

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

**Current Report
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of Report (Date of Earliest Event Reported): August 30, 2020

IONIS PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

000-19125
(Commission
File Number)

33-0336973
(I.R.S. Employer
Identification No.)

2855 Gazelle Court
Carlsbad, CA
(Address of Principal Executive Offices)

92010
(Zip Code)

Registrant's telephone number, including area code: (760) 931-9200

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$.001 Par Value	"IONS"	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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.

Item 1.01. Entry into a Material Definitive Agreement

On August 30, 2020, Ionis Pharmaceuticals, Inc., a Delaware corporation (“Ionis”), entered into an Agreement and Plan of Merger (the “Merger Agreement”), among Akcea Therapeutics, Inc., a Delaware corporation (“Akcea”), Ionis and Avalanche Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Ionis (“Purchaser”).

Pursuant to the Merger Agreement, and upon the terms and subject to the conditions thereof, Purchaser will commence a tender offer (the “Offer”), to purchase all of the issued and outstanding shares (the “Shares”) of common stock, par value \$0.001 per share, of Akcea at a price of \$18.15 per Share, net to the seller in cash, without interest (the “Offer Price”). Ionis currently owns approximately 76% of all of the issued and outstanding Shares.

The Offer will initially remain open for a minimum of 20 business days from the date of commencement of the Offer. Under certain circumstances set forth in the Merger Agreement, Purchaser may be required to extend, or may elect to extend, the Offer on one or more occasions.

The obligation of Purchaser to consummate the Offer is subject to (i) the non-waivable condition that there shall have been validly tendered and not validly withdrawn Shares that, excluding the Shares beneficially owned by Ionis, its affiliates (other than Akcea and its subsidiaries), their respective directors and executive officers and certain other affiliated person(s) set forth in an exhibit to the Merger Agreement, represent one more Share than 50% of the Shares not beneficially owned by such entities and persons outstanding at the time of the expiration of the Offer, (ii) the satisfaction or waiver of other customary conditions set forth in Annex I to the Merger Agreement, including, among others, the absence of any law or order prohibiting the consummation of the Offer or the Merger. Given the current level of ownership by Ionis in Akcea, the transaction is not anticipated to be subject to any antitrust or competition regulatory approvals.

Following the consummation of the Offer and subject to the terms and conditions of the Merger Agreement, Purchaser will merge with and into Akcea pursuant to Section 251(h) of the General Corporation Law of the State of Delaware (the “DGCL”) and without a vote or meeting of the stockholders of Akcea, with Akcea being the surviving corporation (the “Merger”).

At the effective time of the Merger, each Share (other than Shares held by Akcea, Ionis, Purchaser, any wholly owned subsidiary of Ionis or Purchaser, or by stockholders of Akcea who have perfected their statutory rights of appraisal under the DGCL) will be converted into the right to receive an amount in cash equal to the Offer Price, without any interest thereon and subject to any withholding of taxes.

In addition, at the effective time of the Merger, each option to purchase Akcea common stock with an exercise price lower than the Offer Price and each Akcea restricted stock unit, in each case whether or not vested, will be cancelled, and the holder thereof will be entitled to receive the Offer Price (less any applicable exercise price in the case of options) for each share subject to such award, pursuant to the terms set forth in the Merger Agreement. Each option to purchase Akcea common stock with an exercise price greater than or equal to the Offer Price will be cancelled with no consideration payable.

The Merger Agreement includes customary representations, warranties and covenants of Akcea, Ionis and Purchaser. Akcea has agreed to customary “no-shop” restrictions on its ability to solicit alternative acquisition proposals from third parties and engage in discussions or negotiations with third parties regarding alternative acquisition proposals, subject to certain limited exceptions.

The Merger Agreement also provides that, in connection with the termination of the Merger Agreement under specified circumstances, including termination by Akcea to accept and enter into an agreement with respect to a Superior Offer (as such term is defined in the Merger Agreement), Akcea will pay Ionis a termination fee of \$15 million.

The foregoing description of the Merger Agreement and the transactions contemplated thereby does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement, which is filed as Exhibit 2.1 hereto and which is incorporated herein by reference. The Merger Agreement has been filed to provide information to investors regarding its terms. It is not intended to provide any other factual information about Ionis, Purchaser or Akcea, their respective businesses, or the actual conduct of their respective businesses during the period prior to the consummation of the Offer, the Merger or the other transactions contemplated by the Merger Agreement. The Merger Agreement and this summary should not be relied upon as disclosure about Ionis or Akcea. None of Akcea's stockholders or any other third parties should rely on the representations, warranties and covenants or any descriptions thereof as characterizations of the actual state of facts or conditions of Ionis, Purchaser, Akcea or any of their respective subsidiaries or affiliates. The Merger Agreement contains representations and warranties that are the product of negotiations among the parties thereto and that the parties made to, and solely for the benefit of, each other as of specified dates. The assertions embodied in those representations and warranties are subject to qualifications and limitations agreed to by the respective parties and are also qualified in important part by confidential disclosure schedules delivered in connection with the Merger Agreement. The representations and warranties may have been made for the purpose of allocating contractual risk between the parties to the agreements instead of establishing these matters as facts, and may be subject to standards of materiality applicable to the contracting parties that differ from those applicable to investors.

Item 8.01. Other Events.

On August 31, 2020, Ionis and Akcea issued a joint press release announcing their entry into the Merger Agreement, a copy of which is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
2.1*	<u>Agreement and Plan of Merger, dated as of August 30, 2020, among Akcea Therapeutics, Inc., Ionis Pharmaceuticals, Inc. and Avalanche Merger Sub, Inc.</u>
99.1	<u>Joint Press Release, dated August 31, 2020.</u>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

* Schedules omitted pursuant to Item 601(b)(2) of Regulation S-K. Ionis agrees to furnish supplementally a copy of any omitted schedule to the SEC upon request.

Notice to Investors and Security Holders

The tender offer referred to in this Current Report has not yet commenced. The description contained in this Current Report is neither an offer to purchase nor a solicitation of an offer to sell any securities, nor is it a substitute for the tender offer materials that Ionis will file with the Securities and Exchange Commission (the "SEC"). The solicitation and offer to buy shares of Akcea common stock will only be made pursuant to an offer to purchase and related tender offer materials. At the time the tender offer is commenced, Ionis will file a tender offer statement on Schedule TO and thereafter Akcea will file a solicitation/recommendation statement on Schedule 14D-9 with the SEC with respect to the Offer. THE TENDER OFFER MATERIALS (INCLUDING AN OFFER TO PURCHASE, A RELATED LETTER OF TRANSMITTAL AND CERTAIN OTHER OFFER DOCUMENTS) AND THE SOLICITATION/RECOMMENDATION STATEMENT ON SCHEDULE 14D-9 WILL CONTAIN IMPORTANT INFORMATION. AKCEA SHAREHOLDERS ARE URGED TO READ THESE DOCUMENTS CAREFULLY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION THAT HOLDERS SHOULD CONSIDER BEFORE MAKING ANY DECISION REGARDING TENDERING THEIR SHARES. The offer to purchase, the related letter of transmittal and the solicitation/recommendation statement will be made available free of charge at the SEC's website at www.sec.gov. Additional copies may be obtained for free by contacting Ionis or Akcea, as applicable. Copies of the documents filed with the SEC by Ionis will be available free of charge on Ionis' internet website at <https://ir.ionispharma.com/financial-information/sec-filings> or by contacting Ionis' investor relations contact at (760) 603-2681. Copies of the documents filed with the SEC by Akcea will be available free of charge on Akcea's internet website at <https://ir.akceatx.com/> or by contacting Akcea's investor relations contact at (617) 841-9535.

In addition to the offer to purchase, the related letter of transmittal and certain other tender offer documents to be filed by Ionis, as well as the solicitation/recommendation statement to be filed by Akcea, Ionis and Akcea will also file quarterly and current reports with the SEC. Ionis' and Akcea's filings with the SEC are available to the public from commercial document-retrieval services and at the website maintained by the SEC at <http://www.sec.gov>.

Forward-Looking Statements

Ionis Pharmaceuticals, Inc. assumes no obligation to update forward-looking statements contained in this Current Report as a result of new information or future events or developments except as required by law. This Current Report includes forward-looking statements regarding the business of Akcea Therapeutics, Inc. and Ionis Pharmaceuticals, Inc., the therapeutic and commercial potential of TEGSEDI® (inotersen) and WAYLIVRA® (volanesorsen) and the proposed acquisition of Akcea that are subject to risks and uncertainties that could cause actual results to differ materially from those expressly or implied by such statements. Any statement describing Akcea's or Ionis' goals, expectations, financial or other projections, intentions or beliefs, including the commercial potential of TEGSEDI and WAYLIVRA or other of Akcea's or Ionis' drugs in development is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. Risks and uncertainties also include, among other things, risks related to the satisfaction or waiver of the conditions to closing the proposed acquisition in the anticipated timeframe or at all, including uncertainties as to how many of Akcea's stockholders will tender their Shares in the tender offer and the possibility that the acquisition does not close; disruption from the transaction making it more difficult to maintain business and operational relationships; risks that anticipated synergies will not be realized or may be delayed; and the magnitude of transaction costs. Akcea's and Ionis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Akcea's and Ionis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Akcea and Ionis. In particular, we caution you that our forward-looking statements are subject to the ongoing and developing circumstances related to the COVID-19 pandemic, which may have a material adverse effect on our business, operations and future financial results. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Akcea's and Ionis' programs are described in additional detail in Akcea's and Ionis' quarterly reports on Form 10-Q and annual reports on Form 10-K, which are on file with the SEC. Copies of these and other documents are available from each company.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

IONIS PHARMACEUTICALS, INC.

