartan, an angiotensin II receptor blocker, for the treatment of HFpEF. ENTRESTO is currently approved for HFrEF and it is possible that it is or will be used off-label in patients with HFpEF. Eli Lilly and Boehringer Ingelheim are currently conducting a Phase 3 program in HFpEF with JARDIANCE®, a sodium-glucose co-transporter-2 inhibitor or SGLT2 inhibitor. JARDIANCE is currently approved as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. AstraZeneca is currently conducting a Phase 3 program in HFpEF with FARXIGA®, a SGLT2 inhibitor. FARXIGA is currently approved as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. AstraZeneca is also conducting a Phase 2 trial in HFpEF with AZD4831, a myeloperoxidase modulator. Bayer and Merck are currently conducting a large Phase 2 study with vericiguat, an sGC stimulator, assessing health-related quality of life in patients with HFpEF. Bayer and Merck have previously completed a smaller Phase 2 study with vericiguat in patients with HFpEF in which they observed improvement in disease-specific health status.

There are three approved products in the United States to treat DN, none of which have demonstrated a cessation of disease progression:

AVAPRO® (irbesartan), an angiotensin II receptor antagonist, indicated to reduce the rate of progression of nephropathy in patients with type 2 diabetes and hypertension. CAPOTEN® (captopril), angiotensin I converting enzyme inhibitor, indicated to reduce the rate of progression in patients with Type 1 insulin-dependent diabetes mellitus and retinopathy. COZAAR® (losartan), an angiotensin II receptor blocker, indicated to treat DN in patients with type 2 diabetes mellitus and a history of hypertension. We are aware of the following companies engaged in the clinical development of products for the treatment of DN:

AstraZeneca has a Phase 3 study ongoing with FARXIGA®, an SGLT2 inhibitor, assessing renal outcomes and cardiovascular mortality in patients with chronic kidney disease. Eli Lilly and Boehringer Ingelheim are currently conducting a Phase 3 program in DN with JARDIANCE. Janssen has an ongoing Phase 3 program assessing INVOKANA®, a SGLT2 inhibitor, in patients with DN. In July 2018, Janssen announced that they would be stopping the Phase 3 CREDENCE study early based on positive efficacy findings based on a recommendation from the study's Independent Data Monitoring Committee. INVOKANA is currently approved as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. Bayer has a Phase 3 program ongoing for the investigational product finerenone, a mineralocorticoid receptor antagonist, assessing its effect in patients with DN.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize medicines that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any medicines that we may develop. Our competitors also may obtain FDA or other regulatory approval for their medicines more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able

to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic medicines.

Manufacturing

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We depend on third-party CMOs for all of our requirements of raw materials, drug substance and drug product for our ongoing clinical trials of praliciguat, olinciguat and IW-6463 and our non-clinical research. We intend to continue to rely on CMOs for the supply of praliciguat, olinciguat and IW-6463 for all stages of clinical development and commercialization, as well as for the supply of any other product candidates that we may identify. We require all of our CMOs to conduct manufacturing activities in compliance with current GMP requirements.

We believe the manufacture of praliciguat, olinciguat and IW-6463 drug substance and drug product is from readily available raw materials and the processes are amenable to large-scale production and do not require unusual equipment or handling. We believe adequate supply of praliciguat, olinciguat and IW-6463 drug substance and drug product is readily available from our current CMOs to satisfy our immediate clinical and non-clinical demands. We obtain our supplies from these CMOs on a purchase order basis and do not have arrangements in place for long-term supply or redundant supply of praliciguat, olinciguat or IW-6463; however, we are working with our CMOs to implement improvements to our drug substance and drug product manufacturing processes to further ensure product capacity adequate to meet further development and commercial demands.

Facilities

Following the separation, we plan to occupy approximately 116,000 rentable square feet of office and laboratory space in Cambridge, Massachusetts, comprising a portion of the facilities currently occupied by Ironwood. While a portion of such space is being altered for our use, we intend to sublease another portion as temporary swing space from Ironwood. We are negotiating with the Landlord to enter into a direct lease for our office and lab space. If we were to enter into a direct lease with the Landlord, we expect that this lease would expire in June 2029. If we are unable to finalize a direct lease with the Landlord by the time of the separation or if we reach an agreement with the Landlord prior to the separation but the direct lease has not been effectuated because required third-party consents are outstanding, we and Ironwood plan to enter into a sublease for this office and lab space. We expect that such a sublease would expire when the direct lease is effectuated, or, if no direct lease is entered into, at the end of Ironwood's current lease, which ends in January 2025. We believe these facilities will be suitable and adequate for our needs for the near term.

Employees

Following the separation, we expect to have approximately 140 employees, 57 of whom hold M.D. or Ph.D. degrees. Approximately 35 employees are expected to be in discovery research, 59 in our drug development organization, 11 in our strategy and corporate development organizations and 35 in general and administrative functions. None of our employees are expected to be subject to a collective bargaining agreement or represented by a trade or labor union. We consider our employee relations to be good.

Legal Proceedings

We are not a party to any material legal proceedings at this time. From time to time, we may be subject to various legal proceedings and claims, which may have a material adverse effect on our financial position or results of operations.

MANAGEMENT

Directors and Executive Officers

The following table sets forth the names and ages, as of February 28, 2019, and titles of the individuals we currently expect to serve as our executive officers and members of our board of directors at the time of the separation. Certain biographical information with respect to those executive officers and directors follows the table.

Name	Age	Position
Peter M. Hecht, Ph.D.	55	Chief Executive Officer and Director
Mark G. Currie	64	President
William Huyett	63	Chief Financial Officer
Kevin Churchwell	57	Director
George Conrades	80	Director
Marsha Fanucci	65	Director
Ole Isacson	59	Director
Stephanie Lovell	59	Director
Terrance McGuire	62	Director
Michael Mendelsohn	63	Director
Amy Schulman	58	Director

Executive Officers

Peter M. Hecht, Ph.D. will serve as our chief executive officer and a member of our board of directors upon completion of this separation. Dr. Hecht currently serves as Ironwood's chief executive officer and has been a member of its board of directors since its founding in 1998. Under Dr. Hecht's leadership, Ironwood grew from nine Ph.D. scientists to a commercial biotechnology company. Prior to founding Ironwood, Dr. Hecht was a research fellow at Whitehead Institute for Biomedical Research. Dr. Hecht serves on the advisory board of Ariadne Labs. Dr. Hecht earned a B.S. in mathematics and an M.S. in biology from Stanford University, and holds a Ph.D. in molecular biology from the University of California at Berkeley. Dr. Hecht's experiences as the founder of a commercial biotechnology company and his tenure as its chief executive officer and a board member make him a valuable member of our board of directors.

Mark G. Currie will serve as our President upon completion of this separation. Dr. Currie currently serves as Ironwood's senior vice president, chief scientific officer and president of research and development and has held these positions since 2002. Prior to joining Ironwood, Dr. Currie directed cardiovascular and CNS disease research as vice president of discovery research at Sepracor Inc. Previously, Dr. Currie initiated, built and led discovery pharmacology and also served as director of arthritis and inflammation at Monsanto Company. Dr. Currie earned a B.S. in biology from the University of South Alabama and holds a Ph.D. in cell biology from the Bowman-Gray School of Medicine of Wake Forest University.

William Huyett will serve as our chief financial officer upon completion of this separation. Mr. Huyett currently serves as Ironwood's chief operating officer and has held the position since December 2017. Mr. Huyett previously spent 30 years with McKinsey and Company, Inc., in its Washington D.C., Zurich, and Boston offices. During his tenure at McKinsey, Mr. Huyett served clients in the life sciences, industrial and other technology-intensive sectors. He has been a Senior Partner Emeritus at McKinsey since December 2015, and was previously a Senior Partner from July 1998 to December 2015. As a Senior Partner, Mr. Huyett was a leader in the firm's pharmaceutical and medical products and its strategy and corporate finance practices. He also served on McKinsey's Shareholder's Council (its board of directors), serving as chair of its Finance Committee. Prior to joining McKinsey,

Mr. Huyett held a variety of line management positions in the automation industry with Allen-Bradley (now Rockwell Automation, Inc.). Mr. Huyett is non-executive Chair of the board of directors of the London Stock Exchange-listed Georgia Healthcare Group PLC and an independent Director of the LSE-listed Georgia Capital. He serves on several not-for-profit boards, including The Rockefeller University and the Marine Biological Laboratory in Woods Hole. He earned his B.S. in electronics engineering and his M.B.A. from the University of Virginia.

Non-management Directors

We expect to appoint the following non-management directors to serve on our board of directors upon completion of the separation:

Kevin Churchwell will serve as a member of our board of directors upon completion of this separation. Dr. Churchwell has been the President of Boston Children's Hospital since September of 2018, and executive vice president of health affairs and chief operating officer at Boston Children's Hospital since August of 2013. Before joining Boston Children's Hospital, Dr. Churchwell was the chief executive officer of Nemours/Alfred I. duPont Hospital for Children from November 2010 to July 2013. Prior to that, Dr. Churchwell was the chief executive officer and executive director for the Monroe Carrell Jr. Children's Hospital, part of the Vanderbilt University Medical Center, from July 2007 to October 2010. Since 1993, Dr. Churchwell has been a clinician and faculty member at Boston Children's Hospital, Vanderbilt University Medical Center and was recently appointed the Robert and Dana Smith Associate Professor of Anesthesia at Harvard Medical School.

Dr. Churchwell graduated with a B.S in Biology from the Massachusetts Institute of Technology and received his M.D. from Vanderbilt Medical School. We believe that Dr. Churchwell's vast experience as a clinician, researcher, hospital executive and administrator provides important and valuable perspective to our board of directors in designing and implementing patient treatments.

George Conrades will serve as a member of our board of directors upon completion of this separation. Mr. Conrades has served as an executive advisor to Akamai Technologies, Inc., or Akamai, since June 2018. Previously, Mr. Conrades was the chairman of Akamai from August 2010 until March 2018, and executive chairman from 2005 to 2010. Mr. Conrades was both chairman and chief executive officer of Akamai from 1999 to 2005 and served as a director from 1998 to March 2018. Mr. Conrades has been a managing partner at Longfellow Venture Partners since July 2009, and was a venture partner of Polaris Venture Partners from 1998 to 2012, where he is now partner emeritus. From 1997 to 1998, Mr. Conrades served as executive vice president of GTE and president of GTE Intemetworking. Mr. Conrades served as chief executive officer of BBN Corporation from 1994 until its acquisition by GTE Intemetworking in 1997. Prior to joining BBN Corporation, Mr. Conrades was a senior vice president at International Business Machines Corporation, or IBM, and a member of IBM's corporate management board. Mr. Conrades has served as a director of Oracle Corporation since 2008 and was a director of Harley Davidson, Inc. from 2002 to April 2016. Mr. Conrades previously served as a director of Ironwood from 2005 until April 2016. Additionally, Mr. Conrades currently serves as life trustee on the board of Ohio Wesleyan University.

Mr. Conrades received a B.A. in physics and math from Ohio Wesleyan University and an M.B.A. from the University of Chicago. Mr. Conrades' experience as chief executive officer of two public companies and as division president at two additional high technology companies, coupled with his past and present directorships and trusteeships, make him an important member of our board of directors, particularly with respect to our corporate governance, growth strategy and business plans.

Marsha Fanucci currently serves as a member of the Ironwood board of directors and, upon the completion of the separation, will step down from the Ironwood board and will join our board of directors. Ms. Fanucci served as senior vice president and chief financial officer of Millennium Pharmaceuticals, Inc. from July 2004 through January 2009, where she was responsible for corporate

strategy, treasury, financial planning and reporting and operations. While at Millennium, she also served as vice president, finance and corporate strategy and vice president, corporate development and strategy. Previously, she was vice president of corporate development and strategy at Genzyme Corporation, a biotechnology company, from 1998 to 2000. From 1987 to 1998, Ms. Fanucci was employed at Arthur D. Little, Inc. where she most recently served as vice president and director.

In addition to the Ironwood board, Ms. Fanucci serves on the board of directors of Alnylam Pharmaceuticals, Inc. and Syros Pharmaceuticals, Inc. Previously, she served on the board of directors of Momenta Pharmaceuticals, Inc. She received her B.S. in pharmacy from West Virginia University and her M.B.A. from Northeastern University. Because of her extensive financial experiences at Millennium Pharmaceuticals and Genzyme in addition to her current and former directorships at Ironwood, Syros Pharmaceuticals, Alnylam Pharmaceuticals and Momenta Pharmaceuticals, we believe that Ms. Fanucci provides valuable industry insight and essential financial expertise as we execute our corporate objectives.

Ole Isacson will serve as a member of our board of directors upon completion of this separation. Dr. Isacson has been professor of neurology and neuroscience at Harvard Medical School since 2002. Prior to his current role, Dr. Isacson served in a number of academic roles at Harvard Medical School. Since its founding in 2005, Dr. Isacson has been principal faculty of the Harvard Stem Cell Institute and is the founding director of the Neuroregeneration Institute at McLean Hospital, where he has served as a director since 2010. From September 2016 to May 2017, Dr. Isacson was the chief scientific officer and senior vice president for Pfizer Inc.'s Neuroscience and Pain Worldwide R&D division.

Dr. Isacson received his Medical Bachelor and Doctor of Medicine degrees from the University of Lund in Sweden. Dr. Isacson brings significant medical and scientific insight to our board of directors, as well as experience leading the R&D function of a multinational biopharmaceutical company.

Stephanie Lovell will serve as a member of our board of directors upon completion of this separation. Ms. Lovell has served as the executive vice president, Medicare and chief legal officer for Blue Cross Blue Shield of Massachusetts, Inc., or BCBSMA, since July 2015. Ms. Lovell previously served as the senior vice president and general counsel of BCBSMA from December 2011 to July 2015. Prior to BCBSMA, Ms. Lovell was the senior vice president of administration and general counsel for Boston Medical Center from March 2007 to December 2011. She also previously served as the first assistant attorney general in the Massachusetts Office of the Attorney General and as the executive director for the Massachusetts State Ethics Commission. Ms. Lovell currently serves as a director of the New England Law Foundation and The Partnership, Inc., and as a trustee of the Massachusetts Taxpayers Foundation. She also chairs the grants committee of the Boston Bar Foundation and is a member of the investment committee of Goodwill Industries of Massachusetts.

Ms. Lovell received a B.A. in philosophy from Hamilton College and a J.D. from Boston University School of Law. Ms. Lovell brings to our board of directors invaluable experience in the healthcare payer and reimbursement markets, as well as government and regulatory affairs, providing important perspective and insight to our board of directors.

Terrance McGuire currently serves as a member of the Ironwood board of directors and, upon the completion of the separation, will step down from the Ironwood board and will join our board of directors. Mr. McGuire was a co-founder and is currently a general partner of Polaris Partners. Prior to starting Polaris Partners in 1996, Mr. McGuire spent seven years at Burr, Egan, Deleage & Co., investing in early stage medical and information technology companies. In addition to the Ironwood board, he serves on the board of directors of Arsanis, Inc. and Pulmatrix, Inc. and several private companies. Previously, he served on the boards of Acceleron Pharma, Inc., Akamai Technologies, Inc., Aspect Medical Systems, Inc., Cubist Pharmaceuticals, Inc., deCODE genetics, Inc., Trevena, Inc. and various private companies.

Mr. McGuire is the former chairman of the National Venture Capital Association, which represents ninety percent of the venture capitalists in the U.S., chairman of the board of the Thayer School of Engineering at Dartmouth College, and a member of the boards of The David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and The Arthur Rock Center for Entrepreneurship at Harvard Business School. Mr. McGuire earned a B.S. in physics and economics from Hobart College, an M.S. in engineering from The Thayer School at Dartmouth College, and an M.B.A from Harvard Business School. Mr. McGuire brings to our board extensive experience as a venture capitalist focused on the biotechnology industry, as well as many years of experience as a director of biotechnology companies guiding them in the execution of their corporate strategy and objectives.

Michael Mendelsohn will serve as a member of our board of directors upon completion of this separation. Dr. Mendelsohn has been the executive chairman and president of Cardurion Pharmaceuticals since May 2016 and is the president of the Mendelsohn Consulting Group LLC, which he formed September 4, 2013. Since April, 2015, Dr. Mendelsohn has been a senior advisor and consultant to the chief medical and scientific officer of Takeda Pharmaceutical Co. Ltd. and, since December, 2014, has served as senior advisor and consultant and a member of the pharmaceuticals advisor committee for the chief scientific officer and president of R&D at Ironwood. Dr. Mendelsohn was previously on the board of directors of Regado Biosciences Inc. from November 2013 through May 2015. From May 2014 until July 2017, Dr. Mendelsohn was a venture partner for SV Health Investors. Prior to that, Dr. Mendelsohn was the senior vice president and global head of cardiovascular research at Merck Research Laboratories from June 2010 to November 2013. Between 1993 and 2010, Dr. Mendelsohn served in various roles at Tufts Medical Center and Tufts University School of Medicine, including as founder and executive director of the Molecular Cardiology Research Institute and as chief scientific officer from 2008 to 2010. Previously, Dr. Mendelsohn was a member of the cardiovascular faculty at Brigham and Women's Hospital and Harvard Medical School. Dr. Mendelsohn serves as a director of Foghorn Therapeutics, Inc.

Dr. Mendelsohn received a B.A. in chemistry and English from Amherst College and a M.D. from Harvard Medical School. Dr. Mendelsohn brings extensive experience to our board of directors as a clinician and scientist, along with his insights as a consultant to lead researchers for multinational biopharmaceutical companies.

Amy Schulman currently serves as a member of the Ironwood board of directors and, upon the completion of the separation, will step down from the Ironwood board and will join our board of directors. In July 2015, Ms. Schulman co-founded and joined Lyndra, Inc. as chief executive officer. In February 2017, she became chief executive officer of Olivo Laboratories, LLC. Ms. Schulman is also a senior lecturer at Harvard Business School, where she was appointed to the faculty in July 2014, and has been a partner at Polaris Partners since August 2014. Ms. Schulman served as chief executive officer of Arsia Therapeutics, Inc. from August 2014 to November 2016 when Arsia was acquired by Eagle Pharmaceuticals, Inc. Ms. Schulman was previously the executive vice president and general counsel of Pfizer Inc. from May 2008 to July 2014, where she also served as the business unit lead for Pfizer's consumer healthcare business from April 2012 to December 2013. Before joining Pfizer, she was a partner at the law firm DLA Piper, where she was a member of the board and executive policy committees.

In addition to the Ironwood board, Ms. Schulman also serves as a director of Arsanis, Inc. and Alnylam Pharmaceuticals, Inc. Previously, she served as a director of BIND Therapeutics, Inc. and Blue Buffalo Pet Products, Inc. Ms. Schulman graduated with honors with B.A. degrees in philosophy and English from Wesleyan University, where she was elected to Phi Beta Kappa, and earned her J.D. from Yale Law School in 1989. Ms. Schulman brings to our board of directors extensive leadership experience in the biotechnology industry in areas of great importance to the success of our business as

we execute on our corporate objectives, including commercial strategy, corporate development and capability building.

Board Composition and Independence

Our business and affairs are managed under the direction of our board of directors. Upon completion of the separation, our board of directors consists of nine members. Our directors hold office until their successors have been elected and qualified or until their earlier death, resignation or removal. There are no family relationships among any of our directors or executive officers. It is anticipated that a majority of our board of directors will satisfy the independence standard established by the listing standards of Nasdaq Global Market as well as the corporate governance principles to be adopted by our board of directors.

Board Committees

Upon the completion of the separation, our board of directors will have three standing committees: an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate pursuant to a charter to be adopted by our board of directors.

Audit Committee

The responsibilities of the Audit Committee will be more fully described in our Audit Committee Charter and are expected to include, among other duties:

- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements, earnings releases and related disclosures;
- reviewing and discussing with management and our independent registered public accounting firm our internal controls and internal auditing procedures, including any material weaknesses in either;
- discussing our accounting policies and all material correcting adjustments with our management and our independent registered public accounting firm;
- discussing with our management and our independent registered public accounting firm any significant risks facing the company and the related mitigation plans, as well as monitoring our internal control over financial reporting and disclosure controls and procedures;
- appointing, overseeing and approving the compensation for and, when necessary, terminating our independent registered public accounting firm;
- approving all audit services and all permitted non-audit, tax and other services to be performed by our independent registered public accounting firm, in each case, in accordance with the audit committee's pre-approval policy;
- discussing with the independent registered public accounting firm its independence and ensuring that it receives the written disclosures regarding these communications required by the Public Company Accounting Oversight Board;
- reviewing and approving all transactions or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds $120,000 and in which any of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements with directors and executive officers;

- recommending whether the audited financial statements should be included in our annual report and preparing the audit committee report required by SEC rules;
- reviewing all material communications between our management and our independent registered public accounting firm;
- reviewing, updating and recommending to our board approval of our code of business conduct and ethics; and
- establishing procedures for the receipt, retention, investigation and treatment of accounting related complaints and concerns.

Upon completion of the distribution, the Audit Committee will consist entirely of independent directors, and we intend that each will meet independence requirements set forth in the listing standards of the Nasdaq Global Market and Rule 10A under the Exchange Act. Each member of the Audit Committee will be financially literate and have accounting or related financial management expertise as such terms are interpreted by our board of directors in its business judgment. Additionally, upon completion of the distribution, at least one member of the Audit Committee will be an "audit committee financial expert" under SEC rules and the Nasdaq Global Market listing standards applicable to audit committees. The initial members of the Audit Committee will be determined prior to the completion of the distribution.

Compensation Committee

The responsibilities of the Compensation Committee will be more fully described in our Compensation Committee Charter and are expected to include, among other duties:

- reviewing and approving corporate goals and objectives relevant to executive officer compensation and evaluating the performance of executive officers in light of those goals and objectives;
- reviewing and approving executive officer compensation, including salary, bonus and incentive compensation, deferred compensation, perquisites, equity compensation, benefits provided upon retirement, severance or other termination of employment and any other forms of executive compensation;
- reviewing and approving our chief executive officer's compensation based on its evaluation of our chief executive officer's performance;
- overseeing and administering our incentive compensation plans and equity based plans and recommending the adoption of new incentive compensation plans and equity based plans to our board of directors;
- making recommendations to our board of directors with respect to director compensation; and
- making recommendations to our board of directors with respect to management succession planning, including planning with respect to our chief executive officer.

Upon completion of the distribution, the Compensation Committee will consist entirely of independent directors, and we intend that each will meet the independence requirements set forth in the listing standards of the Nasdaq Global Market. We also intend the members of the Compensation Committee will qualify as "non-employee directors" (within the meaning of Rule 16b-3 of the Exchange Act) and "outside directors" (within the meaning of Section 162(m) of the Code). The initial members of the Compensation Committee will be determined prior to the completion of the distribution.

Nominating and Corporate Governance Committee

The responsibilities of the Nominating and Corporate Governance Committee will be more fully described in our Nominating and Corporate Governance Committee Charter and are expected to include, among other duties:

- identifying individuals qualified to become members of our board of directors;
- recommending to our board of directors the persons to be nominated for election as directors;
- assisting our board of directors in recruiting such nominees;
- recommending to our board of directors qualified individuals to serve as committee members;
- performing an annual evaluation of our board of directors;
- evaluating the need and, if necessary, creating a plan for the continuing education of our directors;
- assessing and reviewing our corporate governance guidelines and recommending any changes to our board of directors; and
- evaluating and approving any requests from our executives to serve on the board of directors of another for-profit company.

The Nominating & Corporate Governance Committee will consist entirely of independent directors, and we intend that each will meet the independence requirements set forth in the listing standards of the Nasdaq Global Market. The initial members of the Nominating & Corporate Governance Committee will be determined prior to the completion of the distribution.

Our board of directors may establish other committees from time to time.

Compensation Committee Interlocks and Insider Participation

During the fiscal year ended December 31, 2017, Cyclerion did not exist and did not have a compensation committee or any other committee serving a similar function. Prior to the separation, decisions as to the compensation of those who are expected to serve as our executive officers were made by the Ironwood Compensation and HR Committee.

Code of Business Conduct and Ethics

In connection with the separation and the distribution, our board of directors is expected to adopt corporate governance principles that set forth the responsibilities of the board of directors and the qualifications and independence of its members and the members of its standing committees. In addition, in connection with the separation and distribution, our board of directors is expected to adopt, among other codes and policies, a code of conduct setting forth standards applicable to all of our companies and our directors, officers and employees. The corporate governance principles and code of conduct will be available on Cyclerion's website at www.cyclerion.com. We expect that any amendment to the code, or any waivers of its requirements, will be disclosed on our website.

EXECUTIVE COMPENSATION

Executive Compensation

Overview

The following tables and discussion relate to the compensation paid to or earned by Peter M. Hecht, Ph.D., who currently serves as Chief Executive Officer of Ironwood and will serve as our Chief Executive Officer, and our two most highly compensated executive officers (other than Dr. Hecht) who were serving as executive officers of Ironwood on the last day of fiscal year 2018. They are Mark G. Currie, Ph.D., who currently serves as Senior Vice President, Chief Scientific Officer and President of R&D of Ironwood and will serve as our President, and William Huyett who currently serves as Chief Operating Officer of Ironwood and will serve as our Chief Financial Officer. Dr. Hecht, Dr. Currie and Mr. Huyett are referred to collectively in this information statement as our "named executive officers."

Prior to the separation, the compensation of our named executive officers for their service to Ironwood was designed and determined by Ironwood and the Ironwood Compensation and HR Committee. Prior to the separation, the Ironwood Compensation and HR Committee may determine to adopt new or alternative compensation arrangements to attract and retain talented executives at Cyclerion, and in connection with or following the separation, our Compensation Committee may adopt such compensation arrangements or adopt its own compensation arrangements to attract and retain talented executives. While we are currently in the process of determining the philosophy and design of our compensation plans and programs, we have determined the terms of our equity incentive plan, director compensation plan and executive severance agreements, each of which is described in this information statement. Cyclerion does not have any agreements or arrangements in place with our named executive officers at this time.

Summary Compensation Table

The following table sets forth information about certain compensation awarded to, earned by or paid to our named executive officers under Ironwood's compensation and benefit plans and programs during fiscal year 2018:

Name and Principal Position	Year	Salary ($)	Bonus ($) (1)	Stock Awards ($)	Option Awards ($) (2)	Nonequity Incentive Plan Compensation ($) (3)	All Other Compensation ($) (4)	Total ($)
Peter M. Hecht, Ph.D., *Chief Executive Officer*	2018	100,000	1,192,500	—	3,842,268	—	25,348	5,160,116
Mark G. Currie, Ph.D., *President*	2018	485,000	—	231,360	1,424,289	— 242,500	62,271	2,445,420
William Huyett, *Chief Financial Officer*	2018	465,000	—	1,090,298	2,346,469	— 232,500	8,040	4,142,307

(1) Consists of a one-time discretionary bonus approved by the Ironwood Compensation and HR Committee in fiscal year 2019 for fiscal year 2018 performance.

(2) Reflects the fair value of time-based restricted stock unit and stock option awards on the date of grant calculated in accordance with Financial Accounting Standards Board issued Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*, or ASC 718. For a discussion of the policies used to determine assumptions used in the valuation of awards, see Note 14 to Ironwood's consolidated financial statements for the year ended December 31, 2018 included in Ironwood's Annual Report on Form 10-K that Ironwood filed with the SEC on February 25, 2019. All values reported exclude the effects of potential forfeitures.

(3) Consists of payments made under Ironwood's annual cash bonus program in fiscal year 2019 for fiscal year 2018 performance.

(4) Drs. Hecht and Currie received one-time payments of $17,308 and $54,231, respectively, for accrued but unused sabbatical leave balances that were paid in 2018 upon the termination of Ironwood's company-wide sabbatical program. Additionally, for each named executive officer, $6,000 of such amount consists of matching contributions made under the Ironwood 401(k) plan, as well as an amount attributable to a transportation stipend and a fitness stipend.

Chief Executive Officer Compensation

2018

Since 1998, when Dr. Hecht began serving as Ironwood's Chief Executive Officer, he has been paid an annual base salary of $100,000 and has declined increases to his base salary each year. Dr. Hecht's compensation was reviewed and approved annually by the Ironwood Compensation and HR Committee. In January 2018, the Ironwood Compensation and HR Committee recommended an increase to Dr. Hecht's base salary to be market competitive with his peers, but Dr. Hecht declined to accept such increase.

In January 2018, Ironwood's Compensation and HR Committee recommended, and Dr. Hecht declined to accept, a cash bonus for Dr. Hecht based on Ironwood's achievement of 84% of its fiscal year 2017 corporate goals. Since co-founding Ironwood in 1998, Dr. Hecht has declined cash bonuses each year. Recognizing that Dr. Hecht's cash compensation is well below his market peers, the Ironwood Compensation and HR Committee granted Dr. Hecht stock options, in lieu of an increase to base salary and cash bonus, to keep his overall compensation competitive with that of his peers.

The Ironwood Compensation and HR Committee set the fiscal year 2018 equity pool based on Ironwood's achievement of its fiscal year 2017 corporate goals at 84% and then set individual award amounts based on peer group and market data, with adjustments for relative company performance and individual performance. Each of Ironwood's executive officers, including Dr. Hecht, was given the opportunity to choose from among the following mix for his or her fiscal year 2018 annual equity awards: 100% stock options, 75% stock options and 25% restricted stock units, or 50% stock options and 50% restricted stock units.

On February 21, 2018, Dr. Hecht was granted an annual equity award of 390,000 options to purchase shares of Ironwood common stock and 190,000 options to purchase shares of Ironwood common stock in lieu of a cash bonus or base salary increase. The stock options have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date and vest over four years as to 1/48th of the award on each monthly anniversary of the vesting commencement date, which was January 1, 2018.

2019

In January 2019, the Ironwood Compensation and HR Committee recommended an increase to Dr. Hecht's base salary to be market competitive with his peers, but Dr. Hecht declined to accept such increase.

The Ironwood Compensation and HR Committee set the fiscal year 2019 equity pool based on Ironwood's achievement of its fiscal year 2018 corporate goals at 100% and the price of Ironwood's common stock and then set individual award amounts based on peer group and market data, with adjustments for relative company performance and individual performance. Each of Ironwood's executive officers, including Dr. Hecht, was given the opportunity to choose from among the following mix for his or her fiscal year 2019 annual equity awards: 100% stock options, 75% stock options and 25% restricted stock units, or 50% stock options and 50% restricted stock units.

In recognition of Ironwood's achievement of 100% of its fiscal year 2018 corporate goals as well as recognizing that Dr. Hecht's cash compensation is well below his market peers, Ironwood's Compensation and HR Committee recommended an annual equity award of 1,000,000 options to purchase shares of Ironwood common stock and a cash bonus of $1,192,500 in January 2019. While the

Ironwood Compensation and HR Committee has historically granted Dr. Hecht stock options, in lieu of an increase to base salary and cash bonus and to keep his overall compensation competitive with that of his peers, Dr. Hecht accepted a portion of his fiscal year 2018 bonus in the form of cash, rather than stock options, due to limitations on annual equity grants to individuals under Ironwood's equity incentive plans.

Dr. Hecht's stock options were awarded on January 29, 2019 and have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date and vest over four years as to 1/48th of the award on each monthly anniversary of the vesting commencement date, which was January 1, 2019.

Other Named Executive Officer Compensation

Base Salaries

At Ironwood, base salaries served to provide a stable source of income. They were determined at commencement of employment and were generally re-evaluated annually and adjusted, if warranted, to realign salaries with market levels and to reflect the performance of the executive officer.

In January 2018, the Ironwood Compensation and HR Committee reviewed and approved a $15,000 increase in Dr. Currie's base salary from $470,000 to $485,000 in recognition of his meeting or exceeding all or substantially all of his individual performance goals in 2017. The Ironwood Compensation and HR Committee also took into account peer group and other market data provided by Pearl Meyer & Partners, LLC or PM, its compensation consultant. In December 2017, the Ironwood Compensation and HR Committee approved an initial base salary for Mr. Huyett of $465,000, based on peer group and other market data provided by PM. Mr. Huyett did not receive an increase in base salary, due to the short period of time between his joining Ironwood on December 15, 2017 and the Ironwood Compensation and HR Committee's 2018 base salary reviews.

In January 2019, the Ironwood Compensation and HR Committee reviewed and approved a $15,000 increase in Dr. Currie's base salary from $485,000 to $500,000 and a $20,000 increase in Mr. Huyett's salary from $465,000 to $485,000 in recognition of each of Dr. Currie's and Mr. Huyett's meeting or exceeding all or substantially all of his individual performance goals in 2018. The Ironwood Compensation and HR Committee also took into account peer group and other market data provided by PM.

Bonuses

Dr. Currie received payments in 2018 under Ironwood's annual cash bonus program based on fiscal year 2017 performance. For fiscal year 2017, Dr. Currie had an individual bonus target at Ironwood of 50% of base salary. In January 2018, following the recommendations of Dr. Hecht, the Ironwood Compensation and HR Committee reviewed and approved a bonus of $210,000 for Dr. Currie for fiscal year 2017 performance. 70% percent of Dr. Currie's fiscal year 2017 bonus amount was tied solely to Ironwood's achievement of 84% percent of its corporate goals, and 30% was tied to both Ironwood's achievement of corporate goals and Dr. Currie's achievement of his individual goals. Dr. Currie met or exceeded all or substantially all of his individual goals for fiscal year 2017.

Mr. Huyett was not eligible for a bonus in respect of fiscal year 2017 due to the substantial completion of fiscal year 2017 when he joined Ironwood. However, Mr. Huyett did receive a one-time cash bonus of $50,000 in connection with his hiring in December 2017.

Each of Dr. Currie and Mr. Huyett received payments in 2019 under Ironwood's annual cash bonus program based on fiscal year 2018 performance. For fiscal year 2018, each of Dr. Currie and Mr. Huyett had an individual bonus target at Ironwood of 50% of base salary. In January 2019, following the recommendations of Dr. Hecht, the Ironwood Compensation and HR Committee

reviewed and approved a bonus of $242,500 for Dr. Currie and $232,500 for Mr. Huyett for fiscal year 2018 performance. 70% percent of each of Dr. Currie's and Mr. Huyett's fiscal year 2018 bonus amount was tied solely to Ironwood's achievement of 100% percent of its corporate goals, and 30% was tied to both Ironwood's achievement of corporate goals and the executive's achievement of his individual goals. Each of Dr. Currie and Mr. Huyett met or exceeded all or substantially all of his individual goals for fiscal year 2018.

Equity-Based Compensation

2018

Drs. Hecht and Currie were each granted an Ironwood annual equity award in fiscal year 2018. The Ironwood Compensation and HR Committee set the fiscal year 2018 equity pool based on Ironwood's achievement of its fiscal year 2017 corporate goals at 84% and then set individual award amounts based on peer group and market data, with adjustments for relative company performance and individual performance.

Each of Ironwood's executive officers, including Drs. Hecht and Currie, was given the opportunity to choose from among the following mix for his or her fiscal year 2018 annual equity awards: 100% stock options, 75% stock options and 25% restricted stock units, or 50% stock options and 50% restricted stock units.

On February 21, 2018, Dr. Currie was granted an annual equity award of 215,000 options to purchase shares of Ironwood common stock. The stock options have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date and vest over four years as to 1/48th of the award on each monthly anniversary of the vesting commencement date, which was January 1, 2018. In addition, on July 31, 2018, Dr. Currie was granted 12,000 restricted stock units for shares of Ironwood common stock in recognition of his service to Ironwood in connection with the separation. The restricted stock units will cliff vest in full on May 9, 2019.

Mr. Huyett was not eligible to receive an Ironwood annual equity award for fiscal year 2018 due to the substantial completion of fiscal year 2017 when he joined Ironwood and instead received an initial grant in early fiscal year 2018. On January 2, 2018, Mr. Huyett received an initial grant of 337,500 options and 56,250 restricted stock units, each for shares of Ironwood common stock. The stock options have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date. The stock options will vest over four years as to 25% of the shares on the first anniversary of Mr. Huyett's start date and as to 1/48th of the total shares each month thereafter for the next 36 months, and the restricted stock units will vest as to 25% of the award on each anniversary of the grant date. In addition, on July 31, 2018, Mr. Huyett was granted 12,000 restricted stock units for shares of Ironwood common stock in recognition of his service to Ironwood in connection with the separation. The restricted stock units will cliff vest in full on May 9, 2019.

2019

Each of our named executive officers was granted an Ironwood annual equity award in fiscal year 2019. The Ironwood Compensation and HR Committee set the fiscal year 2019 equity pool based on Ironwood's achievement of its fiscal year 2018 corporate goals at 100% and the price of Ironwood's common stock and then set individual award amounts based on peer group and market data, with adjustments for relative company performance and individual performance.

Each of Ironwood's executive officers, including the named executive officers, was given the opportunity to choose from among the following mix for his or her fiscal year 2019 annual equity awards: 100% stock options, 75% stock options and 25% restricted stock units, or 50% stock options and 50% restricted stock units.

On January 29, 2019, Dr. Currie was granted an annual equity award of 600,000 options to purchase shares of Ironwood common stock. The stock options have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date and vest over four years as to 1/48th of the award on each monthly anniversary of the vesting commencement date, which was January 1, 2019.

On January 29, 2019, Mr. Huyett was granted an annual equity award of 258,750 options to purchase shares of Ironwood common stock and 43,125 restricted stock units for shares of Ironwood common stock. The stock options have an exercise price equal to the fair market value of a share of Ironwood common stock on the grant date and vest over four years as to 1/48th of the award on each monthly anniversary of the vesting commencement date, which was January 1, 2019. The restricted stock units vest over four years as to 25% of the award on each anniversary of the vesting commencement date.

Employee Benefits

At Ironwood, our named executive officers were eligible to participate in Ironwood's broad-based health, welfare and fringe benefit plans. These plans include medical, dental, vision, basic and supplemental life, short-term and long-term disability insurance, flexible spending accounts, an employee assistance program, commuter benefits, a relocation program and transportation and fitness stipends. Our named executive officers were eligible to participate in these plans on the same basis as Ironwood's other eligible employees.

In connection with Ironwood's termination of its company-wide sabbatical program, employees, including Drs. Hecht and Currie, were paid out any accrued but unused sabbatical leave balances in fiscal year 2018.

In fiscal year 2018, our named executive officers participated in Ironwood's broad-based 401(k) plan, which provides a 75% matching company contribution on the first $8,000 of an employee's annual contribution to the 401(k) plan. Ironwood does not sponsor or maintain any qualified or non-qualified defined benefit plans or supplemental executive retirement plans.

Other than Ironwood's broad-based benefits, or as otherwise described herein, none of our named executive officers received perquisites of any nature in fiscal year 2018.

Agreements with our Named Executive Officers

Each of Dr. Hecht, Dr. Currie and Mr. Huyett entered into a severance agreement with Ironwood that entitled him to receive certain benefits in the event of an involuntary termination without "cause" or a "constructive termination," including in the event of a "change of control termination" (each as defined in the agreement). We intend to enter into a severance agreement with each of Dr. Hecht, Dr. Currie and Mr. Huyett that is consistent in all material respects with the Ironwood severance agreement described below. Our severance agreement with each of Dr. Hecht, Dr. Currie and Mr. Huyett is expected to apply to any termination without cause, constructive termination or change of control termination occurring within six months following the effective date of such severance agreement.

Severance Benefits not in Connection with a Change of Control

Dr. Hecht. In the event of a termination without cause or a constructive termination not qualifying as a change of control termination, Dr. Hecht would have been entitled under his Ironwood severance agreement to receive (i) an amount equal to 18 months of his base salary for the year of termination; (ii) a pro rata amount of his target cash bonus for the year of termination (pro-rated based on the percentage of the year worked prior to the triggering event); (iii) an amount equal to his

actual bonus for the prior year if not yet paid; (iv) an additional amount equal to his full target cash bonus for the year of termination, multiplied by 1.5; (v) 18 months of subsidized COBRA benefits; and (vi) outplacement benefits.

In addition, Dr. Hecht's Ironwood severance agreement provided that any outstanding equity awards subject solely to time-based vesting would vest in (1) the portion of the equity award that would have vested had he remained employed for 24 months following the termination date and (2) an additional portion of the equity award that would have vested on the next regular vesting date after such 24-month period as if the equity award vested on a daily basis from the last regular award vesting date occurring prior to the end of the 24-month period through such next regular vesting date. Any equity awards that did not vest pursuant to the preceding sentence would have remained outstanding and eligible to vest upon the occurrence of a change of control termination (as defined below). Further, the exercisability of any outstanding vested stock options held by Dr. Hecht as of the termination date (including any vested options to purchase Cyclerion common stock granted in connection with the separation in substitution for or replacement of vested options to purchase Ironwood common stock) would have been extended for 36 months following the termination date (or, in the event that Ironwood publicly announced it was conducting negotiations leading to a change of control or entered into a definitive agreement that would have resulted in a change of control during such 36-month period, the later of (i) the expiration of the 36-month period or (ii) the first to occur of the date that is three months following the change of control and 30 days following the date on which Ironwood announced that such definitive agreement had been terminated or that Ironwood's efforts to consummate the change of control contemplated by the previously announced negotiations or by a previously executed definitive agreement had been abandoned).

Dr. Currie and Mr. Huyett. In the event of a termination without cause or a constructive termination not qualifying as a change of control termination, each of Dr. Currie and Mr. Huyett would have been entitled under their Ironwood severance agreements to receive (i) an amount equal to 12 months of his base salary for the year of termination, plus an amount equal to a maximum of six months of his base salary for any period beginning as of the first anniversary during which he had not secured new, reasonably similar full-time employment; (ii) a pro rata amount of his target cash bonus for the year of termination (pro rated based on the percentage of the year worked prior to the triggering event); (iii) an amount equal to his actual bonus for the prior year if not yet paid; (iv) an additional amount equal to his full target cash bonus for the year of termination; (v) 12 months of subsidized COBRA benefits, plus up to an additional six months of subsidized COBRA benefits for any period beginning as of the first anniversary during which he was not eligible to participate in the group medical plan of another employer; and (vi) outplacement benefits.

In addition, each of Drs. Currie's and Huyett's Ironwood severance agreements provided that any outstanding equity awards subject solely to time-based vesting would vest in (1) the portion of the equity award that would have vested if the named executive officer had remained employed for 18 months following the termination date and (2) an additional portion of the equity award that would have vested on the next regular vesting date after such 18-month period as if the equity award vested on a daily basis from the last regular award vesting date occurring prior to the end of the 18-month period through such next regular vesting date. Any equity awards that did not vest pursuant to the preceding sentence would have remained outstanding and eligible to vest upon the occurrence of a change of control termination (as defined below). Further, the exercisability of any outstanding vested stock options held by the named executive officer as of the termination date (including any vested options to purchase Cyclerion common stock granted in connection with the separation in substitution for or replacement of vested options to purchase Ironwood common stock) would have been extended for 24 months following the termination date (or, in the event that Ironwood publicly announced it was conducting negotiations leading to a change of control or entered into a definitive agreement that would have resulted in a change of control during such 24-month period, the later of (i) the expiration

of the 24 month period or (ii) the first to occur of the date that is three months following the change of control and 30 days following the date on which Ironwood announced that such definitive agreement had been terminated or that Ironwood's efforts to consummate the change of control contemplated by the previously announced negotiations or by a previously executed definitive agreement had been abandoned).

Change of Control Severance Benefits

Dr. Hecht. In the event of a change of control termination, in lieu of any benefits under Ironwood's broad-based change of control plan, Dr. Hecht would have been entitled to receive the following benefits under his Ironwood severance agreement: (i) a lump-sum payment in an amount equal to 24 months of base salary as of the time of termination; (ii) a pro rata amount of his target cash bonus for the year of termination (pro-rated based on the percentage of the year worked prior to the triggering event); (iii) an amount equal to his actual bonus for the prior year if not yet paid; (iv) an additional amount equal to his full target cash bonus for the year of termination, multiplied by 2.0; (v) 24 months of subsidized COBRA benefits; and (vi) outplacement benefits.

In addition, in the event of a change of control termination, Dr. Hecht's Ironwood severance agreement provided for acceleration of all outstanding equity awards subject solely to time-based vesting as of the later of (1) the termination date or (2) the change of control. Further, the exercisability of any outstanding vested stock options held by Dr. Hecht as of the termination date (including any vested options to purchase Cyclerion common stock granted in connection with the separation in substitution for or replacement of vested options to purchase Ironwood common stock) would have been extended for 36 months following the termination date (or, if later the date that was three months following the change of control).

Dr. Currie and Mr. Huyett. In the event of a change of control termination, in lieu of any benefits under Ironwood's broad-based change of control plan, each of Dr. Currie and Mr. Huyett would have been entitled to receive the following benefits under their Ironwood severance agreements: (i) a lump-sum payment in an amount equal to 18 months of base salary as of the time of termination; (ii) a pro rata amount of his target cash bonus for the year of termination (pro-rated based on the percentage of the year worked prior to the triggering event); (iii) an amount equal to his actual bonus for the prior year if not yet paid; (iv) an additional amount equal to his full target cash bonus for the year of termination, multiplied by 1.5; (v) 18 months of subsidized COBRA benefits; and (vi) outplacement benefits.

In addition, in the event of a change of control termination, each of Dr. Currie's and Mr. Huyett's Ironwood severance agreements provided for acceleration of all outstanding equity awards subject solely to time-based vesting as of the later of (1) the termination date or (2) the change of control. Further, the exercisability of any outstanding vested stock options held by the named executive officer as of the termination date (including any vested options to purchase Cyclerion common stock granted in connection with the separation in substitution for or replacement of vested options to purchase Ironwood common stock) would have been extended for 24 months following the termination date (or, if later the date that was three months following the change of control).

Under each of Drs. Hecht's and Currie's and Mr. Huyett's Ironwood severance agreements, a change of control termination consisted of an involuntary termination without "cause" or a "constructive termination" (each as defined in the agreement), in either event during the period commencing six months prior to the earlier of (1) the date that Ironwood first publicly announced it was conducting negotiations leading to a change of control, or (2) the date that Ironwood entered into a definitive agreement that would result in a change of control, and ending on the earlier of (i) the date on which Ironwood announced that the definitive agreement had been terminated or the negotiations had been abandoned or (ii) the date that was 24 months after the change of control.

Under each severance agreement, a change of control occurred when: (i) any person became, pursuant to a transaction or a series of transactions not approved by the Ironwood board, the beneficial owner, directly or indirectly, of Ironwood securities representing more than 50% of the total voting power; (ii) a merger or consolidation of Ironwood occurred, whether or not approved by the Ironwood board, which resulted in the holders of Ironwood's voting securities holding less than 50% of the combined voting power of the surviving entity immediately after such merger or consolidation; (iii) the sale or disposition of more than two-thirds of the assets of Ironwood; or (iv) the date a majority of members of the Ironwood board was replaced during any 12-month period by directors whose appointment or election was not endorsed by a majority of members of the Ironwood board before the date of the appointment or election.