By: /s/ Patrick R. O'Neil

Name: Patrick R. O'Neil

Title: Executive Vice President, Legal, General Counsel
and Chief Compliance Officer

Dated: August 31, 2020

AGREEMENT AND PLAN OF MERGER

among

AKCEA THERAPEUTICS, INC.,

a Delaware corporation;

IONIS PHARMACEUTICALS, INC.,

a Delaware corporation;

and

AVALANCHE MERGER SUB, INC.,

a Delaware corporation

Dated as of August 30, 2020

Table of Contents

SECTION 1 THE OFFER	2
1.1 The Offer	2
1.2 Company Actions	5
SECTION 2 MERGER TRANSACTION	6
2.1 Merger of Purchaser into the Company	6
2.2 Effect of the Merger	6
2.3 Closing; Effective Time	7
2.4 Certificate of Incorporation and Bylaws; Directors and Officers	7
2.5 Conversion of Shares	8
2.6 Surrender of Certificates; Stock Transfer Books	8
2.7 Dissenters' Rights	11
2.8 Treatment of Company Options and Company RSUs	11
2.9 FIRPTA Certificate	12
2.10 Further Action	12
SECTION 3 REPRESENTATIONS AND WARRANTIES OF THE COMPANY	12
3.1 Due Organization; Subsidiaries, Etc.	13
3.2 Certificate of Incorporation and Bylaws	13
3.3 Capitalization, Etc.	14
3.4 SEC Filings; Financial Statements	15
3.5 Absence of Changes; No Material Adverse Effect	17
3.6 Title to Assets	17
3.7 Real Property	17
3.8 Intellectual Property; Privacy	18
3.9 Contracts	19
3.10 Undisclosed Liabilities	21
3.11 Compliance with Legal Requirements	21
3.12 Regulatory Matters	21
3.13 Certain Business Practices	24
3.14 Governmental Authorizations	24
3.15 Tax Matters	24
3.16 Employee Matters; Benefit Plans	26
3.17 Environmental Matters	28
3.18 Insurance	28
3.19 Legal Proceedings; Orders	29
3.20 Authority; Binding Nature of Agreement; No Vote	29
3.21 Takeover Laws	30
3.22 Non-Contravention; Consents	30
3.23 Opinion of Financial Advisors	31
3.24 Brokers and Other Advisors	31

SECTION 4 REPRESENTATIONS AND WARRANTIES OF PARENT AND PURCHASER	31
4.1 Due Organization	31
4.2 Purchaser	32
4.3 Authority; Binding Nature of Agreement	32
4.4 Non-Contravention; Consents	32
4.5 Disclosure	33
4.6 Absence of Litigation	33
4.7 Funds	33
4.8 Acknowledgment by Parent and Purchaser	33
4.9 Brokers and Other Advisors	34
4.10 Ownership of Shares	34
SECTION 5 CERTAIN COVENANTS OF THE COMPANY	34
5.1 Access and Investigation	34
5.2 Operation of the Acquired Corporations' Business	35
5.3 No Solicitation	38
5.4 Notice of Certain Events	40
SECTION 6 ADDITIONAL COVENANTS OF THE PARTIES	40
6.1 Company Board Recommendation and Special Committee Recommendation	40
6.2 Filings, Consents and Approvals	42
6.3 Employee Benefits	42
6.4 ESPP	44
6.5 Indemnification of Officers and Directors	45
6.6 Stockholder Litigation	47
6.7 Additional Agreements	47
6.8 Disclosure	47
6.9 Takeover Laws	48
6.10 Section 16 Matters	48
6.11 Rule 14d-10 Matters	48
6.12 Stock Exchange Delisting; Deregistration	48
6.13 Notice of Certain Regulatory Events; Cooperation	48
6.14 Acquisition of Additional Shares	49
SECTION 7 CONDITIONS PRECEDENT TO THE MERGER	49
7.1 No Restraints	49
7.2 Consummation of Offer	50
SECTION 8 TERMINATION	50
8.1 Termination	50
8.2 Effect of Termination	52
8.3 Expenses; Termination Fee	52

9.1	Amendment	53
9.2	Waiver	54
9.3	No Survival of Representations and Warranties	54
9.4	Entire Agreement; Counterparts	54
9.5	Applicable Legal Requirements; Jurisdiction; Specific Performance; Remedies	54
9.6	Assignability	55
9.7	No Third-Party Beneficiaries	56
9.8	Transfer Taxes	56
9.9	Notices	56
9.10	Severability	57
9.11	Obligation of Parent	57
9.12	Construction	58

Exhibits

Exhibit A Certain Definitions
Exhibit B Certain Affiliated Persons

Annexes

Annex I Conditions to the Offer
Annex II Form of Certificate of Incorporation of the Surviving Corporation

AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (this "Agreement") is entered into as of August 30, 2020, among Akcea Therapeutics, Inc., a Delaware corporation (the "Company"); Ionis Pharmaceuticals, Inc., a Delaware corporation ("Parent"); and Avalanche Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Parent ("Purchaser"). Certain capitalized terms used in this Agreement are defined in Exhibit A.

RECITALS

The Company is a biopharmaceutical company dedicated to developing antisense medicines to treat patients with serious and rare diseases.

As of the date of this Agreement, Parent beneficially owns 77,094,682 shares of the Company Common Stock, representing approximately 76% of the total issued and outstanding shares of Company Common Stock.

The Company has established the Special Committee and delegated to it authority to review, evaluate, negotiate, recommend or not recommend a proposal by Parent with respect to a business combination transaction with Parent.

The Special Committee has recommended to the Board of Directors the execution, delivery and performance by the Company of this Agreement.

The Board of Directors, acting on the recommendation of the Special Committee, has approved the execution, delivery and performance by the Company of this Agreement and the acquisition of the Company by Parent on the terms and subject to the conditions set forth in this Agreement and resolved to recommend that the stockholders of the Company (other than Parent and its Affiliates) tender their Shares to Purchaser pursuant to the Offer.

The boards of directors of Parent and Purchaser have each approved this Agreement and declared it advisable for Parent and Purchaser, respectively, to enter into this Agreement.

Parent, Purchaser and the Company acknowledge and agree that, subject to the conditions set forth herein, the Merger shall be effected pursuant to Section 251(h) of the DGCL and shall, subject to the satisfaction of the conditions set forth in this Agreement, be consummated as soon as practicable following the consummation of the Offer.

The Parties agree as follows:

SECTION 1

THE OFFER

1.1 The Offer.

(a) **Commencement of the Offer.** Provided that this Agreement shall not have been terminated in accordance with Section 8, on the tenth (10th) business day after the date of this Agreement (subject to the Company having timely provided any information required to be provided by it pursuant to Sections 1.1(e) and 1.2(b)), Purchaser shall (and Parent shall cause Purchaser to) commence (within the meaning of Rule 14d-2 under the Exchange Act) a tender offer (as it may be amended from time to time as permitted under this Agreement, the “Offer”) to acquire all of the outstanding shares of Company Common Stock (the “Shares”) (other than any Shares held immediately prior to the Offer Acceptance Time by (i) the Company (or held in the Company’s treasury) or (ii) Parent, Purchaser or any other direct or indirect wholly owned Subsidiary of Parent) for \$18.15 per Share, net to the seller in cash, without interest (such amount, the “Offer Price”), and subject to any withholding of Taxes in accordance with Section 2.6(e).

(b) **Terms and Conditions of the Offer.** The obligations of Purchaser to, and of Parent to cause Purchaser to, accept for payment, and pay for, any Shares validly tendered pursuant to the Offer are subject only to the terms and conditions set forth in this Agreement, including the satisfaction of the Minimum Condition, the Termination Condition and the other conditions set forth in Annex I (collectively, the “Offer Conditions”). The Offer shall be made by means of an offer to purchase (the “Offer to Purchase”) that contains the terms set forth in this Agreement, the Minimum Condition, the Termination Condition and the other Offer Conditions. Purchaser expressly reserves the right to (i) increase the Offer Price, (ii) waive any Offer Condition and (iii) make any other changes in the terms and conditions of the Offer, so long as such changes are consistent with the terms of this Agreement; *provided, however*, notwithstanding anything to the contrary contained in this Agreement, (1) Parent and Purchaser shall not amend, modify or waive the Minimum Condition and (2) without the prior written consent of the Company, Parent and Purchaser shall not (A) decrease the Offer Price, (B) change the form of consideration payable in the Offer, (C) decrease the maximum number of Shares sought to be purchased in the Offer, (D) impose conditions or requirements to the Offer in addition to the Offer Conditions, (E) amend, modify or waive the Termination Condition or the condition set forth in clause (f) of Annex I, (F) otherwise amend or modify any of the other terms of the Offer in a manner that adversely affects, or would reasonably be expected to adversely affect, any holder of Shares (other than Parent and its Affiliates) in its capacity as such, (G) terminate the Offer or accelerate, extend or otherwise change the Expiration Date, in each case, except as provided in Section 1.1(c) or 1.1(d) or (H) provide any “subsequent offering period” (or any extension thereof) within the meaning of Rule 14d-11 promulgated under the Exchange Act. The Offer may not be withdrawn prior to the Expiration Date (or any rescheduled Expiration Date) of the Offer, unless this Agreement is terminated in accordance with Section 8.

(c) **Expiration and Extension of the Offer.** The Offer shall initially be scheduled to expire at one minute after 11:59 p.m. Eastern Time on the date that is twenty (20) business days (determined as set forth in Rule 14d-1(g)(3) and Rule 14e-1(a) under the Exchange

Act) from the Offer Commencement Date (unless otherwise agreed to in writing by Parent and the Company) (the “Initial Expiration Date”, and such date or such subsequent date to which the Initial Expiration Date of the Offer is extended in accordance with the terms of this Agreement, the “Expiration Date”). Notwithstanding anything to the contrary contained in this Agreement, but subject to the Parties’ respective termination rights under Section 8: (i) if, as of the then-scheduled Expiration Date, any Offer Condition is not satisfied and has not been waived by Purchaser or Parent, to the extent waivable by Purchaser or Parent, Parent and Purchaser may, in their sole discretion (and without the consent of the Company or any other Person), extend the Offer on one or more occasions, for an additional period of up to ten (10) business days per extension, to permit such Offer Condition to be satisfied; (ii) Purchaser shall, and Parent shall cause Purchaser to, extend the Offer from time to time for any period required by any Legal Requirement, any interpretation or position of the SEC, the staff thereof or Nasdaq applicable to the Offer; and (iii) if, as of the then-scheduled Expiration Date, any Offer Condition is not satisfied and has not been waived, at the request of the Company, Purchaser shall, and Parent shall cause Purchaser to, extend the Offer on one or more occasions for an additional period of up to ten (10) business days per extension, to permit such Offer Condition to be satisfied; *provided, however*, that in no event shall Parent or Purchaser: (1) be required to extend the Offer beyond the earlier to occur of (x) the valid termination of this Agreement in compliance with Section 8 and (y) the End Date (such earlier occurrence, the “Extension Deadline”), (2) be permitted to extend the Offer beyond the Extension Deadline without the prior written consent of the Company or (3) be required to extend the Offer on more than two (2) occasions in consecutive periods of ten (10) business days each if, as of the applicable Expiration Date, (A) none of the Offer Documents, the Parent Schedule 13E-3, the Schedule 14D-9 or the Company Schedule 13E-3 is still being reviewed or commented on by the SEC and (B) all of the Offer Conditions are satisfied or have been waived other than the Minimum Condition and conditions which by their nature are to be satisfied at the expiration of the Offer. Purchaser shall not terminate the Offer, or permit the Offer to expire, prior to the Extension Deadline without the prior written consent of the Company.