The benefits described above for Dr. Hecht, Dr. Currie and Mr. Huyett were only payable if the executive officer complied with all of Ironwood's rules and policies, executed a separation agreement that included a release of claims and complied with his post-employment obligations of non-disclosure, non-competition and non-solicitation to Ironwood. The severance agreement further provided that in connection with the sale of all or substantially all of the assets of Ironwood, Ironwood would cause the acquirer of such assets to assume the arrangements.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding Ironwood equity awards held by our named executive officers as of December 31, 2018.

	Option Awards					Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)(1)	Market Value of Shares or Units of Stock That Have Not Vested ($)(2)
Peter M. Hecht, Ph.D	110,000	—	—	4.89	2/11/2019(3)	—	—
	20,000	—	20,000	5.48	7/28/2019(4)	—	—
	125,000	—	—	11.25	2/2/2020(3)	—	—
	175,000	—	—	11.11	2/1/2021(3)	—	—
	300,000	—	—	14.72	2/1/2022(3)	—	—
	375,000	—	—	13.08	2/1/2023(3)	—	—
	325,000	—	—	14.11	3/3/2024(5)	—	—
	553,229	11,771	—	15.62	3/16/2025(5)	—	—
	648,958	241,042	—	10.24	3/1/2026(5)	—	—
	364,166	395,834	—	16.77	2/27/2027(5)	—	—
	132,916	447,084	—	14.55	2/21/2028(5)	—	—
Mark G. Currie, Ph.D.	0	—	20,000	5.48	7/28/2019(4)	—	—
	8,888	—	—	11.25	2/2/2020(3)	—	—
	41,041	—	—	11.11	2/1/2021(3)	—	—
	110,000	—	—	14.72	2/1/2022(3)	—	—
	200,000	—	—	13.08	2/1/2023(3)	—	—
	85,000	—	—	14.11	3/3/2024(5)	—	—
	128,515	2,735	—	15.62	3/16/2025(5)	—	—
	25,000	—	25,000	15.62	3/16/2025(6)	—	—
	88,124	63,646	—	10.24	3/1/2026(5)	—	—
	119,791	130,209	—	16.77	2/27/2027(5)	—	—
	49,270	165,730	—	14.55	2/21/2028(5)	17,468	180,968
William Huyett	84,375	253,125	—	15.27	1/2/2028(7)	54,187	561,377

(1) The Ironwood restricted stock units vest over four years as to 25% of the award on each approximate anniversary of the grant thereof.

(2) Market value is calculated by multiplying the number of Ironwood restricted stock units that have not vested by the closing price of Ironwood common stock on the NASDAQ Global Select Market on December 31, 2018, which was $10.36.

(3) The Ironwood options vest as to 1.25% on each monthly anniversary of the vesting commencement date for the first 36 months, and as to 4.5833% of the award on each monthly anniversary thereafter until fully vested.

(4) The Ironwood options vested as to (a) 50% of the shares upon acceptance by the FDA of a second NDA for a product from an internal or external development program (excluding supplemental NDAs for linaclotide, but including NDAs for linaclotide combination products) and vest as to (b) 50% of the shares upon the achievement of $1 billion in annual (calendar year) net global pharmaceutical product sales (including partnered or licensed product revenue) for Ironwood. Ironwood external development programs shall be pre-qualified for milestone vesting eligibility by the Ironwood Compensation and HR Committee as of the time of program initiation at Ironwood.

(5) The Ironwood options vest as to 1/48th of the shares on each monthly anniversary of the vesting commencement date until fully vested.

(6) The Ironwood options vest in two equal installments of 25,000 options each. The option vested as to 25,000 shares upon the first-dosing in the first clinical study of the next phase following achievement of proof of concept for the first internally derived or externally accessed product (other than linaclotide) qualified by the Ironwood Compensation and HR Committee as targeting a new indication, category or market. The Ironwood option vests as to the remaining 25,000 shares upon the first-dosing in the first clinical study of the next phase following achievement of proof of concept for the second

internally derived or externally accessed product (other than linaclotide) qualified by the Ironwood Compensation and HR Committee as targeting a new indication, category or market.

(7) The Ironwood options vest as to 25% of the shares on the first anniversary of the vesting commencement date and 1/48th of the shares each month thereafter for the next 36 months.

Director Compensation

Dr. Hecht is not compensated for his service as a member of the Ironwood board of directors and similarly will not receive compensation for his service to us as a director. Dr. Hecht's compensation for his service as Ironwood's chief executive officer is described above in the section of this information statement entitled "Executive Compensation". The following table sets forth information concerning the compensation paid to, or awarded to, our directors, other than Dr. Hecht, under Ironwood's director compensation plan during fiscal year 2018:

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)	Total ($)
Marsha H. Fanucci	10,000(2)	301,423	311,423
Terrance G. McGuire	9,965(3)	301,423	311,388
Amy W. Schulman	7,299(4)	301,423	308,722

(1) On May 31, 2018, each non-employee member of Ironwood's board of directors was granted a restricted stock award in the amount of 16,223 shares of Ironwood's Class A common stock for service to Ironwood from the date of Ironwood's 2018 annual meeting of stockholders to the date of Ironwood's 2019 annual meeting of stockholders. The amount of this restricted stock grant was determined by dividing (i) $250,000 (the dollar amount for total director compensation approximating the 25th percentile of Ironwood's current peer group on the date of grant), by (ii) the average closing price of Ironwood's Class A common stock on the NASDAQ Global Select Market for the six months preceding the month of the 2018 annual meeting of stockholders. Such award of restricted stock had a grant date fair value of $18.58 per share and was granted pursuant to the terms of Ironwood's director compensation plan. As of December 31, 2018, 8,112 shares from each such restricted stock award remained unvested.

(2) Ms. Fanucci received this compensation for her services as the chair of Ironwood's audit committee in 2018.

(3) Mr. McGuire received this compensation for his service as the chair of Ironwood's board for 2018. Pursuant to Ironwood's director compensation plan, Mr. McGuire elected to receive this compensation in unrestricted shares of Ironwood's Class A common stock. Mr. McGuire received a total of 645 shares of Ironwood's Class A common stock for such chair service in 2018.

(4) Ms. Schulman received this compensation for her service as the chair of Ironwood's capital allocation committee for a portion of 2018. Pursuant to Ironwood's director compensation plan, Ms. Schulman elected to receive this compensation in unrestricted shares of Ironwood's Class A common stock. Ms. Schulman received a total of 474 shares of Ironwood's Class A common stock for such chair service in 2018.

As discussed in the section of this information statement entitled "Employee Matters Agreement—Equity Compensation," any of our non-employee directors who served as non-employee directors of Ironwood will receive unvested Cyclerion restricted stock in respect of any outstanding unvested awards of Ironwood restricted stock they hold. Such Cyclerion restricted stock awards will be subject to the vesting schedule set forth in the original Ironwood restricted stock award. We anticipate making grants of Cyclerion restricted stock shortly after the separation to our non-employee directors who did not hold Ironwood restricted stock prior to the distribution. Such Cyclerion restricted stock awards will

have an equivalent value to the shares of Cyclerion restricted stock granted to our non-employee directors who held Ironwood restricted stock prior to the distribution, and will be pro-rated to reflect each non-employee director's period of service with Cyclerion from the date of the distribution to the anticipated date of the first annual grant.

Following the distribution, we expect to adopt a non-employee director compensation program, based on market and peer data, setting forth the compensation that members of our board of directors will be eligible to receive going forward in respect of their service to us.

2019 Compensation Plans

Prior to the distribution, our board of directors intends to adopt (i) the Cyclerion Therapeutics, Inc. 2019 Equity Incentive Plan, or our 2019 Equity Plan; and (ii) the Cyclerion Therapeutics, Inc. 2019 Employee Stock Purchase Plan, or our 2019 ESPP. We refer to these plans collectively as our "2019 Plans." The following summaries describe what we anticipate to be the material terms of our 2019 Plans. These summaries are not complete descriptions of all of the terms of our 2019 Plans and are qualified in their entirety by reference to our 2019 Plans, which have been filed as exhibits to the registration statement of which this information statement is a part.

2019 Equity Plan

In General

Our 2019 Equity Plan will provide for the grant of stock and stock-based awards. The purpose of our 2019 Equity Plan will be to advance the interests of the Company by providing for the grant to participants of incentive equity awards. Awards granted under our 2019 Equity Plan are intended to be eligible for the post-initial public offering transition relief under Section 162(m) of the Code, as set forth in Section 1.162-27(f) of the Treasury Regulations.

Administration

Our 2019 Equity Plan will generally be administered by our compensation committee, which will have the discretionary authority to interpret the plan; determine eligibility for and grant awards; determine, modify and waive the terms and conditions of any award; determine the form of settlement of awards; prescribe forms, rules and procedures relating to the plan and awards; and otherwise do all things necessary or desirable to carry out the purposes of the plan. Our compensation committee may delegate to one or more of its members or members of our board of directors such of its duties, powers, and responsibilities as it may determine and, to the extent permitted by law, may delegate its ministerial tasks to employees and other persons as it deems appropriate. As used in this summary, the term "Administrator" refers to our compensation committee or its authorized delegates, as applicable.

Eligibility

Our and our subsidiaries' employees, directors, consultants and advisors of will be eligible to participate in our 2019 Equity Plan. Eligibility for stock options intended to be incentive stock options, or ISOs, will be limited to our employees and employees of certain qualifying subsidiaries. Eligibility for stock options other than ISOs and stock appreciation rights, or SARs, will be limited to individuals who are providing direct services on the date of grant of the award to us or certain qualifying subsidiaries. As of February 28, 2019, approximately 140 employees, eight directors and 10 consultants and advisors would be eligible to participate in our 2019 Equity Plan, including all of our executive officers.

Authorized Shares

Subject to adjustment as described below, the number of shares of Cyclerion common stock that may be issued in satisfaction of awards under our 2019 Equity Plan will initially be 2,500,000 shares, plus (1) an automatic increase, as of the date of each annual meeting of our shareholders, from the first annual meeting until the ninth annual meeting, of a number of shares equal to the lesser of (A) four percent (4%) of the number of outstanding shares of Cyclerion common stock as of the close of business on the immediately preceding business day, and (B) the number of shares determined by the Administrator on or prior to the date of such annual meeting of shareholders and (2) any shares underlying awards granted under our 2005 Plan or our 2010 Plan are forfeited, expired or are cancelled without the delivery of shares of Stock thereunder. Up to the total number of shares of Cyclerion common stock set forth in the preceding sentence may be issued in satisfaction of ISOs. The number of shares of common stock issued in satisfaction of awards under our 2019 Equity Plan will be determined by excluding (i) the shares of common stock withheld by us in payment of the exercise or purchase price or an award or in satisfaction of tax withholding requirements, (ii) the number of shares covered by a SAR, any portion of which is settled in common stock, and (iii) any shares underlying any portion of an award that is settled or that expires, becomes unexercisable, terminates or is forfeited to or repurchased by us without the issuance of stock. The number of shares available for delivery under the 2019 Equity Plan will not increase by any number of shares that are delivered and subsequently repurchased using proceeds directly attributable to stock option exercises.

Shares that may be issued under our 2019 Equity Plan may be authorized but unissued shares, treasury shares or previously issued shares acquired by us.

Individual Limits

Awards comprising no more than 1,000,000 shares of Cyclerion common stock may be granted to any participant in any calendar year. In applying the individual limit, all shares subject to stock options that may be granted, all shares subject to SARs that may be granted, and all shares subject to awards other than stock options and SARs that may be granted will be aggregated and made subject to a single limit.

Director Limits

In addition to the individual limits described above, the aggregate value of all compensation granted or paid to any non-employee director with respect to any calendar year for his or her services as a director, including awards under our 2019 Equity Plan, for his or her services as a director during such calendar year may not exceed $400,000, with the value of any awards under our 2019 Equity Plan calculated based on the grant date fair value and assuming maximum payout.

Types of Awards

Our 2019 Equity Plan provides for the grant of stock options, SARs, restricted and unrestricted stock and stock units, performance awards, and other awards that are convertible into or otherwise based on Cyclerion common stock. Dividend equivalents may also be provided in connection with awards under our 2019 Equity Plan.

- *Stock Options and SARs.* The Administrator may grant stock options, including ISOs, and SARs. A stock option is a right entitling the holder to acquire shares of Cyclerion common stock upon payment of the applicable exercise price. A SAR is a right entitling the holder upon exercise to receive an amount (payable in cash or shares of equivalent value) equal to the excess of the fair market value of the shares subject to the right over the base value from which appreciation is measured. The per share exercise price of each stock option, and the per share base value of each SAR, granted under our 2019 Equity Plan may not be less than 100% of the fair market

value of a share of Cyclerion common stock on the date of grant (or 110% in the case of ISOs granted to any employee who holds 10% or more of the total combined voting power of our stock).

- *Restricted and Unrestricted Stock and Stock Units.* The Administrator may grant awards of stock, stock units, restricted stock and restricted stock units. A stock unit is an unfunded and unsecured promise, denominated in shares, to deliver shares or cash measured by the value of shares in the future, and a restricted stock unit is a stock unit that is subject to the satisfaction of specified performance or other vesting conditions. Restricted stock is stock subject to restrictions requiring that it be forfeited, redelivered or offered for sale to the Company if specified performance or other vesting conditions are not satisfied.

- *Performance Awards.* The Administrator may grant performance awards, which are awards subject to performance vesting conditions, including the performance criteria described below.

- *Other Stock- Based Awards.* The Administrator may grant other awards that are convertible into or otherwise based on shares of Cyclerion common stock, subject to such terms and conditions as are determined by the Administrator.

- *Substitute Awards.* The Administrator may grant awards in substitution for equity awards of an acquired company, which may have terms and conditions that are inconsistent with the terms and conditions of our 2019 Equity Plan.

Vesting; Terms and Conditions of Awards

The Administrator will determine the terms and conditions of all awards granted under our 2019 Equity Plan, including the time or times an award vests or becomes exercisable, the terms and conditions on which an option or SAR remains exercisable, and any modifications to the effect of termination of a participant's employment or service on awards from the terms set forth in our 2019 Equity Plan. The Administrator may at any time accelerate the vesting or exercisability of an award.

Transfer Restrictions

Except as the Administrator may otherwise determine, awards may not be transferred other than by will or by the laws of descent and distribution. ISOs may not be transferred other than by will or by the laws of descent and distribution.

Performance Criteria

Our 2019 Equity Plan provides for grants of performance awards subject to "performance criteria." Performance criteria may be applied to a participant individually, or to a business unit or division or the Company as a whole and may relate to any or any combination of the following or any other criteria determined by the Administrator (measured either absolutely or by reference to an index or indices or the performance of one or more companies) and determined either on a consolidated basis or, as the context permits, on a divisional, subsidiary, line of business, project or geographical basis or in combinations thereof): achievement of research, clinical trial or other drug development objectives; achievement of regulatory objectives; achievement of manufacturing and/or supply chain objectives; sales; revenues; assets; expenses; earnings before or after deduction for all or any portion of interest, taxes, depreciation, or amortization, whether or not on a continuing operations or an aggregate or per share basis; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow; stock price; shareholder return; sales of particular products or services; customer acquisition or retention; acquisitions and divestitures (in whole or in part); joint ventures, licenses and strategic alliances; spin-offs, split-ups and the like; reorganizations; recapitalizations, restructurings, financings (issuance of

debt or equity) or refinancings and may be adjusted by the Administrator during the applicable performance period to reflect events that affect the performance criteria.

Effect of Certain Transactions

In the event of certain covered transactions (including a consolidation, merger or similar transaction, a sale of substantially all of our assets or common stock, a change in control, or a dissolution or liquidation of the Company), the Administrator may, with respect to outstanding awards, provide for (in each case, on such terms and conditions as it determines):

- The assumption, continuation or substitution for some or all awards (or any portion thereof) by the acquirer or surviving entity;
- The acceleration of exercisability or delivery of shares in respect of any award (or any portion thereof), in full or in part; and/or
- The cash payment in respect of some or all awards (or any portion thereof) equal to the difference between the fair market value of the shares subject to the award and its exercise or base price, if any.

Except as the Administrator may otherwise determine, each award will automatically terminate immediately upon the consummation of the covered transaction, other than awards that are substituted for, assumed or continued.

Adjustment Provisions

In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization or other change in our capital structure, the Administrator will make appropriate adjustments to the maximum number of shares that may be issued under our 2019 Equity Plan, the individual limits described above, the number and kind of securities subject to, and, if applicable, the exercise or purchase prices (or base values) of, outstanding awards, and any other provisions affected by such event. The Administrator may also make such adjustments to take into account other distributions to shareholders or any other event if it determines that adjustments are appropriate to avoid distortion in the operation of our 2019 Equity Plan or any award.

Recovery of Compensation

The Administrator may provide that any outstanding award or the proceeds from, or other amounts received in respect of, any award or stock acquired under any award will be subject to forfeiture and disgorgement to the Company if the participant to whom the award was granted is not in compliance with any non-competition, non-solicitation, no-hire, non-disparagement, confidentiality, invention assignment or other restrictive covenant, or any applicable Company policy that provides for forfeiture or disgorgement, or as otherwise required by law or applicable stock exchange listing standards. In addition, the Administrator may require forfeiture or disgorgement to the Company any outstanding award or the proceeds from, or other amounts received in respect of, any award or stock acquired under the award with interest or other related earnings, to the extent required by law or applicable stock exchange listings standards, including, without limitation, Section 10D of the Securities Exchange Act of 1934, as amended.

Amendment and Termination

The Administrator may at any time amend our 2019 Equity Plan or any outstanding award and may at any time terminate our 2019 Equity Plan as to future grants. However, except as expressly provided in our 2019 Equity Plan or the applicable award, the Administrator may not alter the terms of an award so as to materially and adversely affect a participant's rights without the participant's consent,

unless the Administrator expressly reserved the right to do so at the time the award was granted. Any amendments to our 2019 Equity Plan will be conditioned on shareholder approval to the extent required by law or applicable stock exchange requirements.

2019 ESPP

In General

Our 2019 ESPP is intended to enable eligible employees to use payroll deductions to purchase shares of Cyclerion common stock, and thereby acquire an interest in the future of the Company. Our 2019 ESPP will generally be implemented by a series of separate offerings, which we refer to as offering periods. On the first day of each offering period, participating employees will be granted an option to purchase shares of Cyclerion common stock, which will be automatically exercised on the last business day of the offering period. Our 2019 ESPP is intended to satisfy the requirements of Section 423 of the Code. As of the date of this information statement, no options to purchase shares of Cyclerion common stock have been granted under our 2019 ESPP.

Administration

Our 2019 ESPP will be administered by our compensation committee, which will have the authority to interpret the plan; determine eligibility under the plan; prescribe forms, rules and procedures relating to the plan; and otherwise do all things necessary or appropriate to carry out the purposes of the plan. Our compensation committee may delegate to one or more of its members or members of our board of directors such of its duties, powers, and responsibilities as it may determine and may delegate such ministerial tasks as it deems appropriate to employees or other persons. As used in this summary, the term "Administrator" refers to our compensation committee or its authorized delegates, as applicable.

Eligibility

Participation in our 2019 ESPP will generally be limited to our and our participating subsidiaries' employees (i) who have been continuously employed by us or our subsidiary, as applicable, for a period of at least fifteen business days as of the first day of an applicable offering period; (ii) whose customary employment with us or our subsidiary, as applicable, is for more than five months per calendar year; (iii) who customarily work twenty hours or more per week; and (iv) who satisfy the requirements set forth in our 2019 ESPP. The Administrator may establish additional or different eligibility requirements to the extent consistent with Section 423 of the Code. No employee may be granted an option under our 2019 ESPP if, immediately after the option is granted, the employee would own (or would be deemed to own) shares of Cyclerion common stock possessing five percent or more of the total combined voting power or value of all classes of shares of the Company or of our parent or subsidiaries, if any. As of February 28, 2019, approximately 140 employees would be eligible to participate in our 2019 ESPP, including all of our executive officers.

Authorized Shares

Subject to adjustment as described below, the maximum aggregate number of shares of Cyclerion common stock that are available for issuance under our 2019 ESPP will initially be 400,000 shares, which number will increase as of the date of each annual meeting of our shareholders, from the first annual meeting of the shareholders following the adoption of the ESPP until the ninth annual meeting following the adoption of the ESPP. Such annual increase will be equal to the lesser of (A) one percent of shares of stock outstanding on a fully diluted basis as of the close of business on the immediately preceding day, and (B) the number of shares determined by the Administrator on or prior to such date. Shares that may be issued under our 2019 ESPP may be authorized but unissued shares, shares of

treasury stock or previously issued shares acquired by us. If any option expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased shares subject to such option will again be available for purchase under the plan.

Participation

Eligible employees may participate in an offering period under our 2019 ESPP by delivering a payroll deduction and participation authorization form to the Administrator, authorizing a whole percentage of the employee's eligible compensation, between one percent and fifteen percent of the employee's eligible compensation, to be deducted from the employee's pay during the offering period. The payroll deduction authorization must be delivered no later than fifteen business days prior to the first day of the offering period (or such other period specified by the Administrator). A payroll deduction authorization under our 2019 ESPP will remain in effect for subsequent offering periods unless a participant delivers a new payroll deduction authorization or the participant's participation in our 2019 ESPP is terminated.

Offering Periods

Unless otherwise determined by the Administrator, offering periods under our 2019 ESPP will be six months in duration and commence on the first business day of June and December of each year.

Subject to the limitations in our 2019 ESPP, as described in this summary, on the first day of each offering period, participating employees will be granted an option to purchase shares of Cyclerion common stock, except that no participant will be granted an option under our 2019 ESPP that permits the participant's right to purchase shares of Cyclerion common stock under our 2019 ESPP and under all other employee stock purchase plans of the Company or our parent or subsidiaries, if any, to accrue at a rate that exceeds $25,000 in fair market value (or such other maximum as may be prescribed by the Code) for each calendar year during which any option granted to the participant is outstanding at any time, determined in accordance with Section 423 of the Code.

Each option to purchase shares of Cyclerion common stock granted under our 2019 ESPP for an offering period, unless earlier cancelled, will be automatically exercised on the last business day of the offering period. Upon exercise, shares will be purchased using the participant's accumulated payroll deductions for the offering period, which will be maintained on our books in a notional account. A participant may purchase a maximum of 2,500 shares of Cyclerion common stock with respect to any offering period (or such lesser number of shares as the Administrator may prescribe).

Purchase Price

The purchase price of each share issued pursuant to the exercise of an option under our 2019 ESPP on an exercise date will be 85% (or such greater percentage as specified by the Administrator) of the lesser of (i) the fair market value of a share on date the option is granted and (ii) the fair market value of a share on the exercise date.

Changes to Payroll Authorization; Termination

During an offering period, a participant may decrease his or her payroll deduction authorization once (including to zero) while continuing to participate in our 2019 ESPP, but may not increase his or her payroll deduction authorization.

A participant may cancel his or her enrollment and terminate his or her payroll deduction authorization by delivering a notice to the Administrator at least 15 business days prior to the exercise date. Upon termination of a participant's employment prior to an exercise date for an offering period, or if a participant ceases to be eligible to participate in the plan, or in the case of the death of a

participant during an offering period, the participant's option will be cancelled automatically. Upon cancellation, the balance of the participant's account will be returned to the participant, without interest, as soon as administratively practicable.

Holding Period

For participants who have purchased shares under our 2019 ESPP, the Administrator may impose restrictions prohibiting the transfer, sale, pledge or alienation of such shares, other than by will or by the laws of descent and distribution, for such period as may be determined by the Administrator.

Effect of Certain Transactions

In the event a sale of substantially all of our assets or common stock, or merger or similar transaction in which the Company is not the surviving corporation or that results in the acquisition of the Company by another person, the Administrator may (i) if the Company is merged with or acquired by another corporation, provide that each outstanding option will be assumed or exchanged for a substitute option; (ii) cancel each outstanding option and return the balances in the participants' accounts, without interest; and/or (iii) terminate the offering period on or before the date of the proposed sale, merger or similar transaction.

Adjustment Provisions

In the event of any change in the outstanding stock by reason of a stock dividend, stock split, reverse stock split, split-up, recapitalization, merger, consolidation, reorganization, or other capital change, the Administrator will make appropriate adjustments to the aggregate number and type of shares available for purchase under our 2019 ESPP, the maximum number and type of shares purchasable under any outstanding option and/or the purchase price under any outstanding option, provided that such change complies with Section 423 of the Code.

Amendment and Termination

The Administrator has the discretion to change the commencement and exercise dates of offering periods, the purchase price, the maximum number of shares that may be purchased with respect to any offering period, the duration of any offering periods and other terms of our 2019 ESPP, in each case, without shareholder approval, in a manner consistent with Section 423 of the Code and in order to, among other things, reflect the impact of local law outside of the United States as applied to one or more eligible employees of a Company subsidiary, and the Administrator may, where appropriate, establish one or more sub-plans to reflect such amended provisions.

Our board of directors may at any time amend, suspend or terminate our 2019 ESPP, provided that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code will require shareholder approval.

2010 and 2005 Plans

Prior to the distribution, our board of directors intends to adopt (i) the Cyclerion Therapeutics, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan, or our 2010 Plan and (ii) the Cyclerion Therapeutics, Inc. Amended and Restated 2005 Stock Incentive Plan, or our 2005 Plan. We refer to these plans collectively as our "Mirror Plans." Our Mirror Plans are intended to mirror in all material respects the terms and conditions of the Ironwood Pharmaceuticals, Inc. Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan, or the Ironwood 2010 Plan, and the Ironwood Pharmaceuticals, Inc. Amended and Restated 2005 Stock Incentive Plan, or the Ironwood 2005 Plan, for purposes of governing awards previously issued under the Ironwood 2010 Plan and the Ironwood 2005 Plan, respectively, that were

converted into awards in respect of Cyclerion common stock pursuant to the terms of the employee matters agreement. No awards will be made under the Mirror Plans following the distribution. The following summaries describe what we anticipate to be the material terms of our Mirror Plans. These summaries are not complete descriptions of all of the terms of our Mirror Plans and are qualified in their entirety by reference to our Mirror Plans, which have been filed as exhibits to the registration statement of which this information statement is a part.

2010 Plan

Our 2010 Plan provides for the grant of stock and stock-based awards. Subject to adjustment, the maximum number of shares of Cyclerion common stock that may be issued pursuant to awards is 13,800,000 shares. In the event that an outstanding aware expires, is cancelled or otherwise terminated without consideration, such shares will be available for grant under our 2019 Equity Plan. As of the distribution, options to purchase approximately 6,583,148 shares of Cyclerion common stock, approximately 901,442 restricted stock units and approximately 11,658 shares of restricted stock will be outstanding under our 2010 Plan.

Our 2010 Plan will generally be administered by our board of directors, which will have discretionary authority to interpret the provisions of our 2010 Plan and to make any rules and determinations which it deems advisable for the administration of our 2010 Plan. To the extent permitted under applicable law, our board of directors may delegate to a committee, or to one or more of the members of our board of directors, its authority and duties under our 2010 Plan. As used in this summary, the term "Administrator" refers to our board of directors or its authorized delegates, as applicable.

Each of our named executive officers has been granted options to purchase Ironwood common stock and restricted stock units in respect of Ironwood common stock under the Ironwood 2010 Plan. Awards granted under the Ironwood 2010 Plan will be adjusted as described in the section of this information statement entitled "Employee Matters Agreement—Equity Compensation." Any awards granted under the Ironwood 2010 Plan to be converted into awards under our 2010 Plan will be subject to substantially the same terms and vesting conditions as were applicable to the award granted under the Ironwood 2010 Plan prior to the distribution.

In the event of a corporate transaction, generally defined in our 2010 Plan to include a transaction in which our company is to be consolidated with or acquired by another entity through a merger, consolidation or sale of all or substantially all of our assets, the Administrator will take, or cause to be taken, any of the following actions as to all or any outstanding stock options, on such terms as the Administrator determines, unless otherwise specifically provided by the terms of the stock option: (i) provide for the assumption of stock options by the acquiring or surviving entity, (ii) upon written notice, provide that unexercised stock options, with such options being made fully exercisable, must be exercised within a specified number of days, at the end of which period such stock options, if not exercised, shall terminate or (iii) provide for termination of unexercised stock options, with such stock options being made fully exercisable, in exchange for a cash payment to the holder of such stock options equal to the difference between the per share consideration received by common shareholders in the corporate transaction and the exercise price of each such stock option. With respect to outstanding awards other than stock options, the Administrator will make provision for the substitution of awards by the surviving or acquiring entity or for the termination of awards in exchange for payment in an amount equal to the consideration payable in the corporate transaction to a holder of the number of shares of common stock comprising such awards.

Our shareholders, and in certain instances, the Administrator, may amend our 2010 Plan at any time. However, no such action may adversely affect any rights under any outstanding award without the participant's consent.

2005 Plan

Our 2005 Plan provides for the grant of stock and stock-based awards. Subject to adjustment, the maximum number of shares of Cyclerion common stock that may be issued pursuant to awards is 350,000 shares. In the event that an outstanding aware expires, is cancelled or otherwise terminated without consideration, such shares will be available for grant under our 2019 Equity Plan. As of the distribution, options to purchase approximately 215,811 shares of Cyclerion common stock will be outstanding under our 2005 Plan.

Our 2005 Plan will generally be administered by our board of directors, which will have discretionary authority to adopt, amend and repeal administrative rules, guidelines and practices it deems advisable, and to correct any defect, supply any omission or reconcile any inconsistency in our 2005 Plan or an award granted under our 2005 Plan. To the extent permitted under applicable law, our board of directors may delegate to a committee its authority and duties under our 2005 Plan. As used in this summary, the term "Administrator" refers to our board of directors or its authorized delegates, as applicable.

Drs. Hecht and Currie have been granted options to purchase Ironwood common stock under the Ironwood 2005 Plan. Awards granted under the Ironwood 2005 Plan will be adjusted as described in the section of this information statement entitled "Employee Matters Agreement—Equity Compensation." Any awards granted under the Ironwood 2005 Plan to be converted into awards under our 2005 Plan will be subject to substantially the same terms and vesting conditions as were applicable to the award granted under the Ironwood 2005 Plan prior to the distribution.

In the event of a reorganization event, generally defined in our 2005 Plan to include any merger or consolidation of our company into another entity, any exchange of all of our common stock for cash, securities or other property pursuant to a share exchange transaction or any liquidation or dissolution of our company, the Administrator will take, or cause to be taken, any of the following actions as to all or any outstanding awards, as determined by the Administrator: (i) provide for the assumption or substitution of awards by the acquiring or surviving entity, (ii) upon written notice, provide that unexercised stock options, or other unexercised awards, with such awards being made fully exercisable, must be exercised within a specified number of days, at the end of which period such stock options, if not exercised, shall terminate, (iii) provide that outstanding awards shall become realizable or deliverable, or restrictions applicable to an award shall lapse, in whole or in part prior to or upon the reorganization event, (iv) in the event of a reorganization event under the terms of which holders of Cyclerion common stock will receive a cash payment for each share surrendered, provide for a cash payment in respect of some or all awards (or any portion thereof) equal to the difference between the fair market value of the shares subject to the award and its exercise or base price, if any, (v) provide that, in connection with a liquidation or dissolution of our company, awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price or base price thereof).

Our board of directors may amend our 2005 Plan at any time.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Relationship with Ironwood

Prior to the completion of this separation, all of our outstanding shares of common stock are owned by Ironwood. Following the completion of this separation, Ironwood will no longer own any shares of our common stock. See "Risk Factors—Risks Related to the Separation and the Private Placement" and "The Separation and Distribution"

Following the distribution, Cyclerion and Ironwood will operate separately, each as an independent public company. In connection with this separation, we and Ironwood have entered or will enter into certain agreements that will effect the separation of our business from Ironwood and govern our relationship with Ironwood after this separation. The following is a summary of the terms of the material agreements that we intend to enter into with Ironwood prior to the completion of this separation, which have been filed as exhibits to the registration statement of which this information statement is a part. These summaries set forth the terms of the agreements that we believe are material and are qualified in their entirety by reference to the full text of such agreements. The terms of the agreements described below that will be in effect following the distribution have not yet been finalized. Changes to these agreements, some of which may be material, may be made prior to the distribution.

Agreements with Ironwood

Separation Agreement

We intend to enter into a separation agreement with Ironwood prior to the distribution of our common stock to Ironwood stockholders. The separation agreement will set forth our agreements with Ironwood regarding the principal actions to be taken in connection with the separation, including the distribution. The separation agreement will identify assets to be transferred, liabilities to be assumed and contracts to be assigned to each of Cyclerion and Ironwood as part of the separation, and it will provide for when and how these transfers, assumptions and assignments will occur.

Transfer of Assets and Assumption of Liabilities. The separation agreement will identify assets to be transferred, liabilities to be assumed and contracts to be assigned to each of Ironwood and us, and it will provide for the transfer of such assets, assumption of such liabilities and assignment of such contracts upon the execution of the separation agreement to the extent such transfers and assignments have not already occurred. The separation agreement is intended to provide for those transfers of assets and assumptions of liabilities that are necessary so that after the distribution we and Ironwood have the assets necessary to operate our respective businesses and retain or assume the liabilities related to those assets. The separation agreement will also provide for the settlement or extinguishment of certain liabilities and other obligations between us and Ironwood.

The allocation of liabilities with respect to taxes, except for payroll tax withholding and reporting and other tax matters expressly covered by the employee matters agreement, are solely covered by the tax matters agreement.

Further Assurances. Each party will agree to use commercially reasonable efforts to take or to cause to be taken all actions, and to do, or to cause to be done, all things reasonably necessary under applicable law or contractual obligations to consummate and make effective the transactions contemplated by the separation agreement and other transaction agreements.

Employee Non-Solicit and Non-Hire. Each of Ironwood and Cyclerion will be subject to mutual two-year employee non-solicitation and non-hire obligations, subject to customary exceptions.

Certain Restrictions. Ironwood and Cyclerion, as well as their respective affiliates, will be subject to non-compete restrictions, subject to customary carve-outs for performance under the separation

agreements, acquisitions of entities engaged in a restricted business and an acquirer's commercially available products and product candidates in clinical development at the time of the acquisition. For three years after the distribution date, Ironwood shall not engage in the business of discovering, researching, developing, importing, exporting, manufacturing, marketing, distributing, promoting or selling any pharmaceutical product (a) for the diagnosis, prevention or treatment of DN, HFpEF or SCD or (b) that contains one or more sGC stimulators. For ten years after the distribution date, Cyclerion shall not engage in the business of discovering, researching, developing, importing, exporting, manufacturing, marketing, distributing, promoting or selling any pharmaceutical product for the diagnosis, prevention or treatment of irritable bowel syndrome, constipation or gastroesophageal reflux disease. In addition, for three years after the distribution date, Cyclerion shall not engage in the business of discovering, researching, developing, importing, exporting, manufacturing, marketing, distributing, promoting or selling any pharmaceutical product (a) for the diagnosis, prevention or treatment of GI diseases or disorders (provided that this restriction will only apply to functional dyspepsia, functional vomiting and functional diarrhea with respect to an acquirer of Cyclerion following a change of control) other than irritable bowel syndrome, constipation or gastroesophageal reflux disease, except with respect to the use of an sGC as the primary active ingredient, (b) for the diagnosis, prevention or treatment of diseases or disorders with the recognized signs or symptoms of visceral, abdominal or pelvic pain, except with respect to the use of an sGC as the primary active ingredient for the diagnosis, prevention or treatment of an indication other than endometriosis and bladder pain syndrome, or (c) that contains one or more guanylate cyclase-C agonists or is or contains any bile sequestrant-based therapy, in each case except for the use of guanylate cyclase-C agonists in an injectable product for the diagnosis, prevention or treatment of indications other than GI diseases and disorders with the prior written consent of Ironwood.

The Distribution. The separation agreement will govern the rights and obligations of the parties with respect to the distribution and certain actions that must occur prior to the distribution. Ironwood will cause its agent to distribute to holders of shares of Ironwood's common stock as of the record date for the distribution all of the issued and outstanding shares of our common stock. Ironwood will have the sole and absolute discretion to determine (and change) the terms of, and whether to proceed with, the distribution and, to the extent it determines to so proceed, to determine the date of the distribution.

Conditions. The separation agreement will provide that the distribution is subject to several conditions that must be satisfied (or waived by Ironwood, in its sole and absolute discretion). For further information regarding these conditions, see "The Separation and Distribution—Conditions to the Distribution."

Indemnification. The separation agreement will provide for releases, with respect to pre-distribution claims, and cross-indemnities, with respect to post-distribution claims, that, except as otherwise provided in the separation agreement, are principally designed to place financial responsibility for the obligations and liabilities allocated to us under the separation agreement with us and financial responsibility for the obligations and liabilities allocated to Ironwood under the separation agreement with Ironwood. The separation agreement will also specify procedures with respect to claims subject to indemnification and related matters. Indemnification with respect to taxes will be governed by the tax matters agreement described below.

Term/Termination. Prior to the distribution, Ironwood will have the unilateral right to terminate, modify or amend the terms of the separation agreement and amend, modify or abandon the distribution. After the effective time of the distribution, the separation agreement may only be terminated, modified or amended with the prior written consent of both Ironwood and us.

Other Matters Governed by the Separation Agreement. Other matters governed by the separation agreement include, without limitation, access to financial and other information, insurance, confidentiality and access to and provision of records.

Development Agreement

We intend to enter into a development agreement with Ironwood prior to or concurrently with the completion of the separation. Under the development agreement, we will provide Ironwood with certain research and development services with respect to certain of Ironwood's products and product candidates, including without limitation MD-7246 (linaclotide delayed release) and IW-3718. Such research and development activities will be governed by a joint steering committee comprised of representatives from both Cyclerion and Ironwood. Ironwood will pay us fees for such research and development services, which fees will be mutually agreed upon by us and Ironwood as provided under this development agreement with certain allowances for specified overages.

Transitional Services Agreements

Ironwood Transitional Services. Historically, Ironwood has provided us significant corporate and shared services and resources related to corporate functions such as finance, human resources, internal audit, research and development, financial reporting and information technology, which we refer to collectively as the "Ironwood Services." This transitional services agreement will become operative as of the completion of this separation and each of the Ironwood Services will continue for an initial term of between one to two years (as applicable), unless earlier terminated or extended according to the terms of the transitional services agreement. We will pay Ironwood fees for the Ironwood Services, to be mutually agreed upon by us and Ironwood as provided under this transitional services agreement, which fees will be based on Ironwood's cost of providing the Ironwood Services.

Cyclerion Transitional Services. We also intend to enter into a second transitional services agreement whereby we will provide certain finance, procurement and facilities services to Ironwood, which we refer to herein collectively as the "Cyclerion Services." This second transitional services agreement will be effective as of the completion of this separation and each of the Cyclerion Services will continue for an initial term of one year, unless earlier terminated or extended according to the terms of such transitional services agreement. Ironwood will pay us fees for the Cyclerion Services, to be mutually agreed upon by us and Ironwood as provided under this transitional services agreement, which fees will be based on our cost of providing the Cyclerion Services.

Intellectual Property License Agreement

We intend to enter into an intellectual property license agreement with Ironwood prior to the distribution pursuant to which each party will grant a license to certain know-how. Ironwood will grant Cyclerion a perpetual, worldwide, non-exclusive, royalty-free, fully paid-up license to certain know-how to allow Cyclerion to use such know-how in connection with Cyclerion's ongoing and future research and development activities related to sGC stimulator products in any field. Cyclerion will grant Ironwood a perpetual, worldwide, non-exclusive, royalty-free, fully paid-up license to certain know-how for use outside of the research and development of sGC stimulator products, including in Ironwood's existing products and product candidates. Such licenses between the parties generally will allow current or future uses of the know-how in connection with each party's respective fields.

Tax Matters Agreement

Allocation of taxes. We intend to enter into a tax matters agreement with Ironwood prior to the separation that will govern Ironwood's and Cyclerion's respective rights, responsibilities and obligations with respect to taxes (including taxes arising in the ordinary course of business and taxes, if any,

incurred as a result of any failure of the distribution and certain related transactions to qualify as tax-free for U.S. federal income tax purposes), tax attributes, the preparation and filing of tax returns, the control of audits and other tax proceedings and assistance and cooperation in respect of tax matters. In general, under the agreement:

- Ironwood is responsible for any U.S. federal, state, local or foreign taxes (and any related interest, penalties or audit adjustments and including those taxes attributable to Cyclerion's business) reportable on a consolidated, combined or unitary return that includes Ironwood or any of its subsidiaries (and Cyclerion and/or any of its subsidiaries) for any periods or portions thereof ending on or prior to the date of the completion of the distribution. Cyclerion is responsible for the portion of any such taxes for periods or portions thereof beginning after such date, as would be applicable to Cyclerion and/or any of its subsidiaries if it filed the relevant tax returns on a standalone basis.

- Cyclerion is responsible for any U.S. federal, state, local or foreign taxes (and any related interest, penalties or audit adjustments) that are reportable on returns that include only Cyclerion and/or any of its subsidiaries, for all tax periods whether before or after the completion of the distribution.

- Ironwood is responsible for certain taxes, if any, imposed on Ironwood and/or any of its subsidiaries and Cyclerion and/or any of its subsidiaries arising from, or attributable to, certain transfers of assets or liabilities in the separation.

Cyclerion is not generally entitled to receive payment from Ironwood in respect of any of Cyclerion's tax attributes or tax benefits or any reduction of taxes of Ironwood. Neither party's obligations under the agreement are limited in amount or subject to any cap. The agreement also assigns responsibilities for administrative matters, such as the filing of returns, payment of taxes due, retention of records and conduct of audits, examinations or similar proceedings. In addition, the agreement provides for cooperation and information sharing with respect to tax matters.

Ironwood is primarily responsible for preparing and filing any tax return with respect to the Ironwood affiliated group for U.S. federal income tax purposes and with respect to any consolidated, combined, unitary or similar group for U.S. state or local or foreign tax purposes that includes Ironwood or any of its subsidiaries (including those that also include Cyclerion and/or any of its subsidiaries), as well as any tax return that includes only Ironwood and/or any of its subsidiaries (including such tax returns that reflect taxes attributable to Cyclerion's business). Cyclerion is generally responsible for preparing and filing any tax returns that include only Cyclerion and/or any of its subsidiaries.

Ironwood generally has exclusive authority to control tax contests with respect to joint tax returns and tax returns that include only Ironwood and/or any of its subsidiaries. Cyclerion generally has exclusive authority to control tax contests with respect to tax returns that include only Cyclerion and/or any of its subsidiaries. The non-controlling party will generally have participation rights with respect to any tax contests to the extent the non-controlling party may be liable for any taxes pursuant to such tax contest.

Preservation of the tax-free status of certain aspects of the separation. The tax matters agreement will impose certain restrictions on us and our subsidiaries (including restrictions on share issuances, business combinations, sales of assets and similar transactions) that will be designed to preserve the tax-free status of the distribution and certain related transactions. The tax matters agreement will provide special rules that allocate tax liabilities in the event the distribution, together with certain related transactions, is not tax-free. In general, under the tax matters agreement, each party is expected to be responsible for any taxes imposed on Ironwood or Cyclerion that arise from the failure of the distribution, together with certain related transactions, to qualify as a transaction that is generally

tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) and certain other relevant provisions of the Code, to the extent that the failure to so qualify is attributable to an acquisition of stock or assets of, or certain actions, omissions or failures to act of, such party. If both Cyclerion and Ironwood are responsible for such failure, liability will be shared according to relative fault. U.S. tax otherwise resulting from the failure of the distribution, together with certain related transactions, to qualify as a transaction that is tax-free generally will be the responsibility of Ironwood.

Cyclerion has agreed to certain covenants that contain restrictions intended to preserve the tax-free status of the distribution and certain related transactions. Cyclerion may take certain actions prohibited by these covenants only if Cyclerion obtains and provides to Ironwood either (i) a private letter ruling from the IRS or (ii) an opinion from a U.S. tax counsel or accountant of recognized national standing, in either case reasonably acceptable to Ironwood, to the effect that such action would not jeopardize the tax-free status of these transactions. Cyclerion is barred from taking any action, or failing to take any action, where such action or failure to act adversely affects or could reasonably be expected to adversely affect the tax-free status of these transactions, for all time periods. In addition, during the time period ending two years after the date of the distribution these covenants include specific restrictions on Cyclerion's:

- issuance or sale of stock or other securities (including securities convertible into Cyclerion stock but excluding certain compensatory arrangements);
- sales of assets outside the ordinary course of business; and
- entering into any other corporate transaction which would cause Cyclerion to undergo a 3% or greater change in its stock ownership, exclusive of the private placement.

Cyclerion has generally agreed to indemnify Ironwood and its affiliates against any and all tax-related liabilities incurred by them relating to the distribution, including for any taxes, interest, penalties and other costs, including any reductions in Ironwood's net operating losses or other tax assets, to the extent caused by an acquisition of Cyclerion stock or assets or certain actions by Cyclerion, as further described in "—Material U.S. Federal Income Tax Consequences if the Distribution is Taxable." This indemnification provision applies even if Ironwood has permitted Cyclerion to take an action that would otherwise have been prohibited under the tax-related covenants described above.

Employee Matters Agreement

We intend to enter into an employee matters agreement with Ironwood prior to the distribution. The employee matters agreement allocates assets, liabilities and responsibilities relating to the employment, compensation, and employee benefits of Ironwood and Cyclerion employees, and other related matters in connection with the separation, including the treatment of outstanding incentive equity awards and certain retirement and welfare benefit obligations. The employee matters agreement will generally provide that, unless otherwise specified, Cyclerion will be responsible for liabilities associated with employees who transfer to Cyclerion and employees whose employment terminated prior to the distribution but who primarily supported the Cyclerion business, whether incurred prior to or after the distribution, and Ironwood will be responsible for liabilities associated with other employees, including employees retained by Ironwood.

Cyclerion 401(k) Plan

The employee matters agreement will provide that, prior to the distribution, Ironwood will cause Cyclerion to adopt a defined contribution 401(k) plan, which will be substantially similar in all material respects to Ironwood's 401(k) plan. The assets and liabilities under the Ironwood 401(k) plan with respect to Cyclerion employees will be transferred to the Cyclerion 401(k) plan.