(d) **Termination of Offer.** Nothing in this Section 1.1 shall be deemed to impair, limit or otherwise restrict in any manner the right of the Company, Parent or Purchaser to terminate this Agreement pursuant to Section 8. If this Agreement is validly terminated pursuant to Section 8, Purchaser shall (and Parent shall cause Purchaser to) immediately, irrevocably and unconditionally terminate the Offer and shall not acquire any Shares pursuant to the Offer. If the Offer is terminated or withdrawn by Purchaser in accordance with the terms of this Agreement, Purchaser shall immediately return, and shall cause any depository acting on behalf of Purchaser to return, in accordance with applicable Legal Requirements, all tendered Shares to the registered holders thereof.

(e) **Offer Documents and Parent Schedule 13E-3.** As promptly as practicable on the Offer Commencement Date, Parent and Purchaser shall (i) file with the SEC a tender offer statement on Schedule TO with respect to the Offer (together with any exhibits, amendments or supplements thereto, the “Offer Documents”) and a Rule 13E-3 Transaction Statement on Schedule 13E-3 (together with any exhibits, amendments or supplements thereto, the “Schedule 13E-3”) and such Schedule 13E-3 filed by Parent and Purchaser, the “Parent Schedule 13E-3”) that will contain or incorporate by reference the Offer to Purchase and form of the related letter of transmittal and (ii) cause the Offer to Purchase and the Parent Schedule

13E-3 and related documents to be disseminated to holders of Shares as and to the extent required by applicable Legal Requirements. Parent and Purchaser agree that they shall cause the Offer Documents and the Parent Schedule 13E-3 filed by either Parent or Purchaser with the SEC (x) to comply in all material respects with the Exchange Act and other applicable Legal Requirements and (y) to not contain any untrue statement of a material fact or omit to state any 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; *provided, however*, that no covenant is made by Parent or Purchaser with respect to information supplied by or on behalf of the Company for inclusion or incorporation by reference in the Offer Documents or the Parent Schedule 13E-3. Each of Parent, Purchaser and the Company agrees to respond promptly to any comments (including oral comments) of the SEC or its staff and to promptly correct any information provided by it for use in the Offer Documents or the Parent Schedule 13E-3 if and to the extent that such information shall have become false or misleading in any material respect, and Parent and Purchaser further agree to take all steps necessary to cause the Offer Documents and the Parent Schedule 13E-3 as so corrected to be filed with the SEC and to be disseminated to holders of Shares, in each case as and to the extent required by applicable Legal Requirements. The Company consents to the inclusion of the Company Board Recommendation and the Special Committee Recommendation in the Offer Documents and the Parent Schedule 13E-3. The Company shall promptly furnish or otherwise make available to Parent and Purchaser or Parent's legal counsel all information concerning the Company and the Company's stockholders that may be required in connection with any action contemplated by this Section 1.1(e). The Company and its counsel shall be given reasonable opportunity to review and comment on the Offer Documents and the Parent Schedule 13E-3 (including any response to any comments (including oral comments) of the SEC or its staff with respect thereto) prior to the filing thereof with the SEC, and Parent and Purchaser shall give reasonable and good faith consideration to any such comments made by the Company or its counsel. Parent and Purchaser agree to provide the Company and its counsel with any comments (including oral comments) Parent, Purchaser or their counsel may receive from the SEC or its staff with respect to the Offer Documents or the Parent Schedule 13E-3 promptly after receipt of those comments (including oral comments).

(f) **Funds.** Without limiting the generality of Section 9.11, Parent shall cause to be provided to Purchaser, on a timely basis, all of the funds necessary to purchase all Shares that Purchaser becomes obligated to purchase pursuant to the Offer, and shall cause Purchaser to perform, on a timely basis, all of its obligations under this Agreement.

(g) **Adjustments.** If, between the date of this Agreement and the Offer Acceptance Time, the outstanding Shares are changed into a different number or class of shares by reason of any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction, then the Offer Price shall be appropriately adjusted.

(h) **Acceptance.** Subject only to the satisfaction or, to the extent waivable by Purchaser or Parent, waiver by Purchaser or Parent of each of the Offer Conditions, Purchaser shall (and Parent shall cause Purchaser to) (i) promptly after the Expiration Date accept for payment all Shares tendered (and not validly withdrawn) pursuant to the Offer (the time of such acceptance, the "Offer Acceptance Time") and (ii) promptly after the Offer Acceptance Time pay for such Shares.

(i) **Transfer Taxes.** If the payment of any of the Offer Price is to be made to a Person other than the Person in whose name the tendered Shares are registered on the stockholder list described in Section 1.2(b) as of the Stockholder List Date, it shall be a condition of payment that the Shares so tendered shall be endorsed properly or otherwise be in proper form for transfer and that the Person requesting such payment shall have paid all transfer and other similar Taxes required by reason of the payment of the Offer Price to a Person other than the registered holder of the Shares tendered, or shall have established to the satisfaction of Parent that such transfer or other Taxes either have been paid or are not applicable. None of Parent, Purchaser or the Surviving Corporation shall have any liability for the transfer and other similar Taxes described in this Section 1.1(i) under any circumstance.

1.2 Company Actions.

(a) **Schedule 14D-9 and Company Schedule 13E-3.** As promptly as practicable on the Offer Commencement Date, following the filing of the Offer Documents, the Company shall (i) file with the SEC a Tender Offer Solicitation/Recommendation Statement on Schedule 14D-9 (together with any exhibits, amendments or supplements thereto, the "Schedule 14D-9") and a Schedule 13E-3 (such Schedule 13E-3 filed by the Company, the "Company Schedule 13E-3") that, subject to Section 6.1(b), shall reflect the Company Board Recommendation and the Special Committee Recommendation and include the notice and other information required by Section 262(d)(2) of the DGCL and (ii) cause the Schedule 14D-9 and the Company Schedule 13E-3 and related documents to be disseminated to holders of Shares as and to the extent required by applicable Legal Requirements, including by setting the Stockholder List Date as the record date for purposes of receiving the notice required by Section 262(d)(2) of the DGCL. The Company agrees that it shall cause the Schedule 14D-9 and the Company Schedule 13E-3 (x) to comply in all material respects with the Exchange Act and other applicable Legal Requirements and (y) to not contain any untrue statement of a material fact or omit to state any 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; *provided, however*, that no covenant is made by the Company with respect to information supplied by or on behalf of Parent or Purchaser for inclusion or incorporation by reference in the Schedule 14D-9 or the Company Schedule 13E-3. Each of Parent, Purchaser and the Company agrees to respond promptly to any comments (including oral comments) of the SEC or its staff and to promptly correct any information provided by it for use in the Schedule 14D-9 or the Company Schedule 13E-3 if and to the extent that such information shall have become false or misleading in any material respect, and the Company further agrees to take all steps necessary to cause the Schedule 14D-9 as so corrected to be filed with the SEC and to be disseminated to holders of Shares, in each case as and to the extent required by applicable Legal Requirements. Parent and Purchaser shall promptly furnish or otherwise make available to the Company or the Company's legal counsel all information concerning Parent or Purchaser that may be required in connection with any action contemplated by this Section 1.2(a). Except to the extent an amendment relates to an Acquisition Proposal, a Company Adverse Change Recommendation or a "stop, look and listen" or similar communication of the type contemplated in Rule 14d-9(f) under the Exchange Act, Parent and its counsel shall be given reasonable opportunity to review and comment on the Schedule 14D-9 and the Company Schedule 13E-3 (including any response to any comments (including oral comments) of the SEC or its staff with respect thereto, except to the extent such comments relate to the portion of an amendment related to an Acquisition

Proposal, a Company Adverse Change Recommendation or a “stop, look and listen” or similar communication of the type contemplated in Rule 14d-9(f) under the Exchange Act) prior to the filing thereof with the SEC, and the Company shall give reasonable and good faith consideration to any such comments made by Parent or its counsel. The Company agrees to provide Parent and its counsel with any comments (including oral comments) the Company or its counsel may receive from the SEC or its staff with respect to the Schedule 14D-9 or the Company Schedule 13E-3 promptly after receipt of those comments (including oral comments).

(b) **Stockholder Lists.** The Company shall promptly furnish Parent with a list of its stockholders, mailing labels and any available listing or computer file containing the names and addresses of all record holders of Shares and lists of securities positions of Shares held in stock depositories, in each case accurate and complete as of the most recent practicable date, and shall provide to Parent such additional information (including updated lists of stockholders, mailing labels and lists of securities positions) and such other assistance as Parent may reasonably request in connection with the Offer and the Merger (the date of the list used to determine the Persons to whom the Offer Documents and the Schedule 14D-9 are first disseminated, which date shall not be more than ten (10) business days prior to the date the Offer Documents and the Schedule 14D-9 are first disseminated, the “Stockholder List Date”). Except for such steps as are necessary to disseminate the Offer Documents, the Parent Schedule 13E-3 and any other documents necessary to consummate the Transactions, Parent and Purchaser and their agents shall hold in confidence the information contained in any such labels, listings and files, shall use such information only in connection with the Offer and the Merger and, if this Agreement shall be terminated, shall, upon request by the Company, deliver, and shall use their reasonable best efforts to cause their agents to deliver, to the Company (or destroy) all copies and any extracts or summaries from such information then in their possession or control, and, if requested by the Company, promptly certify to the Company in writing that all such material has been returned or destroyed.