Cyclerion Health and Welfare Plans

The employee matters agreement will provide that Cyclerion will establish health and welfare plans that correspond to the Ironwood health and welfare plans in which Cyclerion employees participate immediately prior to the distribution. Cyclerion employees will be eligible to participate in Cyclerion's health and welfare plans as of the distribution date. Ironwood will generally retain liability for claims incurred under Ironwood's health and welfare plans for Cyclerion employees prior to the distribution. Cyclerion will generally assume liability for claims incurred under Ironwood's health and welfare plans following the distribution.

To the extent practicable, Cyclerion will cause its plans to waive any preexisting condition limitations. Cyclerion will also cause its medical plan to honor any deductibles incurred by Cyclerion employees under an Ironwood medical plan during the portion of the calendar year prior to the distribution for purposes of satisfying deductibles and out-of-pocket maximums.

Cyclerion Omnibus Plan; Cyclerion Employee Stock Purchase Plan

The employee matters agreement will provide that, prior to the distribution, Ironwood will cause Cyclerion to adopt an omnibus equity incentive plan and an employee stock purchase plan intended to meet the requirements of Section 423 of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations promulgated thereunder, and take all actions that may be necessary to approve such plans in order to satisfy the requirements of the Code and the regulations of the Nasdaq Global Select Market.

Equity Compensation

The employee matters agreement will provide that outstanding Ironwood equity awards held by Cyclerion and Ironwood employees will be adjusted in accordance with the following principles:

- For each award, the intent is to maintain, immediately following the distribution date, the economic value of the award immediately before the distribution date.
- For both Cyclerion and Ironwood employees, except as noted below, vested Ironwood equity awards will be converted into equity awards of both Ironwood and Cyclerion using the "basket approach" (as described below).
- For Cyclerion employees, except as noted below, unvested Ironwood equity awards will be converted into Cyclerion equity awards using the "concentration approach" (as described below).
- For Ironwood employees, unvested Ironwood equity awards will remain as Ironwood equity awards using the "concentration approach."
- For non-employee directors of Cyclerion who had been non-employee directors of Ironwood, if any, unvested Ironwood restricted stock will be converted into unvested Cyclerion restricted stock using the "concentration approach."
- For non-employee directors of Ironwood who remain non-employee directors of Ironwood, unvested Ironwood restricted stock will continue as unvested Ironwood restricted stock, adjusted using the "concentration approach."
- To the extent any adjustments to outstanding equity awards result in fractional interests in shares, the fractional interests will be rounded down to the nearest whole share and Ironwood or Cyclerion, as the case may be, will make a cash payment to its respective employees in lieu of such fractional interests.

Basket Approach. Following the distribution, the number of shares underlying converted Cyclerion equity awards (whether held by Ironwood or Cyclerion employees) will be determined according to a

fixed ratio of one share of Cyclerion common stock for every 10 shares of Ironwood common stock. The exercise price associated with converted Cyclerion equity awards (whether held by Ironwood or Cyclerion employees) will be determined according to formulas based on the 10-day volume weighted average trading price of Ironwood common stock for the 10 days immediately preceding the distribution and the purchase price of Cyclerion common stock paid in the private placement.

Concentration Approach. Following the distribution, the number of shares underlying converted Cyclerion equity awards and any associated exercise prices will be determined according to formulas based on the 10-day volume weighted average trading price of Ironwood common stock for the 10 days immediately preceding the distribution and the purchase price of Cyclerion common stock paid in the private placement.

The following table contains a summary of the expected treatment of each type of Ironwood equity award. As a result of the adjustments to such awards in connection with the distribution, the precise number of Cyclerion awards resulting from the conversion of Ironwood awards will not be known until following the distribution date.

Type of Ironwood Award	Cyclerion Employees	Ironwood Employees
Vested Stock Options (other than Vested Incentive Stock Options granted under the Ironwood 2010 Incentive Plan)	Continue to hold vested Ironwood stock options and receive a pro rata portion of vested stock options of Cyclerion, each as equitably adjusted to reflect the distribution	Continue to hold vested Ironwood stock options and receive a pro rata portion of vested stock options of Cyclerion, each as equitably adjusted to reflect the distribution
Vested Incentive Stock Options (ISOs) granted under the Ironwood 2010 Incentive Plan	Substitute with vested Cyclerion ISOs, unless employee elects to convert to non-qualified stock options of both Ironwood and Cyclerion, each as equitably adjusted to reflect the distribution	Continue to hold vested Ironwood ISOs, unless employee elects to convert to non-qualified stock options of both Ironwood and Cyclerion, each as equitably adjusted to reflect the distribution
Unvested Stock Options	Substitute with unvested Cyclerion stock options of comparable value	Continue to hold unvested Ironwood stock options, as equitably adjusted to reflect the distribution
Restricted Stock Units (other than July 2018 Recognition Restricted Stock Units)	Substitute with Cyclerion restricted stock units of comparable value	Continue to hold Ironwood restricted stock units, as equitably adjusted to reflect the distribution
July 2018 Recognition Restricted Stock Units	Continue to hold Ironwood restricted stock units, as equitably adjusted to reflect the distribution	Continue to hold Ironwood restricted stock units, as equitably adjusted to reflect the distribution

At the time of the distribution, it is expected that each Ironwood equity award to be converted into a Cyclerion equity award will be subject to substantially the same terms and vesting conditions as were applicable to the Ironwood equity awards prior to the distribution.

Private Placement

Common Stock Purchase Agreement

On February 25, 2019, Cyclerion and various investors entered into an amended and restated common stock purchase agreement pursuant to which these investors agreed to make an aggregate cash investment in Cyclerion of up to $175.0 million in exchange for shares of Cyclerion common stock at a purchase price per share determined as set forth below.

These investors included the following, each of whom is either a Cyclerion director, a Cyclerion executive officer, an immediate family member of a Cyclerion director or executive officer, an entity related to such a director, executive officer or immediate family member, or is expected to beneficially own at least 5% of Cyclerion common stock following the separation, after taking into account the shares of Cyclerion common stock expected to be issued in the private placement: Artal International S.C.A., accounts managed by direct or indirect subsidiaries of FMR LLC, MFN Partners, LP, a donor advised fund created by Peter M. Hecht, Ph.D., our Chief Executive Officer, Mark Currie, our President, and certain members of Dr. Hecht's immediate family, including through a trust or donor advised fund. Artal International S.C.A. agreed to invest up to $20,000,000, accounts managed by direct or indirect subsidiaries of FMR LLC agreed to invest up to $17,500,004, MFN Partners, LP agreed to invest up to $15,000,000, the donor advised fund created by Dr. Hecht agreed to invest up to $34,000,000, Dr. Currie agreed to invest up to $4,000,000 and Dr. Hecht's immediate family agreed to invest up to $6,800,000 in the aggregate. Certain of these investors are financing all or a portion of their investment in Cyclerion through sales of Ironwood common stock. The closing of the private placement is expected to take place immediately following the distribution. Prior to the closing of the private placement, Cyclerion may join, in its sole discretion, on substantially the same terms and conditions as those contained in the purchase agreement, additional parties as investors in the private placement.

The number of shares of Cyclerion common stock to be issued to each investor upon closing of the private placement will be determined by dividing the cash contribution made by each investor by the purchase price, rounded up to the nearest whole share. The purchase price will be determined by dividing $250.0 million, the pre-money valuation of Cyclerion, by a number equal to the total number of (a) shares of Cyclerion common stock outstanding, (b) Cyclerion restricted stock units outstanding and (c) shares of Cyclerion common stock issuable pursuant to the exercise of options outstanding (determined in accordance with the treasury stock method), in each case after giving effect to the distribution.

The shares issuable in the private placement are subject to a cap equal to 46% of the shares of Cyclerion common stock outstanding (or a lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution), after giving effect to the issuance of shares in the private placement. In the event that the aggregate cash investment in the private placement would result in the issuance of shares of Cyclerion common stock in excess of this cap, each investor's cash investment in the private placement would be reduced, on a pro rata basis, by an amount needed to result in the issuance in the aggregate of no more than 46% of the shares of Cyclerion common stock outstanding (or such lower threshold determined by Ironwood and Cyclerion to be necessary to preserve the tax-free nature of the distribution).

Conditions to the Private Placement

Pursuant to the purchase agreement, the completion of the private placement is subject to certain conditions, including, among other conditions, (i) the accuracy of certain representations and warranties, (ii) each party's performance of its covenants and agreements, (iii) the listing of Cyclerion common stock on the Nasdaq Global Market, (iv) the absence of a material adverse effect on Cyclerion, (v) the SEC declaring effective Cyclerion's registration statement on Form 10 of which this information statement forms a part in substantially the form previously provided to the investors, (vi) the completion of the distribution, (vii) the receipt by Cyclerion of an opinion from KPMG LLP that the separation and distribution, taken together, qualify as a reorganization under Section 368(a)(1)(D) of the Code, and except for cash received in lieu of any fractional shares, the distribution qualifies as tax-free under Section 355(a) of the Code to Ironwood Stockholders and as tax-free to Ironwood under Section 361 of the Code, and (viii) that the sale of shares of Cyclerion common stock at the closing of the private placement, after giving effect to reductions (if any) to preserve the tax-free nature of the transaction, result in aggregate proceeds to Cyclerion of at least $150.0 million (subject to reduction for the amount of any investor commitment cutbacks necessary to ensure certain investors' aggregate ownership of Cyclerion common stock does not exceed 9.99% of the total outstanding shares).

Representation and Warranties

The purchase agreement contains customary representations and warranties made by the investors to Cyclerion, and customary representations and warranties made by Cyclerion to the investors.

Covenants

Pursuant to the purchase agreement, Cyclerion has various obligations before and after the closing, including, using commercially reasonable efforts to consummate the separation and distribution as soon as practicable following the date of the purchase agreement, using commercially reasonable efforts to make all timely filings under the Exchange Act to enable investors to sell their shares under Rule 144, using commercially reasonable efforts to avoid any integration with any other offer or sale of securities that would require registration under the Securities Act, delivering to each investor evidence of the book-entry issuance of the shares of Cyclerion common stock purchased by such investor within three trading days of the closing date and timely filing a Form D and making all applicable securities and "Blue Sky" filings as may be required by federal and state securities laws.

Registration Rights

Pursuant to the terms of the purchase agreement, within five business days after the closing of the private placement, Cyclerion will be required to file a shelf registration statement on Form S-1 with the SEC registering the resale of shares of Cyclerion common stock held by the investors and to use commercially reasonable efforts to cause such shelf registration statement to become effective. Cyclerion will pay all expenses associated with the shelf registration statement, except for underwriting discounts and commissions.

Cyclerion will indemnify the investors for any damages arising out of or resulting from (a) any untrue or alleged untrue statement of a material fact contained in any registration statement under which shares of Cyclerion common stock held by the investors are registered or sold or any other disclosure document produced by or on behalf of Cyclerion or (b) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, provided that such indemnity will not apply to any damages arising out of or resulting from any untrue statement or omission contained in any information relating to such investor furnished

in writing by an investor to the Company expressly for use in a registration statement, in which case, the investors will indemnify Cyclerion for damages relating to such statements.

Termination

The purchase agreement will terminate immediately upon the termination of the separation agreement prior to the closing of the private placement, provided that if the closing of the private placement has not occurred on or before April 15, 2019, either Cyclerion or the investors representing at least a majority of the shares of Cyclerion common stock to be issued under the purchase agreement may terminate the purchase agreement upon written notice to Cyclerion and each of the investors. In addition, if the closing of the private placement has not occurred on or before May 15, 2019, any investor may terminate the purchase agreement as to itself by written notice to the Company.

Related Party Transactions Policy

In connection with this separation, we plan to adopt a related party transactions policy that will govern the review and approval of related party transactions following this separation. Pursuant to this policy, if we want to enter into a transaction with a related party or an affiliate of a related party, our audit committee will review the proposed transaction to determine, based on applicable rules of Nasdaq and the SEC, whether such transaction requires pre-approval by our audit committee or our board of directors. If pre-approval is required, the proposed transaction will be reviewed at the next regular or special meeting of our audit committee or our board of directors, as applicable. We may not enter into a related party transaction unless our audit committee has specifically confirmed in writing that either no further reviews are necessary or that all requisite corporate reviews have been obtained.

Each of the agreements between us and Ironwood and its subsidiaries that have been entered into prior to the completion of this separation, and any transactions contemplated thereby, will be deemed to be approved and not subject to the terms of such policy.

SECURITY OWNERSHIP BY CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Prior to the distribution, all of the outstanding shares of our common stock will be owned beneficially and of record by Ironwood. The following tables set forth information with respect to the expected beneficial ownership of our common stock immediately following the distribution and prior to giving effect to the private placement by: (i) each person who we believe will be a beneficial owner of more than five percent of our common stock, (ii) each of our expected directors and named executive officers and (iii) all of our expected directors and executive officers as a group. Except as noted below, we based the share amounts on each person's beneficial ownership of Ironwood common stock as of December 31, 2018, after giving effect to a distribution ratio of one share of Cyclerion common stock for every 10 shares of Ironwood common stock. Immediately following the distribution, we estimate that 15,548,838 shares of our common stock will be issued and outstanding based on the number of shares of Ironwood common stock outstanding as of February 25, 2019. The actual number of our outstanding shares of our common stock issued in the distribution will be determined on , 2019, the record date. Unless otherwise indicated, the address of each beneficial owner is in care of 301 Binney Street, Cambridge, MA 02142.

Security Ownership of Certain Beneficial Owners

Based solely on the information publicly available reporting beneficial ownership of Ironwood common stock, we anticipate the following shareholders will beneficially own more than five percent of our common stock following the distribution.

Name of Beneficial Owner	Number of Shares of Our Common Stock	Percent of Shares Outstanding
Wellington Management Group LLP(1)	1,960,006	12.6%
FMR LLC (Fidelity)(2)	1,487,236	9.6%
The Vanguard Group(3)	1,336,055	8.6%
BlackRock, Inc.(4)	1,231,756	7.9%
Brown Capital Management, LLC(5)	1,012,933	6.5%
UBS Group AG(6)	859,167	5.5%

(1) Based upon the information provided by Wellington Management Group LLP ("Wellington"), Wellington Group Holdings LLP ("Wellington Group"), Wellington Investment Advisors Holdings LLP ("Wellington Investment") and Wellington Management Company LLP ("Wellington Management," collectively with Wellington, Wellington Group and Wellington Investment, the "Wellington Entities") in a Schedule 13G/A filed on February 12, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, (i) each of Wellington, Wellington Group and Wellington Investment has sole voting and dispositive power with respect to none of these shares, shared voting power with respect to 1,183,989 of these shares, and shared dispositive power with respect to all of these shares and (ii) Wellington Management has sole voting and dispositive power with respect to none of these shares, shared voting power with respect to 1,144,593 of these shares, and shared dispositive power with respect to 1,807,923 of these shares. The address of the Wellington Entities is c/o Wellington Management Company LLP, 280 Congress Street, Boston, MA 02210.

(2) Based upon the information provided by FMR LLC ("FMR") and Abigail P. Johnson in a Schedule 13G/A filed on February 13, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, (i) FMR has sole voting power with respect to 346,621 of these shares, sole dispositive power with respect to all of these shares, and shared voting and dispositive power with respect to none of these shares, and (ii) Ms. Johnson has neither sole nor shared voting power with respect to these shares and sole dispositive power with respect to all of these shares and shared dispositive power with respect to

none of these shares. The address of FMR and Ms. Johnson is 245 Summer Street, Boston, MA 02210.

(3) Based upon the information provided by The Vanguard Group ("Vanguard") in a Schedule 13G/A filed on February 13, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, Vanguard has sole voting power with respect to 29,152 of these shares, sole dispositive power with respect to 1,306,340 of these shares, shared voting power with respect to 1,940 of these shares and shared dispositive power with respect to 29,715 of these shares. The address of Vanguard is 100 Vanguard Blvd., Malvern, PA 19355.

(4) Based upon the information provided by BlackRock, Inc. ("BlackRock") in a Schedule 13G/A filed on February 4, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, BlackRock has sole voting power with respect to 1,187,450 of these shares, sole dispositive power with respect to all of these shares, and shared voting and shared dispositive power with respect to none of these shares. The address of BlackRock is 55 East 52nd Street, New York, NY 10055.

(5) Based upon the information provided by Brown Capital Management, LLC ("Brown") in a Schedule 13G/A filed on February 14, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, Brown has sole voting power with respect to 644,989 of these shares, sole dispositive power with respect to all of these shares and shared voting and shared dispositive power with respect to none of these shares. The address of Brown is 1201 N. Calvert Street, Baltimore, MD 21202.

(6) Based upon the information provided by UBS Group AG ("UBS") in a Schedule 13G/A filed on February 13, 2019, reporting ownership of Ironwood common stock as of December 31, 2018. According to the information included in this Schedule 13G/A, UBS has sole voting power with respect to 763,237 of these shares, shared dispositive power with respect to all of these shares, and shared voting and sole dispositive power with respect to none of these shares. The address of UBS is Bahnhofstrasse 45. Zurich, Switzerland.

Security Ownership of Directors and Executive Officers

The following table provides information regarding beneficial ownership of our named executive officers, our expected directors and all of our expected directors and executive officers as a group as of December 31, 2018.

Name of Beneficial Owner	Number of Shares of Our Common Stock[1]	Percent of Shares Outstanding
Peter M. Hecht, Ph.D.(2)	471,146	3.0%
Mark G. Currie, Ph.D.	80,512	*
William Huyett	6,825	*
Kevin Churchwell	—	—
George Conrades	1,913	*
Marsha Fanucci	13,671	*
Ole Isacson	—	—
Stephanie Lovell	—	—
Terrance McGuire(3)	14,823	*
Michael Mendelsohn	—	—
Amy Schulman	4,211	*
Directors and Officers as a Group (11 persons)	593,101	3.8%

* Less than one percent

(1) Does not include shares of Cyclerion common stock that may be issued upon exercise or settlement of Cyclerion equity awards that will be converted from Ironwood equity awards in connection with the distribution, as the conversion ratio is not currently calculable and such shares will not affect the beneficial ownership of our directors and named executive officers at the time of the distribution unless the equity awards are exercised or settled prior to the record date of the distribution.

(2) Includes 1,455 shares of Cyclerion common stock held in trusts for the benefit of Dr. Hecht's children and of which Dr. Hecht may be deemed the beneficial owner.

(3) Includes 162 shares of Cyclerion common stock held by Polaris Venture Management Co. II, L.L.C. and 6,911 shares of Cyclerion common stock held by Bartlett Partners, LLC. Mr. McGuire is a managing member of Bartlett Partners, LLC and Polaris Venture Management Co. II, L.L.C. and has shared voting and investment authority over these shares.

THE SEPARATION AND DISTRIBUTION

Overview

On May 1, 2018, Ironwood announced its plans to separate its sGC business from its commercial and gastrointestinal businesses through a pro rata distribution of Cyclerion common stock to stockholders of Ironwood. The distribution is intended to be generally tax-free for U.S. federal income tax purposes.

In furtherance of this plan, on , 2019, Ironwood's board of directors approved the distribution of all of the issued and outstanding shares of Cyclerion common stock on the basis of one share of Cyclerion common stock for every 10 shares of Ironwood common stock issued and outstanding as of the close of business on , 2019, the record date for the distribution. As a result of the distribution, Cyclerion and Ironwood will become two independent, publicly traded companies.

On , 2019, the distribution date, each Ironwood stockholder will receive one share of Cyclerion common stock for every 10 shares of Ironwood common stock held of record at the close of business on the record date, as described below. Registered stockholders will receive cash in lieu of any fractional shares of Cyclerion common stock that they would have received as a result of the application of the distribution ratio. Stockholders will not be required to make any payment, surrender or exchange their Ironwood common stock or take any other action to receive shares of Cyclerion common stock in the distribution.

The distribution of Cyclerion common stock as described in this information statement is subject to the satisfaction or waiver of certain conditions. For a more detailed description of these conditions, see this section under "—Conditions to the Distribution."

Reasons for the Separation

Ironwood's board of directors determined that separating the sGC business from Ironwood would be in the best interests of Ironwood and its stockholders and approved the plan of separation. A wide variety of factors were considered by Ironwood's board of directors in evaluating the separation. Among other things, Ironwood's board of directors considered the following potential benefits of the separation:

- the separation will allow each business to pursue its own operational and strategic priorities and more quickly respond to trends, developments and opportunities in its respective markets;
- the separation will create two separate and distinct management teams focused on each business's unique strategic priorities, target markets and corporate development opportunities;
- the separation will give each business opportunity and flexibility by pursuing its own investment, capital allocation and growth strategies consistent with its long-term objectives;
- the separation will enable the boards and management teams of each business to better align corporate performance goals with the specific vision, strategy and objectives of each business; and
- the separation will allow investors to separately value each business based on the unique merits, performance and future prospects of each business, providing investors with two distinct investment opportunities.

Ironwood's board of directors also considered a number of potentially negative factors in evaluating the separation, including the following factors impacting Cyclerion:

- Ironwood and Cyclerion may not achieve the anticipated benefits of the separation for a variety of reasons, including: (i) the separation will require significant amounts of management's time and effort, which may divert management's attention from operating and growing the Ironwood and Cyclerion businesses and (ii) following the separation, each business will be less diversified than Ironwood's business prior to the separation;

- costs and liabilities that were less significant to Ironwood as a whole will be more significant for Cyclerion as a standalone company, and after the distribution, as a separate, independent entity, Cyclerion may be unable to obtain goods, services and technologies at prices or on terms as favorable as those Ironwood obtained prior to the distribution;

- Cyclerion will incur costs in connection with the transition to being a standalone public company that will include establishment of accounting, tax, auditing, legal and other professional services costs, recruiting and relocation costs associated with hiring personnel new to Cyclerion and costs to separate information systems;

- under the terms of the tax matters agreement that Cyclerion intends to enter into with Ironwood, for a period of two years following the distribution, Cyclerion will be restricted from taking certain actions that could cause the distribution, together with certain related transactions, to fail to qualify as a tax-free transaction for U.S. federal income tax purposes, which may limit Cyclerion's ability to pursue certain strategic transactions and equity issuances or engage in other transactions that might increase the value of its business; and

- the trading prices of Cyclerion and Ironwood common stock following the separation, and whether the combined market value of shares of Cyclerion common stock and shares of Ironwood common stock will be less than, equal to, or greater than the market value of shares of Ironwood common stock prior to the separation, cannot be predicted with certainty.

Ironwood's board of directors concluded that the potential benefits of the separation outweighed these factors. However, neither Ironwood nor Cyclerion can assure you that, following the separation, any of the benefits described above or otherwise will be realized to the extent anticipated or at all. For more information on the risks involved in the separation process, see "Risk Factors—Risks Related to the Separation and the Private Placement."

Formation of a Holding Company Prior to the Distribution

In connection with and prior to the distribution, Cyclerion was incorporated by Ironwood in the Commonwealth of Massachusetts on September 6, 2018, for the purpose of holding Ironwood's sGC business in connection with the separation described herein. As part of the plan to create two independent public companies, Ironwood plans to transfer the assets and liabilities of the sGC business to Cyclerion and its subsidiaries prior to the distribution through an internal reorganization.

When and How You Will Receive the Distribution

With the assistance of the distribution agent, Ironwood expects to distribute Cyclerion common stock on , 2019, the distribution date, to all holders of outstanding Ironwood common stock as of the close of business on , 2019, the record date. Computershare Trust Company, N.A. will serve as the distribution agent in connection with the distribution.

If you own Ironwood common stock as of the close of business on the record date, Cyclerion common stock that you are entitled to receive in the distribution will be issued electronically, as of the distribution date, to you in direct registration form or to your bank or brokerage firm on your behalf. If

you are a registered holder, the distribution agent or the transfer agent will then mail you a direct registration account statement that reflects your shares of Cyclerion common stock. "Direct registration form" refers to a method of recording share ownership when no physical share certificates are issued to shareholders, as is the case in this distribution.

Commencing on or shortly after the distribution date, if you hold physical share certificates that represent your Ironwood common stock and you are the registered holder of the shares represented by those certificates, the distribution agent will mail to you an account statement that indicates the number of shares of Cyclerion common stock that have been registered in book-entry form in your name, and the distribution agent will mail you a check for any cash in lieu of fractional shares you are entitled to receive. If you sell Ironwood common stock in the "regular way" market up to and including the distribution date, you will be selling your right to receive shares of Cyclerion common stock in the distribution.

Most Ironwood stockholders hold their common stock through a bank or brokerage firm. In such cases, the bank or brokerage firm would be said to hold the shares in "street name" and ownership would be recorded on the bank or brokerage firm's books. If you hold your Ironwood common stock through a bank or brokerage firm, your bank or brokerage firm will credit your account for the Cyclerion common stock that you are entitled to receive in the distribution. If you have any questions concerning the mechanics of having shares held in "street name," please contact your bank or brokerage firm.

Results of the Distribution

After its separation from Ironwood, Cyclerion will be an independent, publicly traded company. The actual number of shares to be distributed will be determined on , 2019, the record date for the distribution, and will reflect any exercise of Ironwood options between the date the Ironwood board of directors declares the distribution and the record date for the distribution. The distribution will not affect the number of outstanding shares of Ironwood common stock or any rights of Ironwood's stockholders. Ironwood will not distribute any fractional shares of Cyclerion common stock.

Prior to the distribution, Cyclerion intends to enter into a separation agreement and other agreements with Ironwood to effect the separation and govern Cyclerion's relationship with Ironwood after the separation. These agreements will provide for the allocation between Ironwood and Cyclerion of Ironwood's assets, liabilities and obligations (including employee benefits, intellectual property and tax-related assets and liabilities) attributable to periods prior to and after Cyclerion's separation from Ironwood and will govern certain relationships between Ironwood and Cyclerion after the separation. For a more detailed description of these agreements, see "Certain Relationships and Related Person Transactions—Agreements with Ironwood."

The Number of Shares of Cyclerion Common Stock You Will Receive

For every 10 shares of Ironwood common stock that you own at the close of business on , 2019, the record date, you will receive one share of Cyclerion common stock on the distribution date. Ironwood will not distribute any fractional shares of Cyclerion common stock to its stockholders. Instead, the distribution agent will aggregate fractional shares into whole shares, sell the whole shares in the open market at prevailing market prices and distribute the aggregate cash proceeds (net of discounts and commissions) of the sales pro rata (based on the fractional share such holder would otherwise have been entitled to receive) to each holder who otherwise would have been entitled to receive a fractional share in the distribution. The distribution agent, in its sole discretion, without any influence by Ironwood or Cyclerion, will determine when, how, through which broker-dealer and at what price to sell the whole shares. Computershare Trust Company, N.A. is not an affiliate of either Ironwood or Cyclerion. Any broker-dealer used by the transfer agent will not be an affiliate of either

Ironwood or Cyclerion. Neither Cyclerion nor Ironwood will be able to guarantee any minimum sale price in connection with the sale of these shares. Recipients of cash in lieu of fractional shares will not be entitled to any interest on the amounts of payment made in lieu of fractional shares.

The aggregate net cash proceeds distributed to Ironwood stockholders in lieu of fractional shares will be taxable for U.S. federal income tax purposes. See "Material U.S. Federal Income Tax Consequences" for an explanation of the material U.S. federal income tax consequences of the distribution. If you hold physical certificates for Ironwood common stock and are the record holder, you will receive a check from the distribution agent in an amount equal to your pro rata share of the aggregate net cash proceeds of the sales. Cyclerion estimates that it will take approximately two weeks from the distribution date for the distribution agent to complete the distributions of the aggregate net cash proceeds. If you hold your Ironwood common stock through a bank or brokerage firm, your bank or brokerage firm will receive, on your behalf, your pro rata share of the aggregate net cash proceeds of the sales and will distribute to your account your share of such proceeds.

Transferability of Shares You Receive

Shares of Cyclerion common stock distributed to holders through the distribution will be transferable without registration under the Securities Act, except for shares received by persons who may be deemed to be Cyclerion affiliates. Persons who may be deemed to be Cyclerion's affiliates after the distribution generally include individuals or entities that control, are controlled by or are under common control with Cyclerion, which may include certain of Cyclerion executive officers, directors or principal shareholders. Securities held by Cyclerion affiliates will be subject to resale restrictions under the Securities Act. Cyclerion affiliates will be permitted to sell shares of Cyclerion common stock only pursuant to an effective registration statement or an exemption from the registration requirements of the Securities Act, such as the exemption afforded by Rule 144 promulgated under the Securities Act.

Market for Cyclerion Common Stock

There is currently no public trading market for Cyclerion common stock. Cyclerion has applied to have its common stock authorized for listing on the Nasdaq Global Market under the symbol "CYCN." Cyclerion has not and will not set the initial price of its common stock. The initial price will be established by the public markets.

Cyclerion cannot predict the price at which its common stock will trade after the distribution. In fact, the combined trading prices, after the distribution, of the shares of Cyclerion common stock that each Ironwood stockholder will receive in the distribution and Ironwood common stock held at the record date may not equal the "regular way" trading price of a share of Ironwood common stock immediately prior to the distribution. The price at which Cyclerion common stock trades may fluctuate significantly, particularly until an orderly public market develops. Trading prices for Cyclerion common stock will be determined in the public markets and may be influenced by many factors. See "Risk Factors—Risks Related to Ownership of Our Common Stock."

Trading Between the Record Date and Distribution Date

Beginning on or shortly before the record date and continuing up to and including through the distribution date, we expect that there will be two markets in Ironwood common stock: a "regular way" market and an "ex-distribution" market. Shares of Ironwood common stock that trade on the "regular way" market will trade with an entitlement to Cyclerion common stock distributed pursuant to the separation. Shares of Ironwood common stock that trade on the "ex-distribution" market will trade without an entitlement to Cyclerion common stock distributed pursuant to the distribution. Therefore, if you sell Ironwood common stock in the "regular way" market up to and including through the distribution date, you will be selling your right to receive Cyclerion common stock in the distribution. If

you own Ironwood common stock at the close of business on the record date and sell those shares on the "ex-distribution" market up to and including through the distribution date, you will receive the shares of Cyclerion common stock that you are entitled to receive pursuant to your ownership as of the record date of Ironwood common stock.

Furthermore, we anticipate that trading in our common stock will begin on a "when issued" basis on or shortly before the record date for the distribution and will continue up to and including the distribution date. "When issued" trading in the context of a separation refers to a sale or purchase made conditionally on or before the distribution date because the securities of the separated entity have not yet been distributed. The "when issued" trading market will be a market for Cyclerion common stock that will be distributed to holders of Ironwood common stock on the distribution date. If you owned Ironwood common stock at the close of business on the record date, you would be entitled to Cyclerion common stock distributed pursuant to the distribution. You may trade this entitlement to shares of Cyclerion common stock, without Ironwood common stock you own, on the "when issued" market. On the first trading day following the distribution date, "when issued" trading with respect to Cyclerion common stock will end, and "regular way" trading will begin.

Conditions to the Distribution

Cyclerion expects that the distribution will be effective at 12:01 a.m., Eastern Time, on , 2019, the distribution date, provided that certain conditions shall have been satisfied or waived by Ironwood in its sole and absolute discretion:

- the SEC declaring effective Cyclerion's registration statement on Form 10 of which this information statement forms a part, and no stop order relating to the registration statement shall be in effect and no proceedings for such purpose shall be pending before or threatened by the SEC, and the distribution of the information statement (or the Notice of Internet Availability of the Information Statement) to all holders of record of shares of Ironwood common stock as of the close of business on the record date;

- the shares of Cyclerion common stock to be distributed shall have been accepted for listing by Nasdaq, subject to official notice of distribution;

- the receipt and continuing validity of either (i) a private letter ruling from the IRS and an opinion from KPMG LLP, both satisfactory to Ironwood's board of directors, together confirming that the distribution, together with certain related transactions generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code, or (ii) an opinion of KPMG LLP, satisfactory to Ironwood's board of directors, confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code;

- the receipt and continuing validity of an opinion from an independent appraisal firm to Ironwood's board of directors, that is in form and substance acceptable to Ironwood in its sole and absolute discretion, confirming the solvency of Cyclerion after the distribution and, as to the compliance by Ironwood in declaring to pay the distribution, with surplus requirements under Delaware corporate law;

- all permits, registrations and consents required under the securities or blue sky laws of states or other political subdivisions of the United States or of other foreign jurisdictions in connection with the distribution shall have been received;

- no order, injunction, or decree issued by any court of competent jurisdiction or other legal restraint or prohibition preventing the consummation of the distribution or any of the related transactions shall be pending, threatened, issued or in effect;

- the board of directors of Ironwood shall have declared the distribution and approved all related transactions (and such declaration and approval not having been withdrawn);
- Cyclerion shall have executed and delivered the transaction agreements relating to the separation; and
- no other event or development existing or having occurred that, in the sole and absolute judgment of Ironwood's board of directors, makes it inadvisable to effect the distribution and other related transactions.

Ironwood and Cyclerion cannot assure you that any or all of these conditions will be met and, to the extent permissible under applicable law, Ironwood in its sole discretion may waive any of the conditions to the distribution. In addition, Ironwood will have the sole and absolute discretion to determine (and change) the terms of, and whether to proceed with, the distribution and, to the extent it determines to so proceed, to determine the record date for the distribution and the distribution date and the distribution ratio. Ironwood does not intend to notify its stockholders of any modifications to the terms of the separation that, in the judgment of its board of directors, are not material. For example, the Ironwood board of directors might consider material such matters as significant changes to the distribution ratio, the assets to be contributed or the liabilities to be assumed in the separation. To the extent that the Ironwood board of directors determines that any modifications by Ironwood materially change the material terms of the distribution or to abandon the distribution, Ironwood will notify Ironwood stockholders in a manner reasonably calculated to inform them about the modification as may be required by law, by, for example, publishing a press release, filing a Current Report on Form 8-K, or circulating a supplement to this information statement.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a discussion of material U.S. federal income tax consequences of the distribution of Cyclerion common stock to "U.S. holders" (as defined below) of Ironwood common stock. This summary is based on the Code, U.S. Treasury Regulations promulgated thereunder, rulings and other administrative pronouncements issued by the IRS, and judicial decisions, all as in effect on the date of this information statement, and all of which are subject to differing interpretation and change at any time, possibly with retroactive effect. This discussion applies only to U.S. holders of shares of Ironwood common stock who hold such shares as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion is based upon the assumption that the distribution, together with certain related transactions, will be consummated in accordance with the separation agreement and the other separation-related agreements and as described in this information statement. This summary is for general information only and is not tax advice. It does not discuss all aspects of U.S. federal income taxation that may be relevant to particular holders in light of their particular circumstances or to holders subject to special rules under the Code (including, but not limited to, insurance companies, tax-exempt organizations, financial institutions, broker-dealers, partners in partnerships (or entities or arrangements treated as partnerships for U.S. federal income tax purposes) that hold Ironwood common stock, pass-through entities (or investors therein), traders in securities who elect to apply a mark-to-market method of accounting, stockholders who hold Ironwood common stock as part of a "hedge," "straddle," "conversion," "synthetic security," "integrated investment" or "constructive sale transaction," individuals who receive Ironwood or Cyclerion common stock upon the exercise of employee stock options or otherwise as compensation, holders who are liable for the alternative minimum tax or any holders who actually or constructively own 5% or more of Ironwood's common stock). This discussion also does not address any tax consequences arising under the unearned Medicare contribution tax pursuant to Section 1411 of the Code, nor does it address any tax considerations under state, local or foreign laws or U.S. federal laws other than those pertaining to the U.S. federal income tax. The distribution may be taxable under such other tax laws and all holders should consult their own tax advisors with respect to the applicability and effect of any such tax laws.

If a partnership, including for this purpose any entity or arrangement that is treated as a partnership for U.S. federal income tax purposes, holds Ironwood common stock, the tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of the partnership. Holders of Ironwood common stock that are partnerships and partners in such partnerships should consult their own tax advisors about the U.S. federal income tax consequences of the distribution.

For purposes of this discussion, a "U.S. holder" is any beneficial owner of Ironwood common stock that is, for U.S. federal income tax purposes:

- an individual who is a citizen or a resident of the United States;
- a corporation, or other entity taxable as a corporation for U.S. federal income tax purposes, created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, (i) if a court within the United States is able to exercise primary supervision over its administration and one or more United States persons have the authority to control all of its substantial decisions or (ii) that has a valid election in place under applicable Treasury Regulations to be treated as a United States person.

THE FOLLOWING DISCUSSION IS A SUMMARY OF MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE DISTRIBUTION UNDER CURRENT LAW AND IS FOR GENERAL

INFORMATION ONLY. ALL HOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES OF THE DISTRIBUTION TO THEM, INCLUDING THE APPLICATION AND EFFECT OF U.S. FEDERAL, STATE, LOCAL AND FOREIGN TAX LAWS.

Ironwood has received a favorable private letter ruling from the IRS under the pilot program established in Revenue Procedure 2017-52 relating to the U.S. federal income tax treatment of the distribution. Consistent with the practices set forth in Revenue Procedure 2017-52, the IRS private letter ruling does not cover all of the issues that are relevant to determining whether the distribution is generally tax free for U.S. federal income tax purposes, including whether the distribution (i) satisfies the business purpose requirement in Section 1.355-2(b) of the Treasury Regulations, (ii) is used principally as a device for the distribution of the earnings and profits of Ironwood or Cyclerion or both or (iii) is part of a plan (or series of related transactions) pursuant to which one or more persons will acquire directly or indirectly stock representing a 50-percent or greater interest in Ironwood or Cyclerion, or any predecessor, within the meaning of Section 1.355-8T of the Treasury Regulations. Accordingly, it is a condition to the distribution that Ironwood receive an opinion of KPMG LLP, satisfactory to Ironwood's board of directors, confirming that the distribution, together with certain related transactions, generally is tax-free for U.S. federal income tax purposes under Sections 355 and 368(a)(1)(D) of the Code. The IRS private letter ruling is, and any opinion of KPMG LLP will be, based, among other things, on various facts and assumptions, as well as certain representations, statements and undertakings from us and Ironwood (including those relating to the past and future conduct of us and Ironwood). If any of these facts, assumptions, representations, statements or undertakings is, or becomes, inaccurate or incomplete, or if we or Ironwood breach any of our respective covenants relating to the separation, the IRS private letter ruling and any tax opinion may be invalid. Accordingly, notwithstanding receipt of the IRS private letter ruling and an opinion of KPMG LLP, the IRS could determine that the distribution and certain related transactions should be treated as taxable transactions for U.S. federal income tax purposes if it determines that any of the facts, assumptions, representations, statements or undertakings that were included in the request for the IRS private letter ruling or on which any such opinion was based are false or have been violated. In addition, an opinion of KPMG LLP represents the judgment of KPMG LLP, which is not binding on the IRS or any court. Accordingly, notwithstanding receipt by Ironwood of the tax opinion and the IRS private letter ruling, the IRS could assert that the distribution and/or certain related transactions do not qualify for tax-free treatment for U.S. federal income tax purposes. If the IRS were successful in taking this position, Ironwood, Cyclerion and Ironwood stockholders could be subject to significant U.S. federal income tax liability. See "—Material U.S. Federal Income Tax Consequences if the Distribution is Taxable" below.

Material U.S. Federal Income Tax Consequences if the Distribution, Together with Certain Related Transactions, Qualifies as a Transaction that is Generally Tax-Free Under Sections 355 and 368(a)(1)(D) of the Code

Assuming the distribution, together with certain related transactions, qualifies as a transaction that is generally tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code, the U.S. federal income tax consequences of the distribution generally are as follows:

- no gain or loss will be recognized by, and no amount will be includible in the income of Ironwood as a result of the distribution, other than with respect to any "excess loss account" or "intercompany transaction" required to be taken into account by Ironwood under U.S. Treasury regulations relating to consolidated federal income tax returns;

- no gain or loss will be recognized by (and no amount will be included in the income of) U.S. holders of Ironwood common stock, upon the receipt of Cyclerion common stock in the distribution, except with respect to any cash received in lieu of fractional shares of Cyclerion common stock (as described below);

- the aggregate tax basis of the Ironwood common stock and the Cyclerion common stock received in the distribution (including any fractional share interest in Cyclerion common stock for which cash is received) in the hands of each U.S. holder of Ironwood common stock immediately after the distribution will equal the aggregate basis of Ironwood common stock held by the U.S. holder immediately before the distribution, allocated between the Ironwood common stock and the Cyclerion common stock (including any fractional share interest in Cyclerion common stock for which cash is received) in proportion to the relative fair market value of each on the date of the distribution; and

- the holding period of the Cyclerion common stock received by each U.S. holder of Ironwood common stock in the distribution (including any fractional share interest in Cyclerion common stock for which cash is received) will generally include the holding period at the time of the distribution for the Ironwood common stock with respect to which the distribution is made.

A U.S. holder who receives cash in lieu of a fractional share of Cyclerion common stock in the distribution will be treated as having sold such fractional share for cash, and will recognize capital gain or loss in an amount equal to the difference between the amount of cash received and such U.S. holder's adjusted tax basis in such fractional share. Such gain or loss will be long-term capital gain or loss if the U.S. holder's holding period for its Ironwood common stock exceeds one year at the time of distribution.

If a U.S. holder of Ironwood common stock holds different blocks of Ironwood common stock (generally shares of Ironwood common stock acquired on different dates or at different prices), such holder should consult its tax advisor regarding the determination of the basis and holding period of shares of Cyclerion common stock received in the distribution in respect of particular blocks of Ironwood common stock.

Material U.S. Federal Income Tax Consequences if the Distribution is Taxable

As discussed above, notwithstanding receipt by Ironwood of the private letter ruling from the IRS and an opinion of KPMG LLP, the IRS could assert that the distribution does not qualify for tax-free treatment for U.S. federal income tax purposes. If the IRS were successful in taking this position, the consequences described above would not apply and Ironwood, Cyclerion and Ironwood stockholders could be subject to significant U.S. federal income tax liability. In addition, certain events that may or may not be within the control of Ironwood or Cyclerion could cause the distribution and certain related transactions to not qualify for tax-free treatment for U.S. federal income tax purposes. Depending on the circumstances, Cyclerion may be required to indemnify Ironwood for taxes (and certain related losses) resulting from the distribution and certain related transactions not qualifying as tax-free for U.S. federal income tax purposes.

If the distribution fails to qualify as a tax-free transaction for U.S. federal income tax purposes, in general, Ironwood would recognize taxable gain as if it had sold the Cyclerion common stock that was distributed by Ironwood in the distribution, in a taxable sale for its fair market value (unless Ironwood and Cyclerion jointly make an election under Section 336(e) of the Code with respect to the distribution, in which case, in general, (i) the Ironwood group would recognize taxable gain as if Cyclerion had sold all of its assets in a taxable sale in exchange for an amount equal to the fair market value of 100% of the Cyclerion common stock and the assumption of all Cyclerion's liabilities and (ii) Cyclerion would obtain a related step up in the basis of its assets), such gain may be partially or fully offset by Ironwood's net operating loss carryforward and Ironwood stockholders who receive shares of Cyclerion common stock in the distribution would be subject to tax as if they had received a taxable distribution equal to the fair market value of such shares.

Even if the distribution were otherwise to qualify as tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code, it may result in taxable gain to Ironwood under

Section 355(e) of the Code if the distribution were deemed to be part of a plan (or series of related transactions) pursuant to which one or more persons acquire, directly or indirectly, shares representing a 50% or greater interest (by vote or value) in Ironwood or Cyclerion. Under the terms of the common stock purchase agreement, the investors in the private placement will acquire up to 46% of Cyclerion's common stock on a basic shares outstanding method (which is the percentage likely to be used for purposes of this test). For purposes of this test, the private placement will generally be treated as part of such a plan or series of transactions, although some portion of the private placement may be excluded from such treatment if investors who owned shares of Ironwood common stock immediately prior to the distribution participate in the private placement to maintain their respective ownership held immediately prior to the private placement. Nonetheless, the rules governing such exclusions are complex, and there can be no assurance given as to the amount or percentage of the private placement that will be excluded from such treatment under these rules. Thus, a relatively minor additional change in the ownership of the Cyclerion common stock (or, prior to the distribution, in the Ironwood common stock) could trigger a prohibited change in control, resulting in a significant amount of taxable gain for Ironwood under Section 355 of the Code (as a result of which Cyclerion would be required to indemnify Ironwood under the tax matters agreement, as discussed below), if that additional ownership change and the portion of the private placement that must be taken into account were each considered to be part of a plan or series of related transactions that included the distribution and, in the aggregate, resulted in a 50% or greater change in ownership of Cyclerion common stock, as determined under the Code and applicable Treasury regulations. The process for determining whether a prohibited change in control has occurred under the rules is complex, inherently factual and subject to interpretation of the facts and circumstances of a particular case. If Cyclerion or Ironwood does not carefully monitor its compliance with these rules, it might inadvertently cause or permit a prohibited change in the ownership of Cyclerion or of Ironwood to occur. Furthermore, sales and/or acquisitions by the investors in the private placement (or by other persons) of Cyclerion or Ironwood common stock after completion of the distribution (or Ironwood common stock before the distribution) could potentially trigger a prohibited change of control in Cyclerion or Ironwood. For purposes of these rules, any acquisitions of Ironwood or Cyclerion shares within the period beginning two years before the distribution and ending two years after the distribution are presumed to be part of such a plan, although Ironwood or Cyclerion may be able to rebut that presumption based on the facts or circumstances or under regulatory safe harbors.

In connection with the distribution, Cyclerion and Ironwood will enter into a tax matters agreement pursuant to which Cyclerion will be responsible for certain liabilities and obligations following the distribution. In general, under the terms of the tax matters agreement, if the distribution, together with certain related transactions, were to fail to qualify as a transaction that is generally tax-free, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code, and if and to the extent that such failure results from a prohibited change of control in Ironwood under Section 355(e) of the Code or an acquisition of Ironwood stock or assets or certain actions, omissions or failures to act, by Ironwood, then Ironwood will bear any resulting taxes, interest, penalties and other costs. If and to the extent that such failure results from a prohibited change of control in Cyclerion under Section 355(e) of the Code or an acquisition of Cyclerion stock or assets or certain actions by Cyclerion, then Cyclerion will indemnify Ironwood for any resulting taxes, interest, penalties and other costs, including any reductions in Ironwood's net operating loss carryforwards or other tax assets. If such failure does not result from a prohibited change of control in Ironwood or Cyclerion under Section 355(e) of the Code and both Cyclerion and Ironwood are responsible for such failure, liability will be shared according to relative fault. If neither Cyclerion nor Ironwood is responsible for such failure, Ironwood will bear any resulting taxes, interest, penalties and other costs. For a discussion of the tax matters agreement, see "Certain Relationships and Related Person Transactions—Agreements with Ironwood—Tax Matters Agreement." The indemnification obligations of Cyclerion to Ironwood under the tax matters agreement are not expected to be limited in amount or subject to any

cap. If Cyclerion is required to pay any taxes or indemnify Ironwood and its subsidiaries and their respective officers and directors under the circumstances set forth in the tax matters agreement, Cyclerion may be subject to substantial liabilities.