(c) **Share Registry.** The Company shall register (and shall instruct its transfer agent to register) the transfer of the Shares accepted for payment by Purchaser effective immediately after the Offer Acceptance Time.

SECTION 2

MERGER TRANSACTION

2.1 Merger of Purchaser into the Company. Upon the terms and subject to the conditions set forth in this Agreement and in accordance with Section 251(h) of the DGCL, at the Effective Time, the Company and Parent shall consummate a merger, whereby Purchaser shall be merged with and into the Company (the “Merger”), the separate existence of Purchaser shall cease, and the Company will continue as the surviving corporation in the Merger (the “Surviving Corporation”).

2.2 Effect of the Merger. The Merger shall have the effects set forth in this Agreement and in the applicable provisions of the DGCL. Without limiting the generality of the foregoing, at the Effective Time, all of the property, rights, privileges, immunities, powers and franchises of the Company and Purchaser shall vest in the Surviving Corporation, and all of the

debts, liabilities and duties of the Company and Purchaser shall become the debts, liabilities and duties of the Surviving Corporation.

2.3 Closing; Effective Time.

(a) Unless this Agreement shall have been terminated pursuant to Section 8, and unless otherwise mutually agreed in writing between the Company, Parent and Purchaser, the consummation of the Merger (the “Closing”) shall take place at the offices of Skadden, Arps, Slate, Meagher & Flom LLP, 500 Boylston Street, Boston, Massachusetts 02116, as soon as practicable following the Offer Acceptance Time except if the conditions set forth in Section 7.1 shall not be satisfied or, to the extent permissible by applicable Legal Requirements, waived as of such date, in which case on the first business day on which all conditions set forth in Section 7.1 are satisfied or, to the extent permissible by applicable Legal Requirements, waived, unless another date or place is agreed to in writing by the Company and Parent. The date on which the Closing occurs is referred to in this Agreement as the “Closing Date”.

(b) Subject to the provisions of this Agreement, as soon as practicable on the Closing Date, the Company and Purchaser shall file or cause to be filed a certificate of merger with the Secretary of State of the State of Delaware with respect to the Merger, in such form as required by, and executed and acknowledged in accordance with, the relevant provisions of the DGCL, and the Parties shall take all such further actions as may be required by applicable Legal Requirements to make the Merger effective. The Merger shall become effective upon the date and time of the filing of that certificate of merger with the Secretary of State of the State of Delaware or such later date and time as is agreed upon in writing by the Parties and specified in the certificate of merger (such date and time, the “Effective Time”).

2.4 Certificate of Incorporation and Bylaws; Directors and Officers.

(a) As of the Effective Time, the certificate of incorporation of the Company shall by virtue of the Merger and without any further action, be amended and restated to read in its entirety as set forth on Annex II and, as so amended and restated, shall be the certificate of incorporation of the Surviving Corporation until thereafter changed or amended as provided therein or by applicable Legal Requirements, subject to Section 6.5(a).

(b) As of the Effective Time, the bylaws of the Surviving Corporation shall be amended and restated to conform to the bylaws of Purchaser as in effect immediately prior to the Effective Time, until thereafter changed or amended as provided therein or by applicable Legal Requirements, subject to Section 6.5(a), except that references to the name of Purchaser shall be replaced by references to the name of the Surviving Corporation.

(c) As of the Effective Time, the directors and officers of the Surviving Corporation shall be the respective individuals who served as the directors and officers of Purchaser as of immediately prior to the Effective Time, until their respective successors are duly elected and qualified, or their earlier death, resignation or removal.

2.5 Conversion of Shares.

(a) At the Effective Time, by virtue of the Merger and without any further action on the part of Parent, Purchaser, the Company or any stockholder of the Company:

(i) any Shares held immediately prior to the Effective Time by the Company (or held in the Company's treasury) shall be cancelled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor;

(ii) any Shares held immediately prior to the Effective Time by Parent, Purchaser or any other direct or indirect wholly owned Subsidiary of Parent shall be cancelled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor;

(iii) except as provided in clauses (i) and (ii) above and subject to Section 2.5(b), each Share outstanding immediately prior to the Effective Time (other than any Dissenting Shares, which shall have only those rights set forth in Section 2.7), shall be converted into the right to receive the Offer Price, without any interest thereon (such amount, the "Merger Consideration"), and subject to any withholding of Taxes in accordance with Section 2.6(e); and

(iv) each share of the common stock, \$0.001 par value per share, of Purchaser then outstanding shall be converted into one share of common stock of the Surviving Corporation. From and after the Effective Time, all Shares shall no longer be outstanding and shall automatically be cancelled and shall cease to exist, and each applicable holder of such Shares shall cease to have any rights with respect thereto, except (1) the right to receive the Merger Consideration therefor upon the surrender of such shares of Company Common Stock in accordance with Section 2.6, or (2) any rights set forth in Section 2.7 in respect of Dissenting Shares.

(b) If, between the date of this Agreement and the Effective Time, the outstanding Shares are changed into a different number or class of shares by reason of any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction, then the Merger Consideration shall be appropriately adjusted.

2.6 Surrender of Certificates; Stock Transfer Books.

(a) Prior to the Offer Acceptance Time, Parent shall designate a bank or trust company reasonably acceptable to the Company to act as agent (the "Depository Agent") for the holders of Shares to receive the aggregate Offer Price to which holders of such Shares shall become entitled pursuant to Section 1.1(b) and to act as agent (the "Paying Agent") for the holders of Shares to receive the aggregate Merger Consideration to which holders of such Shares shall become entitled pursuant to Section 2.5. Prior to the Offer Acceptance Time, Parent shall deposit, or shall cause to be deposited, with the Depository Agent cash sufficient to make the payment of the aggregate Offer Price payable pursuant to Section 1.1(h). On or prior to the Closing Date, Parent shall deposit, or shall cause to be deposited, with the Paying Agent cash sufficient to pay the aggregate Merger Consideration payable pursuant to Section 2.5 (together with the amount deposited pursuant the immediately preceding sentence, the "Payment Fund").

The Payment Fund shall not be used for any purpose other than to pay the aggregate Offer Price in the Offer and the aggregate Merger Consideration in the Merger. The Payment Fund shall be invested by the Paying Agent as directed by the Surviving Corporation; *provided* that such investments shall be (w) in obligations of or guaranteed by the United States of America, (x) in commercial paper obligations rated A-1 or P-1 or better by Moody's Investors Service, Inc. or Standard & Poor's Corporation, respectively, (y) in certificates of deposit, bank repurchase agreements or banker's acceptances of commercial banks with capital exceeding \$1 billion, or (z) in money market funds having a rating in the highest investment category granted by a recognized credit rating agency at the time of acquisition or a combination of the foregoing and, in any such case, no such instrument shall have a maturity exceeding three (3) months; *provided, further*, that no gain or loss thereon shall affect the amounts payable hereunder and Parent shall take all actions necessary to ensure that the Payment Fund includes at all times cash sufficient to satisfy Parent's and Purchaser's obligations under this Agreement.

(b) Promptly after the Effective Time (but in no event later than five (5) business days thereafter), the Surviving Corporation shall cause to be delivered to each Person who was, at the Effective Time, a holder of record of (i) Shares represented by a certificate evidencing such Shares (the "Certificates") or (ii) Book-Entry Shares, who, in each case was entitled to receive the Merger Consideration pursuant to Section 2.5, (A) a form of letter of transmittal, which shall be in reasonable and customary form and shall specify that delivery shall be effected, and risk of loss and title to the Certificates shall pass, only upon proper delivery of the Certificates (or affidavits of loss in lieu thereof in accordance with Section 2.6(f), if applicable) to the Paying Agent, or a customary agent's message in respect to Book-Entry Shares, and (B) instructions for use in effecting the surrender of the Certificates or Book-Entry Shares in exchange for the Merger Consideration issuable and payable in respect of such Shares pursuant to Section 2.5. Upon surrender to the Paying Agent of Certificates (or affidavits of loss in lieu thereof in accordance with Section 2.6(f), if applicable) or Book-Entry Shares, together with such letter of transmittal in the case of Certificates, duly completed and validly executed in accordance with the instructions thereto, and such other documents as may be required pursuant to the instructions, the holder of such Certificates or Book-Entry Shares shall be entitled to receive in exchange therefor the Merger Consideration for each Share formerly evidenced by such Certificates or Book-Entry Shares, and such Certificates and Book-Entry Shares shall then be cancelled. No interest shall accrue or be paid on the Merger Consideration payable upon the surrender of any Certificates or Book-Entry Shares for the benefit of the holder thereof. If the payment of any Merger Consideration is to be made to a Person other than the Person in whose name the surrendered Certificates formerly evidencing the Shares is registered on the stock transfer books of the Company, it shall be a condition of payment that the Certificate so surrendered shall be endorsed properly or otherwise be in proper form for transfer and that the Person requesting such payment shall have paid all transfer and other similar Taxes required by reason of the payment of the Merger Consideration to a Person other than the registered holder of the Certificate surrendered, or shall have established to the satisfaction of the Surviving Corporation that such transfer or other Taxes either have been paid or are not applicable. None of Parent, Purchaser and the Surviving Corporation shall have any liability for the transfer and other similar Taxes described in this Section 2.6(b) under any circumstance. Payment of the applicable Merger Consideration with respect to Book-Entry Shares shall only be made to the Person in whose name such Book-Entry Shares are registered. Until surrendered as

contemplated by this Section 2.6, each Certificate and Book-Entry Share shall be deemed at any time after the Effective Time to represent only the right to receive the applicable Merger Consideration as contemplated by Section 2.5.