Backup Withholding and Information Reporting

Payments of cash to U.S. holders of Ironwood common stock in lieu of fractional shares of Cyclerion common stock may be subject to information reporting and backup withholding (currently, at a rate of 24%), unless such U.S. holder delivers a properly completed IRS Form W-9 certifying such U.S. holder's correct taxpayer identification number and certain other information, or otherwise establishes an exemption from backup withholding. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or credited against a U.S. holder's U.S. federal income tax liability provided that the required information is timely furnished to the IRS.

THE FOREGOING DISCUSSION IS A SUMMARY OF MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE DISTRIBUTION UNDER CURRENT LAW AND IS FOR GENERAL INFORMATION ONLY. ALL HOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES OF THE DISTRIBUTION TO THEM, INCLUDING THE APPLICATION AND EFFECT OF U.S. FEDERAL, STATE, LOCAL AND FOREIGN TAX LAWS.

DESCRIPTION OF CYCLERION'S CAPITAL STOCK

General

The following description of our capital stock is intended as a summary only and is qualified in its entirety by reference to our articles of organization and bylaws that will be in effect at the closing of this separation, which have been filed as exhibits to the Form 10 of which this information statement is a part, and to the applicable provisions of the MBCA. The description of our capital stock reflects changes to our capital structure that will occur upon the closing of this separation.

Upon the closing of this separation and the filing of our articles of organization, our authorized capital stock will consist of 400,000,000 shares of our common stock and 100,000,000 shares of our preferred stock, all of which preferred stock will be undesignated.

As of December 31, 2018, we had 100 shares of common stock and no shares of preferred stock issued and outstanding and had one shareholder of record.

Common Stock

Dividend Rights

Subject to preferences that may apply to shares of preferred stock outstanding at the time, holders of outstanding shares of common stock will be entitled to receive dividends out of assets legally available at the times and in the amounts as our board of directors may from time to time determine.

Voting Rights

Each outstanding share of common stock will be entitled to one vote on all matters submitted to a vote of shareholders. Holders of shares of our common stock shall have no cumulative voting rights.

Preemptive Rights

Our common stock will not be entitled to preemptive or other similar subscription rights to purchase any of our securities.

Conversion or Redemption Rights

Our common stock will be neither convertible nor redeemable.

Liquidation Rights

Upon our liquidation, the holders of our common stock will be entitled to receive pro rata our assets which are legally available for distribution, after payment of all debts and other liabilities and subject to the prior rights of any holders of preferred stock then outstanding.

Listing

We have applied to have our common stock listed on the Nasdaq Global Market under the trading symbol "CYCN."

Preferred Stock

Our board of directors may, without further action by our shareholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the designations, powers, preferences, privileges and relative participating, optional or special rights as well as the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than

the rights of the common stock. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of our liquidation before any payment is made to the holders of shares of our common stock. Under certain circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of a majority of the total number of directors then in office, our board of directors, without shareholder approval, may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock and the market value of our common stock. Upon consummation of this separation, there will be no shares of preferred stock outstanding, and we have no present intention to issue any shares of preferred stock.

Anti-takeover Effects of Our Articles of Organization and Our Bylaws

Upon completion of the separation, our articles of organization and bylaws will contain certain provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors but which may have the effect of delaying, deferring or preventing a future takeover or change in control of us unless such takeover or change in control is approved by our board of directors.

These provisions include:

Action by written consent; special meetings of shareholders. Our articles of organization will provide that shareholder action can be taken only at an annual or special meeting of shareholders or by the unanimous written consent of all shareholders in lieu of such a meeting. Our articles of organization and the bylaws will also provide that, except as otherwise required by law, special meetings of the shareholders can only be called pursuant to a resolution adopted by a majority of our board of directors or holders of at least 40% of our then outstanding common stock. Except as described above, shareholders will not be permitted to call a special meeting or to require our board of directors to call a special meeting.

Advance notice procedures. Our bylaws will establish an advance notice procedure for shareholder proposals to be brought before an annual meeting of our shareholders, including proposed nominations of persons for election to the board of directors. Shareholders at an annual meeting will only be able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a shareholder who was a shareholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given our Secretary timely written notice, in proper form, of the shareholder's intention to bring that business before the meeting. Although the bylaws will not give our board of directors the power to approve or disapprove shareholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, the bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of us.

Proxy Access. Our bylaws will provide that a shareholder or a group of shareholders meeting certain conditions may nominate candidates for election as a director at an annual meeting of our shareholders using "proxy access" provisions. These provisions will allow one or more shareholders (up to 20, collectively), owning at least 3% of our outstanding common stock continuously for at least three years, to nominate for election to our board of directors and to be included in our proxy materials up to the greater of two individuals or 20% of our board of directors, subject to the provisions to be included in our bylaws, including the provision of timely written notice to our Secretary.

Number of directors and filling vacancies; election of directors. Our articles of organization will provide that the number of directors will be established by the board of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office. The ability of our board of directors to increase the number of directors and fill any vacancies may make it more difficult for our shareholders to change the composition of our board of directors. Our bylaws will provide that a majority of the votes properly cast for the election of a director shall effect such election unless there are more nominees than directorships, in which case a plurality standard shall apply.

Authorized but unissued shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without shareholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of a majority of our common stock by means of a proxy contest, tender offer, merger or otherwise.

Exclusive forum. Our articles of organization will require, to the fullest extent permitted by law, that derivative actions brought in the name of Cyclerion, actions against our directors, officers and employees for breach of a fiduciary duty and other similar actions may be brought only in specified courts in the Commonwealth of Massachusetts. Although we believe this provision benefits us by providing increased consistency in the application of Massachusetts law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers. See "Risk Factors—Our articles of organization designate the state and federal courts located within the Commonwealth of Massachusetts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders, which could discourage lawsuits against us and our directors and officers."

Anti-Takeover Provisions under Massachusetts Law

Provisions Regarding Business Combinations

Upon completion of this separation, we will be subject to the provisions of Chapter 110F of the MBCA. In general, Chapter 110F prohibits a publicly held Massachusetts corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, five percent or more of the corporation's voting stock.

Under Chapter 110F, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions: before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder; upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 90% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or at or after the time the stockholder became interested, the business combination was approved by our board of directors of the

corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

A Massachusetts corporation may "opt out" of these provisions with an express provision in its original articles of organization or an express provision in its articles of organization or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Provisions Regarding a Classified Board of Directors

Section 8.06(b) of the MBCA provides that, unless a company opts out of such provision, the terms of directors of a public Massachusetts company shall be staggered by dividing the directors into three groups, as nearly equal in number as possible, with only one group of directors being elected each year. We have opted out of this default requirement for a classified board of directors, and following the separation we expect that all of our directors will serve for one-year terms and will be elected annually.

Pursuant to Section 8.06(c)(2) of the MBCA, however, our board of directors may unilaterally opt back into default requirements under Section 8.06(b) of the MBCA and become a classified board of directors without the approval of our stockholders. Sections 8.06(d) and (e) of the MBCA provide that when a board of directors is so classified, (i) stockholders may remove directors only for cause, (ii) the number of directors shall be fixed only by the vote of the board of directors, (iii) vacancies and newly created directorships shall be filled solely by the affirmative vote of a majority of the remaining directors and (iv) a decrease in the number of directors will not shorten the term of any incumbent director. If our board of directors opts into this classified structure in the future, these provisions are likely to increase the time required for stockholders to change the composition of our board of directors. For example, at least two annual meetings would generally be necessary for stockholders to effect a change in a majority of the members of our board of directors. As a result, the ability of our board of directors to adopt a classified structure in the future without the approval of our stockholders could have the effect of discouraging a potential acquirer from making a tender offer for a majority of the outstanding voting interest of our capital stock or otherwise attempting to obtain control of Cyclerion.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be Computershare Trust Company, N.A.

Indemnification of Directors and Officers

Our articles of organization will provide that the liability of our directors for damages for any breach of fiduciary duty shall be limited to the fullest extent permitted by law. Our bylaws will also provide that we will indemnify, and advance funds to and reimburse expenses of, our directors and officers that have been appointed by our board of directors to the fullest extent permitted by law, and that we may indemnify, and advance funds to and reimburse expenses of, such other officers and employees as determined by our board of directors. The right of indemnification provided under our bylaws will be in addition to and not exclusive of any other rights to which any of our directors, officers or any other persons may otherwise be lawfully entitled. We also expect to enter into indemnification agreements with our directors and officers, and we will carry insurance policies insuring our directors and officers against certain liabilities that they may incur in their capacity as directors and officers.

Part 8 of the MBCA authorizes the provisions, described above, that will be contained in our articles of organization and bylaws. In addition, Sections 8.30 and 8.42 of the MBCA provide that if an

officer or director discharges his or her duties in good faith and with the care that a person in a like position would reasonably exercise under similar circumstances and in a manner the officer or director reasonably believes to be in the best interests of the corporation, he or she will not be liable for such action.

Sale of Unregistered Securities

On September 6, 2018, in connection with the formation of Cyclerion Therapeutics, Inc., we issued 100 shares of our common stock to Ironwood pursuant to Section 4(a)(2) of the Securities Act. We did not register the issuance of such shares under the Securities Act because the issuance did not constitute a public offering.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form 10 with the SEC with respect to the shares of our common stock being distributed as contemplated by this information statement. This information statement is a part of, and does not contain all of the information set forth in, the registration statement and the exhibits and schedules to the registration statement. For further information with respect to us and our common stock, please refer to the registration statement, including its exhibits and schedules. Statements made in this information statement relating to any contract or other document are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract or document. You may review a copy of the registration statement, including its exhibits and schedules, on the Internet website maintained by the SEC at www.sec.gov.

As a result of the distribution, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with the Exchange Act, we will file periodic reports, proxy statements and other information with the SEC, which will be available at www.sec.gov.

We intend to furnish holders of our common stock with annual reports containing consolidated financial statements prepared in accordance with GAAP and audited and reported on, with an opinion expressed, by an independent registered public accounting firm.

You should rely only on the information contained in this information statement or to which we have referred you. We have not authorized any person to provide you with different information or to make any representation not contained in this information statement.

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Cyclerion Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying combined balance sheets of Cyclerion Therapeutics, Inc. (the Company) as of December 31, 2018 and 2017, and the related combined statements of operations, net parent investment, and cash flows for each of the two years in the period ended December 31, 2018, and the related notes (collectively referred to as the "combined financial statements"). In our opinion, the combined financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying combined financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations, has a working capital deficiency, and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The combined financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 2018.
Boston, Massachusetts
March 4, 2019

Cyclerion Therapeutics, Inc.

Combined Balance Sheets

(In thousands)

	December 31, 2017	December 31, 2018
ASSETS		
Current assets:		
Prepaid expenses	$ 1,251	$ 867
Other current assets	8	12
Total current assets	1,259	879
Property and equipment, net	4,131	6,497
Other assets	80	25
Total assets	$ 5,470	$ 7,401
LIABILITIES AND NET PARENT INVESTMENT		
Current liabilities:		
Accounts payable	$ 1,802	$ 2,781
Accrued research and development costs	4,905	5,261
Accrued expenses and other current liabilities	7,330	9,804
Total current liabilities	14,037	17,846
Net parent investment:		
Net parent investment	(8,567)	(10,445)
Total liabilities and net parent investment	$ 5,470	$ 7,401

The accompanying notes are an integral part of these combined financial statements.

Cyclerion Therapeutics, Inc.

Combined Statements of Operations

(In thousands)

	Years Ended December 31,	
	2017	2018
Cost and expenses:		
Research and development	$ 78,803	$ 87,716
General and administrative	15,119	27,536
Total cost and expenses	93,922	115,252
Loss from operations	(93,922)	(115,252)
Net loss	$ (93,922)	$ (115,252)

The accompanying notes are an integral part of these combined financial statements.

Cyclerion Therapeutics, Inc.

Combined Statements of Net Parent Investment

(In thousands)

	Parent Company Net Investment
Ending Parent company net investment as of December 31, 2016	$ (6,761)
Net loss	(93,922)
Net transfers from Parent	82,622
Parent allocation—Share-based compensation	9,494
Ending Parent company net investment as of December 31, 2017	(8,567)
Net loss	(115,252)
Net transfer from Parent	100,941
Parent allocation—Share-based compensation	12,433
Ending Parent company net investment as of December 31, 2018	$ (10,445)

The accompanying notes are an integral part of these combined financial statements.

Cyclerion Therapeutics, Inc.

Combined Statements of Cash Flows

(In thousands)

	Year Ended December 31,	
	2017	2018
Cash flows from operating activities:		
Net loss	$ (93,922)	$ (115,252)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,745	1,528
Share-based compensation expense	9,494	12,433
Changes in assets and liabilities:		
Prepaid expenses	(1,034)	384
Other current assets	50	(4)
Other assets	(80)	55
Accounts payable	392	979
Accrued research and development costs	2,692	356
Accrued expenses and other current liabilities	(555)	2,018
Net cash used in operating activities	(81,218)	(97,503)
Cash flows from investing activities:		
Purchases of property and equipment	(1,404)	(3,438)
Net cash used in investing activities	(1,404)	(3,438)
Cash flows from financing activities:		
Transfer from Parent Company	82,622	100,941
Net cash provided by financing activities	82,622	100,941
Net increase (decrease) in cash and cash equivalents	—	—
Cash and cash equivalents, beginning of period	$ —	$ —
Cash and cash equivalents, end of period	$ —	$ —
Supplemental cash flow disclosure:		
Non-cash investing activities		
Fixed asset purchases in accounts payable and accrued expenses	$ 872	$ 455

The accompanying notes are an integral part of these combined financial statements.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements

1. Nature of Business

Nature of Operations

Cyclerion Therapeutics, Inc. ("Cyclerion" or the "Company") is a clinical-stage biopharmaceutical company harnessing the power of soluble guanylate cyclase ("sGC") pharmacology to discover, develop and commercialize breakthrough treatments for serious and orphan diseases. Cyclerion's focus is enabling the full therapeutic potential of next-generation sGC stimulators. The Company's strategy rests on a solid scientific foundation that is enabled by our people and capabilities, external collaborations, and a responsive capital allocation approach.

The Separation

In May 2018, Ironwood Pharmaceuticals, Inc. ("Ironwood" or the "Parent") announced its plans to separate its sGC business from its commercial and gastrointestinal business through a pro rata distribution of Cyclerion's common stock to stockholders of Ironwood. As a part of the separation, Ironwood intends to transfer the assets, liabilities and operations of its sGC stimulator and discovery research business to Cyclerion, pursuant to the terms of a separation agreement, to be entered into between Ironwood and Cyclerion. On the distribution date, each Ironwood stockholder will receive one share of Cyclerion's common stock for every 10 shares of Ironwood common stock held at the close of business on the record date for the distribution. Registered stockholders will receive cash in lieu of any fractional shares of Cyclerion's common stock that they would have received as a result of the application of the distribution ratio. Following the distribution, Cyclerion will operate as a separate, independent, publicly traded company. The separation is expected to be completed in the first half of 2019, subject to customary market, regulatory, and other considerations. The separation is anticipated to be tax-free to Ironwood stockholders. Accordingly, after the anticipated tax-free separation all of the related tax attributes of Ironwood will remain with Ironwood.

Basis of Presentation

The accompanying combined financial statements have been prepared on a stand-alone basis and are derived from Ironwood's consolidated financial statements and accounting records. The combined financial statements reflect the historical results of the operations, financial position and cash flows of Cyclerion, in conformity with United States generally accepted accounting principles ("U.S. GAAP").

These combined financial statements of Cyclerion reflect the assets, liabilities, and expenses directly attributable to Cyclerion, as well as allocations of certain corporate level assets, liabilities and expenses, deemed necessary to fairly present the financial position, results of operations and cash flows of Cyclerion, as discussed further below. As such, these allocations may not be indicative of the actual amounts that would have been recorded had Cyclerion operated as an independent, publicly traded company for the periods presented.

As part of Ironwood, Cyclerion was dependent upon Ironwood for all of its working capital and financing requirements, as Ironwood uses a centralized approach to cash management and financing its operations. There were no cash amounts specifically attributable to Cyclerion for the historical periods presented; therefore, there is no cash reflected in the combined financial statements. Accordingly, cash and cash equivalents, debt or related interest expense have not been allocated to Cyclerion in the combined financial statements. Financing transactions related to Cyclerion are accounted for as a component of Net Parent Investment in the combined balance sheets and as a financing activity on the accompanying combined statements of cash flows. Cyclerion's combined financial statements include an

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

1. Nature of Business (Continued)

allocation of expenses related to certain Ironwood corporate functions, including senior management, legal, human resources, finance, information technology and quality assurance. These expenses have been allocated to Cyclerion based on direct usage or benefit where identifiable, with the remainder allocated pro-rata based on project related costs, headcount or other measures. These allocations may not be indicative of the actual expense that would have been incurred had Cyclerion operated as an independent, publicly traded company for the periods presented. See Notes 9 and 11 for further description of the accounting for the separation from Ironwood. The combined balance sheets of Cyclerion include assets and liabilities that were allocated principally on a specific identification basis. As Cyclerion was not historically held by a single legal entity, Net Parent Investment is shown in lieu of stockholder's equity in the combined financial statements. Net Parent Investment represents the cumulative investment by Ironwood in Cyclerion through the dates presented, inclusive of operating results. Balances between Cyclerion and Ironwood that were not historically settled in cash are included in Net Parent Investment. All significant transactions between the Company and Ironwood have been included in the accompanying combined financial statements. Transactions with Ironwood are reflected in the accompanying combined statements of Net Parent Investment as Net Transfers from Parent, and in the accompanying combined balance sheets within Net Parent Investment.

Going Concern

The Company has experienced negative operating cash flows for all historical periods presented. The Company expects these losses to continue into the foreseeable future as the Company continues the development and clinical testing of the product candidates, olinciguat, praliciguat and IW-6463, and its discovery research programs. The Company completed a private placement financing that would fund operations through at least the next 12 months (see Note 11), but has not received the cash associated with the financing as of the date these financial statements were available to be issued. Accordingly, the Company's continued operations are dependent on its ability to raise additional capital through the sale of equity or debt securities. In the event that the Company is unable to raise sufficient funds, it would have to substantially alter, or possibly even discontinue or curtail operations, or sell assets at distressed prices. This uncertainty raises substantial doubt about the Company's ability to continue as a going concern as of December 31, 2018. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty. The Company has entered into a common stock purchase agreement, pursuant to which, upon the completion of the distribution, the Company will receive cash in exchange for shares of Cyclerion common stock (see Note 11).

2. Summary of Significant Accounting Policies

Principles of Combination

The accompanying combined financial statements include the accounts of Cyclerion. All significant intercompany transactions with Ironwood are deemed to have been paid in the period the costs were incurred. Expenses related to corporate allocations from Ironwood to the Company are considered to be effectively settled for cash in the combined financial statements at the time the transaction was recorded.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Segment Information

Operating segments are components of an enterprise for which separate financial information is available and is evaluated regularly by the Company's chief operating decision-maker in deciding how to allocate resources and in assessing performance. The Company currently operates in one reportable business segment—human therapeutics.

Use of Estimates

The preparation of combined financial statements in accordance with U.S. GAAP requires the Company's management to make estimates and judgments that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the combined financial statements, and the amounts of expenses during the reported periods. On an on-going basis, the Company's management evaluates its estimates, judgments and methodologies. Significant estimates and assumptions in the combined financial statements include those related to allocations of expenses, assets and liabilities from Ironwood's historical financials to the Company; impairment of long-lived assets; income taxes, including the valuation allowance for deferred tax assets; research and development expenses; contingencies and share-based compensation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from these estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

Cash and Cash Equivalents

The Company considers all highly liquid investment instruments with a remaining maturity when purchased of three months or less to be cash equivalents. Investments qualifying as cash equivalents may consist of money market funds, U.S. government-sponsored securities and repurchase agreements. The carrying amount of cash equivalents approximates fair value. There were no cash amounts specifically attributable to Cyclerion for the historical periods presented; therefore, there is no cash reflected in the combined financial statements.

Property and Equipment

Property and equipment are recorded at cost, and are depreciated when placed into service using the straight-line method based on their estimated useful lives as follows:

Asset Description	Estimated Useful Life (In Years)
Laboratory equipment	5
Computer and office equipment	3
Furniture and fixtures	7
Software	3

Included in property and equipment are certain costs of software obtained for internal use. Costs incurred during the preliminary project stage are expensed as incurred, while costs incurred during the application development stage are capitalized and amortized over the estimated useful life of the

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

software. The Company also capitalizes costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality. Maintenance and training costs related to software obtained for internal use are expensed as incurred. Costs for capital assets not yet placed into service have been capitalized as construction in progress, and are depreciated in accordance with the above guidelines once placed into service. Maintenance and repair costs are expensed as incurred.

Impairment of Long-Lived Assets

The Company regularly reviews the carrying amount of its long-lived assets to determine whether indicators of impairment may exist, which warrant adjustments to carrying values or estimated useful lives. If indications of impairment exist, projected future undiscounted cash flows associated with the asset are compared to the carrying amount to determine whether the asset's value is recoverable. If the carrying value of the asset exceeds such projected undiscounted cash flows, the asset will be written down to its estimated fair value. There were no significant impairments of long-lived assets for the years ended December 31, 2017 and 2018.

Income Taxes

Income taxes as presented herein include current and deferred income taxes of Ironwood allocated to the Company's standalone financial statements in a manner that is systematic, rational and consistent with the asset and liability method prescribed by the Accounting Standards Codification ("ASC") Topic 740, *Income Taxes* ("Topic 740"). Accordingly, the Company's income tax provision was prepared following the "Separate Return Method." The Separate Return Method applies Topic 740 to the standalone financial statements of each member of the consolidated group as if the group member were a separate taxpayer and a standalone enterprise. As a result, actual tax transactions included in the consolidated financial statements of Ironwood may not be included in the combined financial statements of Cyclerion. Similarly, the tax treatment of certain items reflected in the combined financial statements of Cyclerion may not be reflected in the consolidated financial statements and tax returns of Ironwood; therefore, items such as net operating losses, credit carryforwards and valuation allowances may exist in the standalone financial statements that may or may not exist in the Parent's consolidated financial statements.

Cyclerion provides for income taxes under the asset and liability method. Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates in effect when the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization.

Cyclerion accounts for uncertain tax positions recognized in the combined financial statements in accordance with the provisions of Topic 740 by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. When uncertain tax positions exist, Cyclerion recognizes the tax benefit of tax positions to the extent that the benefit will more likely than not be realized. The determination as to whether the tax benefit will more likely than not be realized is based upon the technical merits of the tax position as well as consideration of the available facts and circumstances. Cyclerion evaluates uncertain tax positions on a quarterly basis and adjusts the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. Any changes to these estimates, based on the

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

actual results obtained and/or a change in assumptions, could affect Cyclerion's income tax provision in future periods. Interest and penalty charges, if any, related to unrecognized tax benefits would be classified as a provision for income tax in Cyclerion's combined statement of operations.

In general, the taxable loss of Cyclerion was included in Ironwood's U.S. consolidated and combined income tax returns, where applicable. As such, separate income tax returns were not prepared for Cyclerion. Consequently, income taxes currently payable are deemed to have been remitted to Ironwood in the period the liability arose and income taxes currently receivable are deemed to have been received from Ironwood in the period that a refund could have been recognized by Cyclerion had Cyclerion been a separate taxpayer, if applicable.