(c) At any time following twelve (12) months after the Effective Time, Parent shall be entitled to require the Paying Agent to deliver to it any funds (with respect to the aggregate Merger Consideration to which holders of Shares shall become entitled pursuant to Section 2.5) which had been made available to the Paying Agent and not disbursed to holders of Certificates or Book-Entry Shares (including all interest and other income received by the Paying Agent in respect of all funds made available to it), and, thereafter, such holders shall be entitled to look to the Surviving Corporation (subject to abandoned property, escheat and other similar Legal Requirements) only as general creditors thereof with respect to the Merger Consideration that may be payable upon due surrender of the Certificates or Book-Entry Shares held by them, without any interest thereon. Notwithstanding the foregoing, neither the Surviving Corporation nor the Paying Agent shall be liable to any holder of Certificates or Book-Entry Shares for the Merger Consideration delivered in respect of such share to a public official pursuant to any abandoned property, escheat or other similar Legal Requirements. Any amounts remaining unclaimed by such holders at such time at which such amounts would otherwise escheat to or become property of any Governmental Body shall become, to the extent permitted by applicable Legal Requirements, the property of the Surviving Corporation or its designee, free and clear of all claims or interest of any Person previously entitled thereto.

(d) At the close of business on the day of the Effective Time, the stock transfer books of the Company with respect to the Shares shall be closed and thereafter there shall be no further registration of transfers of Shares on the records of the Company. From and after the Effective Time, the holders of the Shares outstanding immediately prior to the Effective Time shall cease to have any rights with respect to such Shares except as otherwise provided herein or by applicable Legal Requirements. If, after the Effective Time, Certificates or Book-Entry Shares are presented to the Surviving Corporation for any reason, they shall be cancelled and exchanged as provided in this Agreement.

(e) Each of the Company, the Surviving Corporation, Parent and Purchaser, and their Affiliates, shall be entitled to deduct and withhold (or cause the Paying Agent or the Depository Agent to deduct and withhold) from the Offer Price, the Merger Consideration payable to any holder of the Shares or any holder of Company Options or Company RSUs or any other consideration otherwise payable pursuant to this Agreement such amounts as it is required by any Legal Requirement to deduct and withhold with respect to Taxes. Each such payor shall take all action that may be necessary to ensure that any such amounts so withheld are promptly and properly remitted to the appropriate Governmental Body. To the extent that amounts are so deducted or withheld and properly remitted to the appropriate Governmental Body, such deducted or withheld amounts shall be treated for all purposes of this Agreement as having been paid to the holder of the Shares, holder of Company Options or Company RSUs or other recipient of consideration hereunder in respect of which such deduction and withholding was made.

(f) If any Certificate shall have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the holder of the Shares formerly represented by that

Certificate, or by a representative of that holder, claiming that Certificate to be lost, stolen or destroyed and, if required by the Surviving Corporation, the posting by that holder of a bond, in such reasonable amount as Parent may direct, as indemnity against any claim that may be made against it with respect to such Certificate (which shall not exceed the Merger Consideration payable with respect to such Certificate), the Paying Agent will pay (less any amounts entitled to be deducted or withheld pursuant to Section 2.6(e)), in exchange for such lost, stolen or destroyed Certificate, the applicable Merger Consideration to be paid in respect of the Shares formerly represented by such Certificate, as contemplated by this Section 2.

2.7 Dissenters' Rights. Notwithstanding anything in this Agreement to the contrary, Shares outstanding immediately prior to the Effective Time, and held by holders who are entitled to appraisal rights under Section 262 of the DGCL and have properly exercised and perfected their respective demands for appraisal of such Shares in the time and manner provided in Section 262 of the DGCL and, as of the Effective Time, have neither effectively withdrawn nor lost their rights to such appraisal and payment under the DGCL (the "Dissenting Shares"), shall not be converted into the right to receive Merger Consideration, but shall, by virtue of the Merger, be automatically cancelled and no longer outstanding, shall cease to exist and shall be entitled to only such consideration as shall be determined pursuant to Section 262 of the DGCL; *provided* that if any such holder shall have failed to perfect or shall have effectively withdrawn or lost such holder's right to appraisal and payment under the DGCL, such holder's Shares shall be deemed to have been converted as of the Effective Time into the right to receive the Merger Consideration (less any amounts entitled to be deducted or withheld pursuant to Section 2.6(e)), and such Shares shall not be deemed to be Dissenting Shares. The Company shall give prompt notice to Parent and Purchaser of any demands received by the Company for appraisal of any Dissenting Shares, withdrawals of such demands and any other instruments served pursuant to Section 262 of the DGCL, in each case prior to the Effective Time. Parent and Purchaser shall have the right to direct and participate in all negotiations and proceedings with respect to such demands, and the Company shall not, without the prior written consent of Parent and Purchaser, settle or offer to settle, or make any payment with respect to, any such demands, or agree or commit to do any of the foregoing.

2.8 Treatment of Company Options and Company RSUs.

(a) At the Effective Time, each Company Option that is then outstanding and unexercised, whether or not vested and which has a per share exercise price that is less than the Merger Consideration (each, an "In the Money Option"), shall be cancelled and converted into the right of the holder thereof to receive a cash payment equal to (A) the excess of (x) the Merger Consideration over (y) the exercise price payable per Share under such In the Money Option, *multiplied by* (B) the total number of Shares subject to such In the Money Option immediately prior to the Effective Time (without regard to vesting).

(b) At the Effective Time, each Company Option, other than an In the Money Option, that is then outstanding and unexercised, whether or not vested, shall be cancelled with no consideration payable to the holder thereof in respect thereof.

(c) At the Effective Time, each then outstanding Company RSU, whether or not vested, shall be cancelled and the holder thereof shall be entitled to receive a cash payment

equal to the product of (i) the Merger Consideration and (ii) the number of Shares subject to such Company RSU immediately prior to the Effective Time.

(d) As soon as reasonably practicable after the Effective Time (but no later than the later of (i) five (5) business days after the Effective Time and (ii) the first payroll date after the Effective Time), Parent shall cause the Surviving Corporation to, and the Surviving Corporation shall, pay the aggregate consideration payable pursuant to Sections 2.8(a) and 2.8(c), net of any applicable withholding Taxes, with respect to In the Money Options and Company RSUs through, to the extent applicable, the Surviving Corporation's payroll to the holders of Company Options and/or Company RSUs.

(e) Prior to the Effective Time, the Company shall take all actions appropriate or necessary to effect the transactions described in this Section 2.8, including, if deemed appropriate or necessary by the Company, the acceleration of the exercisability of the Company Options.

(f) To the extent a payment made pursuant to the timing otherwise set forth in this Section 2.8 would trigger a Tax or penalty under Section 409A of the Code, such payment shall be made on the earliest subsequent date that payment would not trigger such Tax or penalty.

2.9 FIRPTA Certificate. At the Closing, the Company shall deliver to Parent a certificate and form of notice to the IRS prepared in accordance with the requirements of Treasury Regulation Section 1.897-2(h)(2) (the "FIRPTA Certificate") along with written authorization for Parent to deliver the FIRPTA Certificate to the IRS on behalf of the Company upon the Closing of the Merger. The Company's obligation to deliver the FIRPTA Certificate shall not be considered a condition precedent to the Offer or the Closing of the Merger.

2.10 Further Action. The Parties agree to take all necessary action to cause the Merger to become effective in accordance with this Section 2 as soon as practicable following the consummation of the Offer without a meeting of the Company's stockholders, as provided in Section 251(h) of the DGCL. If, at any time after the Effective Time, any further action is reasonably determined by Parent to be necessary or desirable to carry out the purposes of this Agreement or to vest the Surviving Corporation with full right, title and possession of and to all rights and property of Purchaser and the Company, the officers and directors of the Surviving Corporation and Parent shall be fully authorized (in the name of Purchaser, in the name of the Company and otherwise) to take such action.

SECTION 3

REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company hereby represents and warrants to Parent and Purchaser as follows (it being understood that (a) each representation and warranty contained in this Section 3 is subject to (i) exceptions and disclosures set forth in the section or subsection of the Company Disclosure Schedule corresponding to the particular Section or subsection in this Section 3; (ii) any exception or disclosure set forth in any other section or subsection of the Company Disclosure

Schedule to the extent it is reasonably apparent that such exception or disclosure is applicable to qualify such representation and warranty; and (iii) disclosure in the Company SEC Documents filed and publicly available prior to the date of this Agreement (other than any information in the “Risk Factors” or “Forward-Looking Statements” sections of such Company SEC Documents or other general cautionary or forward-looking statements in any other sections of such Company SEC Documents), (b) the representations and warranties contained in this Section 3 are not made in respect of any Contract solely between the Company or any of its Subsidiaries, on the one hand, and Parent or any of its Affiliates, on the other hand, and (c) all matters actually known as of the date hereof by Parent’s chief executive officer, chief financial officer and general counsel shall be deemed disclosed in respect of this Agreement).

3.1 Due Organization; Subsidiaries, Etc.

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, and the Company’s only Subsidiaries are set forth in Exhibit 21.1 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (the Company and each such Subsidiary, an “Acquired Corporation” and collectively, the “Acquired Corporations”). Each such Subsidiary is an Entity duly organized, validly existing and, except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, in good standing under the laws of the jurisdiction of its incorporation, formation or organization, as applicable. Each Acquired Corporation has all necessary power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; and (ii) to own and use its assets in the manner in which its assets are currently owned and used, except as would not reasonably be expected to have a Material Adverse Effect. Each Acquired Corporation is qualified or licensed to do business as a foreign corporation, and is in good standing, in each jurisdiction where the nature of its business requires such qualification or licensing, except where the failure does not have, and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(b) The Company owns beneficially and of record all of the outstanding shares of capital stock or equity interests of the other Acquired Corporations, free and clear of all Encumbrances and transfer restrictions, except for Permitted Encumbrances or Encumbrances or transfer restrictions of general applicability as may be provided under the Securities Act or applicable securities laws. Except for the shares of capital stock or equity interests of the other Acquired Corporations held by the Company, no Acquired Corporation owns, directly or indirectly, any capital stock or equity interests of, or subscriptions, options, calls, warrants or rights (whether or not currently exercisable) to acquire, or other securities convertible into or exchangeable or exercisable for, any capital stock or equity interests of any Entity.

3.2 Certificate of Incorporation and Bylaws. The Company has delivered or made available to Parent accurate and complete copies of its certificate of incorporation and bylaws, including all amendments thereto, as in effect on the date hereof, through filings with the SEC.