Research and Development Costs

The Company expenses research and development costs to operations as incurred. The Company defers and capitalizes nonrefundable advance payments made by the Company for research and development activities until the related goods are received or the related services are performed.

Research and development expenses are comprised of costs incurred in performing research and development activities, which may include salary, benefits and other employee-related expenses; share-based compensation expense; laboratory supplies and other direct expenses; facilities expenses; overhead expenses; third-party contractual costs relating to nonclinical studies and clinical trial activities and related contract manufacturing expenses, development of manufacturing processes and regulatory registration of third-party manufacturing facilities; licensing fees for the Company's product candidates; and other outside expenses.

General and Administrative Expenses

The Company expenses general and administrative costs to operations as incurred. General and administrative expense consists of compensation, share-based compensation, benefits and other employee-related expenses for personnel in the Company's administrative, finance, legal, information technology, business development and human resource functions. Other costs include the legal costs of pursuing patent protection of the Company's intellectual property, general and administrative related facility costs, insurance costs and professional fees for accounting and legal services.

Patent Costs

The Company incurred and recorded as operating expense legal and other fees related to patents of approximately $0.8 million and $0.9 million for the years ended December 31, 2017 and 2018, respectively. These costs were charged to general and administrative expenses as incurred.

Subsequent Events

The Company considers events or transactions that have occurred after the balance sheet date of December 31, 2018, but prior to the filing of the financial statements with the Securities and Exchange Commission to provide additional evidence relative to certain estimates or to identify matters that require additional recognition or disclosure. Subsequent events have been evaluated through the filing of the registration statement on Form 10, of which this information statement forms a part (see Note 11).

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("FASB") or other standard setting bodies that are adopted by the Company as of the specified effective date. Except as discussed elsewhere in the notes to the combined financial statements, the Company did not adopt any new accounting pronouncements during the years ended December 31, 2017 and 2018, that had a material effect on its combined financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases* ("ASU 2016-02"), which supersedes the lease accounting requirements in ASC Topic 840, *Leases*, and most industry-specific guidance with ASC Topic 842, *Leases*. ASU 2016-02 requires the identification of arrangements that should be accounted for as leases by lessees. In general, for lease arrangements exceeding a 12-month term, these arrangements must now be recognized as assets and liabilities on the balance sheet of the lessee. Under ASU 2016-02, a right-of-use asset and lease obligation will be recorded for all leases, whether operating or financing, while the income statement will reflect lease expense for operating leases and amortization and interest expense for financing leases. The balance sheet amount recorded for existing leases at the date of adoption of ASU 2016-02 must be calculated using the applicable incremental borrowing rate at the date of adoption. ASU 2016-02 is effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted. In July 2018, the FASB issued ASU No. 2018-10, *Leases (Topic 842)* ("ASU 2018-10"), *Codification* Improvements and ASU No. 2018-11, *Leases (Topic 842)* ("ASU 2018-11"), to provide additional guidance for the adoption of Topic 842. ASU 2018-10 clarifies certain provisions, and corrects unintended applications of the guidance, such as the rate implicit in a lease, impairment of the net investment in a lease, lessee reassessment of lease classifications, lessor reassessment of lease term and purchase options, variable payments that depend on an index or rate and certain transition adjustments. The amendments in ASU 2018-11 will allow for an additional transition method, whereby at the adoption date the entity recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption, while the comparative period disclosures continue recognition under ASC Topic 840. Additionally, ASU 2018-11 includes a practical expedient for separating contract components for lessors. The Company's analysis includes, but is not limited to, reviewing existing leases, reviewing other service agreements for embedded leases, establishing policies and procedures, assessing potential disclosures and evaluating the impact of adoption on the Company's combined financial statements. The Company expects the adoption of ASU 2016-02, ASU 2018-10, and ASU 2018-11 to have a material impact on the Company's financial position and the related footnote disclosures.

In October 2016, the FASB issued ASU No. 2016-16, *Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory* ("ASU 2016-16"). ASU 2016-16 eliminates the ability to defer the tax expense related to intra-entity asset transfers other than inventory. Under the new standard, entities should recognize the income tax consequences on an intra-entity transfer of an asset other than inventory when the transfer occurs. ASU 2016-16 is effective for fiscal periods beginning after December 15, 2018. Early adoption is permitted. The Company continues to evaluate the potential impact that the adoption of ASU 2016-16 will have on the Company's financial position or results of operations. The Company does not expect the adoption of ASU 2016-16 to have a material impact on the Company's financial position or results of operations as of and for the year ended December 31, 2018.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Nonemployee Share-based Payments ("ASU 2018-07")*. ASU 2018-07 simplifies the accounting for share-based payments to nonemployees by aligning with the accounting for share-based payments to employees, with certain exceptions. Measurement of equity-classified nonemployee awards issued in exchange for goods or services used or consumed in an entity's own operations will be fixed at the grant date, which may lower the cost and reduce volatility in the income statement. Entities also may use the expected term to measure nonemployee options or elect to use the contractual term as the expected term, on an award-by-award basis. ASU 2018-07 is effective for the fiscal periods beginning after December 15, 2018. The Company is currently evaluating the potential impact that the adoption of ASU 2018-07 may have on the Company's financial position and results of operations.

In August 2018, the FASB issued ASU No. 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract* ("ASU 2018-15"). ASU 2018-15 requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance in ASC 350-40, *Intangibles—Goodwill and Other—Internal Use Software* (ASC 350-40), to determine which implementation costs to capitalize as assets or expense as incurred. The internal-use software guidance in ASC 350-40 requires that certain costs incurred during the application development stage be capitalized and other costs incurred during the preliminary project and post-implementation stages be expensed as they are incurred. A customer's accounting for the hosting component of the arrangement is not affected by this guidance. The amendments in ASU 2018-15 are effective for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is currently evaluating the potential impact that the adoption of ASU 2018-15 may have on the Company's financial position and results of operations.

No other accounting standards known by the Company to be applicable to it that have been issued by the FASB or other standard-setting bodies and that do not require adoption until a future date are expected to have a material impact on the Company's combined financial statements upon adoption.

3. Property and Equipment

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2017	2018
Laboratory equipment	$ 17,088	$ 17,753
Software	2,732	2,593
Construction in progress	137	741
Computer and office equipment	35	901
Furniture and fixtures	8	—
Gross property and equipment	20,000	21,988
Less: accumulated depreciation and amortization	(15,869)	(15,491)
Property and equipment, net	$ 4,131	$ 6,497

As of December 31, 2017 and 2018, all of the Company's property and equipment was located in Cambridge, Massachusetts.

Depreciation and amortization expense of the Company's property and equipment was approximately $1.7 million and $1.5 million for the years ended December 31, 2017 and 2018, respectively.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

4. Accrued Expenses and Other Liabilities

Accrued expenses consisted of the following (in thousands):

	December 31,	
	2017	2018
Accrued incentive compensation	$ 3,451	$ 4,889
Salaries	1,309	1,513
Accrued vacation	1,240	1,048
Professional fees	404	1,019
Workforce reduction charges	—	565
Other	926	770
	$ 7,330	$ 9,804

Other includes various accruals for goods received but not yet invoiced of approximately $0.5 million and $0.1 million for the years ended December 31, 2017 and 2018, respectively.

5. Commitment and Contingencies

Other Funding Commitments

As of December 31, 2017 and 2018, the Company has several on-going studies in various clinical trial stages. The Company's most significant clinical trial expenditures are related to contract research organizations. These contracts are generally cancellable, with notice, at the Company's option and do not have any significant cancellation penalties.

Guarantees

As permitted under Delaware law, Ironwood indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at Ironwood's request in such capacity, including any such officers who serve as an officer or director of Cyclerion prior to the separation. The maximum potential amount of future payments Ironwood could be required to make is unlimited; however, Ironwood has directors' and officers' insurance coverage that is intended to limit its exposure and enable it to recover a portion of any future amounts paid. On September 6, 2018, Cyclerion was incorporated in Massachusetts, and is subject to Massachusetts law.

The Company enters into certain agreements with other parties in the ordinary course of business that contain indemnification provisions. These typically include agreements with directors and officers, business partners, contractors, clinical sites and customers. Under these provisions, the Company generally indemnifies and holds harmless the indemnified party for losses suffered or incurred by the indemnified party as a result of the Company's activities. These indemnification provisions generally survive termination of the underlying agreements. The maximum potential amount of future payments the Company could be required to make under these indemnification provisions is unlimited. However, to date the Company has not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the estimated fair value of these obligations is minimal. Accordingly, the Company did not have any liabilities recorded for these obligations as of December 31, 2017 and 2018.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

6. Share-based Compensation Plans

Ironwood maintains certain share-based compensation programs for the benefit of its officers, directors and employees, including employees of Ironwood who will become employees of Cyclerion in connection with the separation. Specifically, during the years ended December 31, 2017 and 2018, Ironwood had two share-based compensation plans pursuant to which awards were made to employees of the Company: the Amended and Restated 2010 Employee, Director and Consultant Equity Incentive Plan ("2010 Equity Plan") and the Amended and Restated 2010 Employee Stock Purchase Plan ("2010 Purchase Plan"). Ironwood also had one share-based compensation plan under which there are outstanding awards available to employees of the Company, but from which no further awards will be made: the Amended and Restated 2005 Stock Incentive Plan ("2005 Equity Plan"). All awards granted under the programs consist of Ironwood shares of common stock. Accordingly, the amounts presented are not necessarily indicative of future share-based compensation and do not necessarily reflect the amount that Cyclerion would have issued as an independent, publicly traded company for the periods presented.

Share-based compensation expense was allocated to Cyclerion using a combined specific identification and pro-rata method based on internal project related costs and headcount that management believes are consistent and reasonable. Share-based compensation under Ironwood's incentive stock programs allocated to Cyclerion is reflected in the Company's combined statements of operations as follows for the years ended December 31, 2017 and 2018 (in thousands):

	Years Ended December 31,	
	2017	2018
Research and development	$ 6,068	$ 7,093
General and administrative	3,426	5,340
	$ 9,494	$ 12,433

Included in share-based compensation expense of approximately $9.5 million and $12.4 million, is approximately $2.2 million and $3.1 million of share-based compensation expense for employees that are directly attributable to Cyclerion for the years ended December 31, 2017 and 2018, respectively.

7. Income Taxes

The Company has historically operated as part of Ironwood and not as a stand-alone company. The combined financial statements have been derived from Ironwood's historical accounting records and are presented on a carve-out basis. The combined financial statements reflect Cyclerion's financial position, results of operations, and cash flows as if its business was operated as part of Ironwood prior to the separation, in conformity with U.S. GAAP. In general, Cyclerion has not recorded a provision for federal or state income taxes as it has had cumulative net operating losses since inception.

On December 22, 2017, the Tax Cuts and Jobs Act was enacted. This law substantially amended the Internal Revenue Code, including reducing the U.S. corporate income tax rates. Upon enactment, Cyclerion's deferred tax asset and related valuation allowance decreased by approximately $32.0 million. As the deferred tax asset is offset in full by the valuation allowance, this enacted legislation had no net impact on Cyclerion's financial position or results of operations. Cyclerion completed its accounting for

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

7. Income Taxes (Continued)

the tax effects of the Tax Cuts and Job Act as of December 31, 2018 and did not record any material adjustments to its original estimate.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations follows (in thousands):

	Year Ended December 31,	
	2017	2018
Income tax benefit using U.S. federal statutory rate	$ (31,934)	$ (24,203)
State income taxes, net of federal benefit	(4,832)	(7,301)
Tax credits	(3,230)	(4,888)
Tax windfall	(26)	(106)
Effect of U.S. tax reform	32,057	—
Non-deductible share-based compensation	69	(111)
Permanent differences	9	40
Change in valuation allowance	7,887	36,569
	$ —	$ —

Components of the Company's deferred tax assets and liabilities are as follows (in thousands):

	Year Ended December 31,	
	2017	2018
Deferred tax assets:		
Net operating loss carryforwards	$ 67,338	$ 97,049
Tax credit carryforwards	10,641	15,529
Capitalized research and development	5,121	6,169
Accruals and reserves	1,220	1,639
Share-based compensation	1,085	1,546
Total deferred tax assets	85,405	121,932
Deferred tax liabilities:		
Property and equipment	(576)	(556)
Total deferred tax liabilities	(576)	(556)
Net deferred tax assets	84,829	121,376
Valuation allowance	(84,829)	(121,376)
Net deferred tax assets	$ —	$ —

Management of Cyclerion has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Management has considered the Company's history of operating losses in addition to the expected timing of the reversal of existing temporary differences and concluded, in accordance with the applicable accounting standards, that it is more likely than not that the Company will not realize the benefit of its deferred tax assets. Accordingly, the net deferred tax assets have been fully reserved at December 31, 2017 and 2018. Management reevaluates the positive and negative evidence on a quarterly basis.

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

7. Income Taxes (Continued)

The valuation allowance increased approximately by $7.9 million during the year ended December 31, 2017 primarily due to an increase in net operating losses and tax credit carryforwards, and partially offset by the decrease in net operating losses, tax credit carryforwards and other deferred tax assets as a result of the U.S. tax rate reduction resulting from tax reform.

The valuation allowance increased approximately by $36.6 million during the year ended December 31, 2018 primarily due to an increase in net operating losses and tax credit carryforwards.

At December 31, 2017 and 2018, Cyclerion has federal net operating loss carryforwards of approximately $246.7 million and $355.5 million, respectively, to offset future federal taxable income. Federal net operating losses generated prior to January 1, 2018 begin to expire in 2033 continuing through 2037 while federal net operating losses generated after January 1, 2018 will be carried indefinitely until utilized. As of December 31, 2017 and 2018, Cyclerion had state net operating loss carryforwards of approximately $245.8 million and $354.2 million, respectively, to offset future state taxable income, which will begin to expire in 2033 and will continue to expire through 2038. Cyclerion also had tax credit carryforwards of approximately $11.3 million and $16.5 million as of December 31, 2017 and 2018, respectively, to offset future federal and state income taxes, which expire beginning in 2033 and will continue to expire through 2038. These tax attributes reflect balances determined using the separate return method and do not represent actual amounts available for use. Note that Cyclerion will not generate net operating loss carryforwards or tax credit carryforwards available for its use until its inception and operation as a standalone legal entity.

Upon audit, taxing authorities may challenge all or part of an uncertain income tax position. While Cyclerion has no history of tax audits on a standalone basis, the Parent has been audited by federal and state taxing authorities in the past. Both Cyclerion and the Parent may be subject to tax audits by federal and state taxing authorities. Accordingly, the Parent and Cyclerion regularly assesses the outcome of potential examinations in each of the taxing jurisdictions when determining the adequacy of the amount of unrecognized tax benefit recorded. Cyclerion had no unrecognized tax benefits as of December 31, 2017 and 2018. Cyclerion will recognize interest and penalties, if any, related to uncertain tax positions in income tax expense. As of December 31, 2017 and 2018, no interest or penalties have been accrued.

The statute of limitations for assessment by the Internal Revenue Service ("IRS") and state tax authorities is open for tax years ended December 31, 2014, 2015, and 2016, although carryforward attributes that were generated prior to tax year 2014 may still be adjusted upon examination by the IRS or state tax authorities if they either have been, or will be, used in a future period. There are currently no federal or state income tax audits in progress.

8. Defined Contribution Plan

Ironwood maintains a defined contribution 401(k) Savings Plan in the form of a qualified 401(k) plan for the benefit of substantially all of its employees, which includes Ironwood employees who will become Cyclerion employees. Subject to certain IRS limits, eligible employees may elect to contribute from 1% to 100% of their compensation. Ironwood contributions to the plan are at the sole discretion of Ironwood's board of directors. Currently, Ironwood provides a matching contribution of 75% of the employee's contributions, up to $6,000 annually. Compensation expense related to the 401(k) match was allocated to Cyclerion using a pro-rata method based on project related costs and headcount that management believes are consistent and reasonable. Included in compensation expense is approximately

Cyclerion Therapeutics, Inc.

Notes to the Combined Financial Statements (Continued)

8. Defined Contribution Plan (Continued)

$0.3 million and $0.4 million of expenses for employees that are directly attributable to Cyclerion for the years ended December 31, 2017 and 2018, respectively.

9. Related Party Transactions

Relationship with Ironwood

Historically, the Company has been managed and operated in the normal course of business under Ironwood. Accordingly, certain shared costs have been allocated to the Company and reflected as expenses in the Company's stand-alone combined financial statements. The expenses reflected in the combined financial statements may not be indicative of expenses that will be incurred by the Company in the future.

(a) Corporate costs

Ironwood incurs significant corporate costs for services provided to Cyclerion. These costs include expenses for information systems, accounting, other financial services (such as treasury, audit and purchasing), human resources, legal, and facilities.

A portion of these costs benefit Cyclerion and are allocated to Cyclerion using a pro-rata method based on project related costs, headcount, or other measures that management believes are consistent and reasonable.

The allocated corporate costs included in the combined statement of operations were approximately $14.2 million and $18.3 million for the years ended December 31, 2017 and 2018, respectively, and were included in general and administrative expenses for both years.

(b) Cash Management and Financing

Cyclerion participates in Ironwood's centralized cash management and financing programs. Disbursements are made through centralized accounts payable systems which are operated by Ironwood. Cash receipts are transferred to centralized accounts, also maintained by Ironwood. As cash is disbursed and received by Ironwood, it is accounted for by Cyclerion through Net Parent Investment. All obligations are financed by Ironwood and financing decisions are determined by central Ironwood treasury operations.

Other Related Party Transactions

Ironwood has and currently obtains health insurance services for its employees, including employees of Ironwood who will become employees of Cyclerion, from an insurance provider whose President and Chief Executive Officer became a member of the Ironwood's Board of Directors in April 2016. Expenses related to insurance premiums were allocated to Cyclerion using a pro-rata method based on internal project assignments and headcount, that management believes are consistent and reasonable. Insurance premiums allocated to Cyclerion amounted to approximately $1.9 million and approximately $2.1 million, is reflected in the Company's combined statements of operations as follows for the years ended December 31, 2017 and 2018, and is reflected in the Company's combined statement of operations. Accordingly, the amounts presented are not necessarily indicative of future expense and do not necessarily reflect the results that Cyclerion would have experienced as an

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Notes to the Combined Financial Statements (Continued)

9. Related Party Transactions (Continued)

independent company for the periods presented. At December 31, 2017 and 2018, the Company had no outstanding payable balance due to this related party.

10. Workforce Reduction

On June 27, 2018, Ironwood, as part of its plans to separate its sGC business from its commercial and gastrointestinal business determined the initial organizational designs for the continuing Ironwood business and Cyclerion, including employees' roles and responsibilities. As part of this process Ironwood initiated, a reduction in its headquarter-based workforce by approximately 40 employees and substantially completed the reduction in its workforce during the year ending December 31, 2018. During the year ended December 31, 2018, Ironwood recorded approximately $5.2 million in total costs related to the reduction in workforce. Expense related to workforce reduction were allocated to Cyclerion using a pro-rata method based on internal project assignments and headcount, that management believes are consistent and reasonable. Workforce reduction charges allocated to Cyclerion amounted to approximately $2.0 million recorded in research and development expense and approximately $0.3 million recorded in general and administrative expense for the year ended December 31, 2018.

The following table summarizes the accrued liabilities activity recorded in connection with the reduction in workforce for the year ended December 31, 2018 (in thousands):

	Amounts Accrued at December 31, 2017	Charges	Amount Paid	Amounts Accrued at December 31, 2018
June 2018 Reduction	—	2,029	1,464	565
Total	—	$ 2,029	$ 1,464	$ 565

11. Subsequent Events

The Company has assessed subsequent events up through March 4, 2019, the date the financial statements were available to be issued.

On January 7, 2019, in connection with the distribution, the Company entered into a common stock purchase agreement, pursuant to which, upon the completion of the distribution, the Company will receive cash in exchange for shares of Cyclerion common stock.

On February 25, 2019, Cyclerion and various investors entered into an amended and restated common stock purchase agreement pursuant to which these investors agreed to make an aggregate cash investment in Cyclerion of up to $175.0 million in exchange for shares of Cyclerion common stock at a purchase price per share determined as set forth below.

Peter Hecht, Ironwood's Chief Executive Officer and future Chief Executive Officer and board member of Cyclerion, is expected to donate a portion of his shares of Ironwood common stock to a donor advised fund that is expected to divest these shares to invest up to $34.0 million in Cyclerion as part of this financing. Mark Currie, Ironwood's Chief Scientific Officer and future President of Cyclerion and board member of Ironwood, has agreed to invest up to $4.0 million in Cyclerion as part of this financing. Dr. Currie and certain other investors may fund a portion of their investment through

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Notes to the Combined Financial Statements (Continued)

11. Subsequent Events (Continued)

sales of Ironwood common stock. Given the aforementioned director and officer affiliations with both Ironwood and Cyclerion, these investments are considered to be related party transactions.

On February 7, 2019, following further analysis of Ironwood's strategy and core business needs, and in an effort to further strengthen the operational efficiency of its organization, Ironwood commenced a reduction in its workforce by 35 employees, primarily based in the home office. Ironwood expects to substantially complete the reduction in its workforce during the first quarter of 2019. Employees expected to go to Cyclerion are excluded from the workforce reduction; however certain charges associated with the reduction will be allocated to Cyclerion. Ironwood estimates that, in connection with this reduction in its workforce, it will incur substantially all aggregate charges in the first quarter of 2019 of approximately $3.0 million to approximately $4.0 million for one-time employee severance and benefit costs, of which Cyclerion will incur approximately $0.7 million to approximately $0.8 million through corporate allocations. Of these charges, approximately 85% are expected to result in cash expenditures.

Prior to the separation, management expects to enter into certain agreements relating to the separation from the Parent, including two transition services agreements, a separation agreement, an intellectual property license agreement, a development agreement, a tax matters agreement, and an employee matters agreement. As a part of executing these agreements, the Company may assume certain assets and liabilities necessary in connection with the separation, or settle and extinguish certain existing liabilities and obligations between the Company and the Parent. An estimate of the financial effect of entering into such agreements, if any, cannot currently be made.

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Ironwood
IRONWOOD PHARMACEUTICALS, INC.
301 BINNEY ST.
CAMBRIDGE, MA 02142

You are receiving this communication because you hold shares of Class A Common Stock of Ironwood Pharmaceuticals, Inc. ("Ironwood"). Ironwood has released informational materials regarding the separation of its wholly owned subsidiary, Cyclerion Therapeutics, Inc. ("Cyclerion"), that are now available for your review. **This notice provides instructions on how to access the IRONWOOD PHARMACEUTICALS, INC. materials for informational purposes only. It is not a form for voting and presents only an overview of the Ironwood materials, which contain important information and are available, free of charge, on the Internet or by mail. We encourage you to access and closely review these materials.**

To effect the separation, Ironwood will distribute all of the shares of Cyclerion Common Stock on a pro rata basis to the holders of Ironwood Class A Common Stock. Immediately following the distribution, which will be effective as of the date and time referenced in the Information Statement that Cyclerion has prepared in connection with the separation, Cyclerion will be an independent, publicly traded company. Ironwood is not soliciting proxy or consent authority in connection with the separation.

The materials consist of the Information Statement that Cyclerion has prepared in connection with the separation. You may view the materials online at *www.materialnotice.com* and easily request a paper or e-mail copy (see reverse side).

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