3.3 Capitalization, Etc.

(a) The authorized capital stock of the Company consists of: (i) 125,000,000 Shares, of which 101,615,491 Shares had been issued and were outstanding as of the close of business on August 27, 2020, none of which were subject to vesting or employment-based forfeiture conditions; and (ii) 10,000,000 shares of Company Preferred Stock, of which no shares are outstanding. From the close of business on August 27, 2020 through the date of this Agreement, there have been no issuances of any Shares, other than issuances of Shares pursuant to the exercise, vesting or settlement, as applicable, of any Company Options or Company RSUs outstanding as of August 27, 2020 in accordance with the terms of such Company Options or Company RSUs. All of the outstanding Shares and the outstanding shares of capital stock or equity interests of the other Acquired Corporations have been duly authorized and validly issued, and are fully paid and nonassessable.

(b) (i) None of the outstanding shares of capital stock or equity interests of the Acquired Corporations are entitled or subject to any preemptive right, right of repurchase or forfeiture, right of participation, right of maintenance or any similar right; (ii) none of the outstanding shares of capital stock or equity interests of the Acquired Corporations are subject to any right of first refusal in favor of any Acquired Corporation; (iii) there are no outstanding bonds, debentures, notes or other indebtedness of any Acquired Corporation having a right to vote on any matters on which the stockholders of the Acquired Corporations have a right to vote; and (iv) there is no Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or from granting any option or similar right with respect to), any shares of capital stock or equity interests of the Acquired Corporations. No Acquired Corporation is under any obligation to repurchase, redeem or otherwise acquire any outstanding shares of capital stock or equity interests of the Acquired Corporations. The Shares constitute the only outstanding class of securities of any Acquired Corporation registered under the Securities Act.

(c) As of the close of business on August 27, 2020: (i) 10,053,397 Shares were subject to issuance pursuant to Company Options granted and outstanding under the Company Equity Plan and (ii) 1,536,119 Shares were subject to issuance pursuant to Company RSUs granted and outstanding under the Company Equity Plan. As of the close of business on June 30, 2020: (A) 6,607,438 Shares were reserved for future issuance under the Company Equity Plan and (B) 1,893,951 Shares were reserved for future issuance under the Company ESPP. Other than as set forth in this Section 3.3(c), there is no issued, reserved for issuance, outstanding or authorized stock option, stock appreciation, phantom stock, profit participation or similar rights or equity-based awards with respect to any Acquired Corporation.

(d) Except as set forth in this Section 3.3 and except for the Company Options and Company RSUs outstanding as of the date of this Agreement (and Shares issuable upon the exercise thereof), there are no: (i) outstanding shares of capital stock or other securities of any Acquired Corporation; (ii) outstanding subscriptions, options, calls, warrants or rights (whether or not currently exercisable) to acquire any shares of the capital stock, restricted stock unit, stock-based performance unit or any other right that is linked to, or the value of which is in any way based on or derived from the value of any shares of capital stock or other securities of any Acquired Corporation, in each case other than derivative securities not issued by an Acquired

Corporation; (iii) outstanding securities, instruments, bonds, debentures, notes or obligations that are or may become convertible into or exchangeable for any shares of the capital stock or other securities of any Acquired Corporation; or (iv) stockholder rights plans (or similar plans commonly referred to as a “poison pill”) or Contracts under which any Acquired Corporation is obligated to sell or otherwise issue any shares of its capital stock or any other securities.

(e) The Company has delivered or made available a true and correct listing of all Persons who hold outstanding Company Options or Company RSUs as of the close of business on August 24, 2020, indicating, with respect to each Company Option or Company RSU, the number of Shares subject thereto and, with respect to Company Options, the per-Share exercise price.

3.4 SEC Filings; Financial Statements.

(a) Since July 19, 2017 (the “IPO Date”), the Company has filed or furnished on a timely basis all reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated therein) required to be filed or furnished by the Company with the SEC (as supplemented, modified or amended since the time of filing, the “Company SEC Documents”). As of their respective dates, or, if amended prior to the date of this Agreement, as of the date of (and giving effect to) the last such amendment (and, in the case of registration statements and proxy statements, on the date of effectiveness and the dates of the relevant meetings, respectively), the Company SEC Documents complied in all material respects with the requirements of the Securities Act, the Exchange Act or the Sarbanes-Oxley Act of 2002, as amended (the “Sarbanes-Oxley Act”), as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to those Company SEC Documents, and, except to the extent that information contained in such Company SEC Document has been revised, amended, modified or superseded (prior to the date of this Agreement) by a later filed Company SEC Document, none of the Company SEC Documents when filed or furnished contained any untrue statement of a material fact or omitted 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 financial statements (including any related notes and schedules) contained or incorporated by reference in the Company SEC Documents: (i) complied as to form in all material respects with the published rules and regulations of the SEC applicable thereto; (ii) were prepared in accordance with United States generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods covered (except as may be indicated in the notes to such financial statements or, in the case of unaudited interim financial statements, as may be permitted by the SEC on Form 10-Q, 8-K or any successor form under the Exchange Act); and (iii) fairly presented, in all material respects, the financial position of the Company as of the respective dates thereof and the results of operations and cash flows of the Company for the periods covered thereby (subject, in the case of the unaudited financial statements, to the absence of notes and to normal and recurring year-end adjustments).

(c) The Company maintains a system of internal control over financial reporting (as defined in Rule 13a-15 under the Exchange Act) which is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of

financial statements for external purposes in accordance with GAAP, and includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and that receipts and expenditures are being made only in accordance with authorizations of management and the Board of Directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the assets of the Company that could have a material effect on the financial statements. The Company's management has completed an assessment of the effectiveness of the Company's system of internal control over financial reporting in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act for the fiscal year ended December 31, 2019, and, except as set forth in the Company SEC Documents filed prior to the date of this Agreement, that assessment concluded that those controls were effective. To the knowledge of the Company, since January 1, 2020, neither the Company nor the Company's independent registered accountant has identified or been made aware of: (1) any significant deficiency or material weakness in the design or operation of the internal control over financial reporting utilized by the Company, which is reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; or (2) any fraud, whether or not material, that involves the management or other employees of the Company who have a significant role in the Company's internal control over financial reporting.

(d) The Company maintains disclosure controls and procedures as defined in and required by Rule 13a-15 or 15d-15 under the Exchange Act that are reasonably designed to ensure that all information required to be disclosed in the Company's reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that all such information is accumulated and communicated to the Company's management as appropriate to allow timely decisions regarding required disclosure and to enable the principal executive officer of the Company and the principal financial officer of the Company to make the certifications required under the Exchange Act with respect to such reports. The Company is in compliance in all material respects with all current listing and corporate governance requirements of Nasdaq.

(e) The Company is not a party to, nor does it have any obligation or other commitment to become a party to, "off-balance sheet arrangements" (as defined in Item 303(a) of Regulation S-K under the Exchange Act) where the result, purpose or intended effect of such Contract is to avoid disclosure of any material transaction involving, or material liabilities of, the Company in the Company SEC Documents.

(f) As of the date of this Agreement, there are no outstanding or unresolved comments in comment letters received from the SEC with respect to the Company SEC Documents. To the knowledge of the Company, none of the Company SEC Documents is the subject of ongoing SEC review and there are no inquiries or investigations by the SEC or any internal investigations pending or threatened, in each case regarding any accounting practices of the Company.

(g) Each document required to be filed by the Company with the SEC in connection with the Offer, including the Schedule 14D-9 and Company Schedule 13E-3 (the

“Company Disclosure Documents”), and any amendments or supplements thereto, when filed, distributed or otherwise disseminated to the Company’s stockholders, as applicable, will comply as to form in all material respects with the applicable requirements of the Exchange Act. The Company Disclosure Documents, at the time of the filing of such Company Disclosure Documents or any supplement or amendment thereto with the SEC and at the time such Company Disclosure Documents or any supplements or amendments thereto are first distributed or otherwise disseminated to the Company’s stockholders, will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(i) The information with respect to the Company that the Company furnishes to Parent or Purchaser specifically for use in the Offer Documents or the Parent Schedule 13E-3, at the time of the filing of and at the time of any distribution or dissemination of the Offer Documents and the Parent Schedule 13E-3, will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(ii) Notwithstanding the foregoing, the Company makes no representation with respect to statements made or incorporated by reference therein based on information supplied by or on behalf of Parent or Purchaser for inclusion or incorporation by reference in the Company Disclosure Documents.

3.5 Absence of Changes; No Material Adverse Effect. Except as expressly contemplated by this Agreement, from June 30, 2020 through the date of this Agreement:

(a) except for discussions, negotiations and activities related to this Agreement or other potential strategic transactions, the Acquired Corporations have operated in all material respects in the ordinary course of business consistent with past practice; and

(b) there has not occurred any event, occurrence, circumstance, change or effect that, individually or in the aggregate, has had or would reasonably be expected to have, a Material Adverse Effect.

3.6 Title to Assets. Each Acquired Corporation has good and valid title to all material assets (excluding Intellectual Property Rights) owned by it as of the date of this Agreement, and such assets are owned by the Acquired Corporations free and clear of any Encumbrances (other than Permitted Encumbrances).

3.7 Real Property.

(a) The Acquired Corporations do not own any real property.

(b) The Acquired Corporations hold valid and existing leasehold interests in the real property that is leased or subleased by the Acquired Corporations from another Person and is listed in the Company SEC Documents (the “Material Leased Real Property”), free and clear of all Encumbrances other than Permitted Encumbrances. No Acquired Corporation has

received any written notice regarding any material violation or breach or default under any lease related to the Material Leased Real Property that has not since been cured.

3.8 Intellectual Property; Privacy.

(a) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) all Registered IP that is Owned IP or Registered IP exclusively licensed to any Acquired Corporation are valid, enforceable, subsisting and not abandoned or cancelled and (ii) no Legal Proceeding (other than routine examination proceedings with respect to pending applications) is pending or, to the knowledge of the Company, threatened in writing against any Acquired Corporation, in which the validity of any Registered IP owned or purported to be owned by, or exclusively licensed to, an Acquired Corporation is being contested or challenged.

(b) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) the Acquired Corporations are the sole and exclusive owners of all Registered IP that is Owned IP, in each case owned or purported to be owned by the Acquired Corporations, free and clear of all Encumbrances (other than Permitted Encumbrances and Out-bound Licenses) and (ii) the Company has the legal power to convey to the Surviving Corporation all of its rights in all material Company IP.

(c) To the knowledge of the Company, except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) each Company Associate who is involved in the creation of any material Company IP has signed an agreement containing an assignment of Intellectual Property Rights to an Acquired Corporation and confidentiality provisions protecting such Company IP, (ii) there is no breach under any such agreement and (iii) no Governmental Body holds any ownership rights to Owned IP.

(d) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, the Acquired Corporations have taken reasonable steps to maintain the confidentiality of all Trade Secrets held by an Acquired Corporation.

(e) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) to the knowledge of the Company, the operation of the Acquired Corporations' business as currently conducted does not infringe, misappropriate or otherwise violate any Intellectual Property Rights owned or purported to be owned by any other Person; (ii) no Legal Proceeding is pending or, is being threatened in writing against an Acquired Corporation alleging infringement, misappropriation or other violation of any Intellectual Property Rights of another Person; and (iii) to the knowledge of the Company, in the two (2) years prior to the date hereof, no Acquired Corporation has received any written notice alleging any infringement, misappropriation or other violation of any Intellectual Property Right of another Person by an Acquired Corporation.

(f) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) to the knowledge of the Company, no Person is infringing, misappropriating or otherwise violating in any respect any Company IP and (ii) no Legal

Proceeding is pending or threatened in writing by an Acquired Corporation alleging infringement, misappropriation or other violation of any Company IP.

(g) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, none of the Company IP owned or purported to be owned by an Acquired Corporation is subject to any pending or outstanding order or judgment, that restricts the use or licensing of any such Company IP by an Acquired Corporation, or otherwise affects in any respect the validity, use or enforceability of any such Company IP.

(h) To the knowledge of the Company, each Acquired Corporation owns or is licensed to use, or has the right to use, all Registered IP necessary for the conduct of business substantially in the manner conducted, except as has not had, and would not be reasonably expected to have, a Material Adverse Effect. Notwithstanding anything to the contrary in this Agreement, the foregoing representation is not to be interpreted as a representation regarding infringement or misappropriation of any Intellectual Property Rights owned or purported to be owned by any other Person, which is dealt with exclusively in Section 3.8(e) above.

(i) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) the Acquired Corporations are in compliance with applicable Legal Requirements, as well as their own policies, relating to privacy, data protection or the collection and use of Personal Data collected, used or held for use by or on behalf of any Acquired Corporation and (ii) no Legal Proceedings are pending or threatened in writing against any Acquired Corporation alleging a violation of any applicable Legal Requirements, or any Acquired Corporation's own policies relating to privacy, data protection or the collection and use of Personal Data.

(j) Except as has not had, and would not be reasonably expected to have, a Material Adverse Effect, (i) the Acquired Corporations have implemented a written information security program that includes appropriate administrative, physical and technical safeguards to secure any Personal Data used by the Acquired Corporations from unauthorized use or access, acquisition or other compromise of such Personal Data (any such incident, a "Security Incident") and (ii), to the Company's knowledge, in the one year prior to the date hereof, there have not been any Security Incidents or Legal Proceedings related to actual or alleged Security Incidents.

3.9 Contracts.

(a) Section 3.9(a) of the Company Disclosure Schedule identifies each Contract to which any Acquired Corporation is a party, or by which it is bound, that constitutes a Material Contract as of the date of this Agreement; *provided, however*, that Section 3.9(a) of the Company Disclosure Schedule does not identify any Contracts with Parent or its Affiliates. For purposes of this Agreement, each of the following to which any Acquired Corporation is a party or by which it is bound as of the date of this Agreement constitutes a "Material Contract" (excluding any Employee Plan):

(i) any Contract that is a settlement, conciliation or similar agreement with or approved by any Governmental Body and pursuant to which (A) an Acquired

Corporation will be required after the date of this Agreement to pay any monetary obligations or (B) that contains material obligations or limitations on such Acquired Corporation's conduct;

(ii) any Contract (A) materially limiting the freedom or right of any Acquired Corporation to engage in any line of business or to compete with any other Person in any location or line of business, (B) containing any material "most favored nations" terms and conditions (including with respect to pricing) granted by any Acquired Corporation or (C) containing material exclusivity obligations or otherwise materially limiting the freedom or right of any Acquired Corporation to sell, distribute or manufacture any products or services for any other Person;

(iii) any Contract that requires by its terms or is reasonably expected to require the payment or delivery of cash or other consideration to any Acquired Corporation in an amount having an expected value in excess of \$2,000,000 in the fiscal year ending December 31, 2020, or by any Acquired Corporation in an amount having an expected value in excess of \$2,000,000 in the fiscal year ending December 31, 2020, and in each case which cannot be cancelled by such Acquired Corporation without penalty or further payment without more than ninety (90) days' notice;

(iv) any Contract relating to Indebtedness in excess of \$500,000 (whether incurred, assumed, guaranteed or secured by any asset) of any Acquired Corporation;

(v) any Contract with any Person constituting a material joint venture, collaboration, partnership or similar profit sharing arrangement;

(vi) any Contract with a group purchasing organization;

(vii) any Contract that prohibits the declaration or payment of dividends or distributions in respect of the capital stock or equity interests of an Acquired Corporation, the pledging of the capital stock or equity interests of an Acquired Corporation or the issuance of any guaranty by an Acquired Corporation;

(viii) any material In-bound License, Third Party IP Contract or Out-bound License;

(ix) any Contract pursuant to which the Company has continuing obligations or interests involving (1) the achievement of regulatory or commercial milestones or other similar contingent payments in excess of \$2,000,000 or (2) payment of royalties or other amounts calculated based upon any revenues or income of the Company, in each case that cannot be terminated by the Company without penalty or further payment without more than ninety (90) days' notice;

(x) any stockholders, investor rights, registration rights or similar Contract;

(xi) each Contract related to the acquisition or divestiture of a business or material assets that contains continuing representations, covenants, indemnities or other obligations (including "earn-out" or other contingent payment obligations);

(xii) any Real Property Lease; and

(xiii) any other Contract that is currently in effect and has been filed (or is required to be filed) by the Company as an exhibit pursuant to Item 601(b)(10) of Regulation S-K under the Securities Act or that would be required to be disclosed under Item 404 of Regulation S-K under the Securities Act.

(b) As of the date of this Agreement, the Company has either delivered or made available to Parent an accurate and complete copy of each Material Contract or has publicly made available such Material Contract in the Electronic Data Gathering, Analysis and Retrieval (EDGAR) database of the SEC. No Acquired Corporation nor, to the knowledge of the Company, the other party is in material breach of, or material default under, any Material Contract and no Acquired Corporation, or to the knowledge of the Company, the other party to a Material Contract has taken or failed to take any action that with or without notice, lapse of time or both would constitute a material breach of or material default under any Material Contract. Each Material Contract is, with respect to the Acquired Corporations and, to the knowledge of the Company, the other party, a valid and binding agreement in full force and effect, enforceable in accordance with its terms, except as such enforcement may be subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights, and by general equitable principles. Since the IPO Date, the Acquired Corporations have not received any written notice regarding any material violation or breach or default under any Material Contract that has not since been cured.

3.10 Undisclosed Liabilities. The Acquired Corporations do not have any liabilities (whether accrued, absolute, contingent or otherwise) except for: (i) liabilities reflected or reserved against in the financial statements or notes thereto included in the Company SEC Documents filed prior to the date of this Agreement; (ii) liabilities or obligations incurred pursuant to the terms of this Agreement and in respect of the Transactions; (iii) liabilities for performance of obligations under Contracts binding upon the Acquired Corporations (other than resulting from any breach thereof) either delivered or made available to Parent prior to the date of this Agreement or entered into in the ordinary course of business consistent with past practice; (iv) liabilities incurred in the ordinary course of business consistent with past practice since June 30, 2020; and (v) liabilities that have not, and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

3.11 Compliance with Legal Requirements. Except as has not had, and would not reasonably be expected to have, a Material Adverse Effect, the Acquired Corporations are, and since the IPO Date have been, in compliance with all applicable Legal Requirements and, since the IPO Date, no Acquired Corporation has been given written notice of, or been charged with, any material violation of, any applicable Legal Requirement.

3.12 Regulatory Matters.

(a) The Acquired Corporations have filed with the applicable regulatory authorities (including the FDA, the EMA or any other Governmental Body performing functions similar to those performed by the FDA) all required material filings, declarations, listings, registrations, reports or submissions, including but not limited to Adverse Drug Reaction

Reporting, since the IPO Date. All such filings, declarations, listings, registrations, reports or submissions were in material compliance with applicable Legal Requirements when filed, and no deficiencies have been asserted in writing by any applicable Governmental Body with respect to any such filings, declarations, listings, registrations, reports or submissions that have not been remedied.

(b) The Acquired Corporations hold all material Regulatory Permits required for their business as currently conducted, and each such Regulatory Permit is valid and in full force and effect. The Acquired Corporations are in compliance in all material respects with the terms and requirements of such Regulatory Permits. Since the IPO Date, no deficiencies have been asserted in writing by any applicable Governmental Body with respect to any Regulatory Permits of the Acquired Corporations.

(c) Since the IPO Date, the Acquired Corporations have not received any written notice from a Governmental Body that any of their products are misbranded as defined in 21 U.S.C. § 352 or adulterated as defined in 21 U.S.C. § 351, as amended, and the rules and regulations promulgated thereunder, or as defined in comparable Legal Requirements in any jurisdiction.

(d) Except as set forth in Company Disclosure Schedule, all preclinical and clinical investigations sponsored by the Acquired Corporations (each such preclinical or clinical investigation with respect to a material product or product candidate of the Acquired Corporations, a “Clinical Study.”) have been and are being conducted in material compliance with applicable Legal Requirements, including Good Clinical Practice Requirements. No Acquired Corporation has received any written notice or other correspondence from the FDA, the EMA or any other Governmental Body performing functions similar to those performed by the FDA requiring the termination, suspension or material modification of any ongoing Clinical Study.

(e) No Acquired Corporation has (i) made an untrue statement of a material fact or fraudulent statement to the FDA, the EMA or any similar Governmental Body, (ii) failed to disclose a material fact required to be disclosed to the FDA, the EMA or any similar Governmental Body or (iii) committed any other act, made any statement or failed to make any statement, that (in any such case) establishes a reasonable basis for the FDA to invoke its Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities Final Policy or for any other Governmental Body to invoke any similar policy. As of the date of this Agreement, no Acquired Corporation is the subject of any pending or, to the knowledge of the Company, threatened investigation by the FDA pursuant to its Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities Final Policy or by any other Governmental Body under any similar policy. No Acquired Corporation nor, to the knowledge of the Company, any officer, employee or agent of an Acquired Corporation nor any clinical investigator conducting any Clinical Studies has been suspended or debarred or convicted of any crime or engaged in any conduct that would reasonably be expected to result in (A) debarment under 21 U.S.C. § 335a or any similar Legal Requirement or (B) exclusion under 42 U.S.C. § 1320a-7 or any similar Legal Requirement.

(f) Each Acquired Corporation, to the knowledge of the Company, is in compliance and has, since the IPO Date, been in compliance, in each case, in all material

respects, with all pharmaceutical- and healthcare-related Legal Requirements applicable to the operation of its business, including (together with their implementing regulations and in each case as amended) (i) the FDCA; (ii) the Public Health Service Act, (iii) the Health Insurance Portability and Accountability Act of 1996; (iv) the Health Information and Technology for Economic and Clinical Health Act; (v) the federal Medicare and Medicaid statutes; (vi) government program and price reporting Legal Requirements under the Medicaid Drug Rebate Program (42 U.S.C. § 1396r-8), the Medicare program (42 U.S.C. § 1395w-3a), the United States Department of Veterans Affairs Federal Supply Schedule (38 U.S.C. § 8126) including requirements under related contracts and agreements; (vii) the Physician Payments Sunshine Act; (viii) the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7(b)); (ix) the federal False Claims Act (42 U.S.C. § 1320a-7b(a)); (x) the Civil Monetary Penalty provisions of the Social Security Act; and (xiii) all applicable foreign Legal Requirements equivalent to any of the foregoing (the “Healthcare Laws”). To the knowledge of the Company, no Acquired Corporation, is subject to any enforcement, regulatory or administrative proceedings, audit, or investigation against such Acquired Corporation relating to or arising under the Healthcare Laws, and no such enforcement, regulatory or administrative proceeding, or audit or investigation has been threatened in writing.

(g) Since the IPO Date, there have been no product recalls conducted by the Acquired Corporations and no written requests from any Governmental Body requiring the Acquired Corporations to cease to manufacture, market, distribute or sell any products of the Acquired Corporations.

(h) The Acquired Corporations have implemented and have in place a compliance program that satisfies in all material respects the fundamental requirements of the Federal Sentencing Guidelines and the principles established by the Department of Health and Human Services, Office of Inspector General (HHS-OIG).

(i) To the knowledge of the Company, no person has filed against the Company any Legal Proceeding relating to the Company under any federal or state whistleblower statute, including under the False Claims Act of 1863 (31 U.S.C. § 3729 et seq.).

(j) Since the IPO Date, no Acquired Corporation has been notified in writing by any Governmental Body of any failure (or any investigation with respect thereto) by it or any representative, agent, contract manufacturing organization, contract research organization, clinical investigator or clinical trial site acting on behalf of an Acquired Corporation to comply with any Healthcare Law including those pertaining to the conduct of clinical studies, pharmacovigilance, Good Manufacturing Practice Requirements, Good Laboratory Practice Requirements, Good Clinical Practice Requirements, establishment registration and product listing requirements, requirements applicable to the debarment of individuals, requirements applicable to clinical trial sponsors related to financial disclosures for clinical investigators and Adverse Drug Reaction Reporting requirements, in each case with respect to any product or product candidates of any Acquired Corporation, except for such failures or investigations which would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(k) Notwithstanding anything to the contrary in this Agreement, none of the representations and warranties in this Section 3.12 are given with respect to any action (or

omission to act) in respect of any research, development, collaboration or similar commercialization activities undertaken jointly between an Acquired Corporation, on the one hand, and Parent or any of its Subsidiaries, on the other hand, other than any such action (or omission to act) by an Acquired Corporation solely on its own behalf.

3.13 Certain Business Practices. No Acquired Corporation nor, to the knowledge of the Company, any of its Representatives (in each case, acting in the capacity of a Representative of such Acquired Corporation) has (i) used any material funds (whether of an Acquired Corporation or otherwise) for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns or (iii) violated any provision of any Anti-Corruption Laws or any rules or regulations promulgated thereunder, anti-money laundering laws or any rules or regulations promulgated thereunder or any applicable Legal Requirement of similar effect. Since the IPO Date, no Acquired Corporation has received any written communication from a Governmental Body that alleges any of the foregoing.

3.14 Governmental Authorizations. The Acquired Corporations hold all material Governmental Authorizations necessary to enable the Acquired Corporations to conduct their business in the manner in which such business is currently being conducted. The material Governmental Authorizations held by the Acquired Corporations are valid and in full force and effect. The Acquired Corporations are in compliance, in all material respects, with the terms and requirements of such Governmental Authorizations.

3.15 Tax Matters. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, with respect to the representations contained in subsections (a) through (f) and (h) through (j) below:

(a) (i) Each of the income and other material Tax Returns required to be filed by or on behalf of an Acquired Corporation with any Governmental Body on or before the Closing Date (the "Company Returns") has been or will be filed on or before the applicable due date (including any valid extensions of such due date), and has been, or will be when filed, prepared in accordance with all applicable Legal Requirements and is true, correct and complete in all material respects, and (ii) all material Taxes due and payable by an Acquired Corporation (whether or not shown on the Company Returns) on or before the Closing Date have been or will be timely paid to the relevant Governmental Body.

(b) Each Acquired Corporation has complied with all applicable Legal Requirements relating to the payment, collection, withholding and remittance of Taxes (including information reporting or similar requirements) with respect to payments made to or received from any employee, independent contractor, creditor, stockholder, customer or other third party.

(c) The most recent balance sheet included in the Company SEC Documents filed prior to the date of this Agreement reflects adequate accruals and reserves for all liabilities of the Company for Taxes with respect to all periods through the date thereof in accordance with GAAP. Each Acquired Corporation shall establish or has established, in the ordinary course of

business consistent with past practice and in accordance with GAAP, reserves adequate for the payment of all material Taxes that are unpaid or that are not yet due and payable for any taxable period that ends on or prior to the Closing Date or for the pre-Closing portion of any taxable period that includes the Closing Date.

(d) There are no pending examinations, audits or other Legal Proceedings now pending or asserted, contemplated, or threatened, in each case in writing, in respect of any material Taxes, Tax Returns or other Tax matters of or with respect to any Acquired Corporation. No deficiency or adjustment of material Taxes has been asserted in writing as a result of any examination, audit or other Legal Proceeding by any Governmental Body that has not been paid or accrued for in the most recent balance sheet included in the Company SEC Documents in accordance with GAAP and contested in good faith and in accordance with applicable Legal Requirements. No unresolved written claim has been received by any Acquired Corporation from any Governmental Body in any jurisdiction where such Acquired Corporation does not file Tax Returns that such Acquired Corporation is or may be subject to Taxes in that jurisdiction.

(e) No Acquired Corporation (i) is or has been a member of any affiliated, consolidated, combined, unitary or similar group for purposes of filing Tax Returns or paying Taxes (other than a group the common parent of which is or was the Company, another Acquired Corporation, or Parent), and (ii) has any liability for the Taxes of any other Person (other than the Acquired Corporations or Parent) under Section 1.1502-6 of the Treasury Regulations (or any similar or analogous provision of state, local or non-U.S. law), as a transferee or successor, by contract or otherwise (other than pursuant to customary Tax gross-up or similar provisions contained in commercial agreements entered into in the ordinary course of business consistent with past practice and not primarily relating to Taxes). No Acquired Corporation is required to make any payments after the date of this Agreement in respect of any Taxes imposed under Section 965 of the Code.

(f) None of the Acquired Corporations have been either a “distributing corporation” or a “controlled corporation” in any distribution intended to qualify for tax-free treatment under Section 355(a) of the Code either (i) during the two (2)-year period ending on the Closing Date, or (ii) in a distribution which could otherwise constitute part of a “plan” or “series of related transactions” (within the meaning of Section 355(e) of the Code) in connection with the transactions contemplated by this Agreement.

(g) No Acquired Corporation has participated in any “listed transaction” within the meaning of Treasury Regulations Section 1.6011-4(b)(2) (or any analogous or similar provision of state, local or non-U.S. law).

(h) The Acquired Corporations will not be required to include any item of income in, or exclude any item of deduction from, the computation of taxable income for any taxable period (or portion thereof) ending after the Closing Date, as a result of any (i) change in or improper use of any method of accounting prior to the Closing, (ii) “closing agreement” as described in Section 7121 of the Code (or any corresponding or similar provision of state, local or non-U.S. income Tax law) executed prior to the Closing, (iii) installment sale or open transaction disposition made prior to the Closing, (iv) prepaid amount received or deferred

revenue accrued prior to the Closing, (v) intercompany transaction consummated or excess loss account existing on or prior to the Closing Date, in either case described in the Treasury Regulations under Section 1502 of the Code (or any corresponding or similar provision of state, local or non-U.S. Tax law) or (vi) election under Section 108(i) of the Code (or any corresponding or similar provision of any state, local or non-U.S. Tax law) made prior to the Closing.

(i) No Acquired Corporation is party to or bound by any agreement or arrangement with any Person other than Parent or another Acquired Corporation relating to the apportionment, sharing, assignment, indemnification or allocation of any Tax or Tax asset, other than Tax gross-up or similar provisions contained in commercial agreements entered into in the ordinary course of business consistent with past practice and not primarily relating to Taxes.

(j) There are no material Encumbrances with respect to Taxes upon any of the assets or properties of any Acquired Corporation, other than with respect to Taxes that are (i) not yet due and payable or (ii) currently being contested in good faith through appropriate proceedings and for which adequate reserves have been established, in accordance with GAAP, on the most recent balance sheet included in the Company SEC Documents.

Notwithstanding anything to the contrary herein and regardless of what may be reported on any Tax Returns, the Company makes no representation regarding (i) the amount of any net operating losses, Tax credit, or charitable contribution carryovers that are available to it or have been reported by an Acquired Corporation for any federal, state or other Tax purposes, or (ii) any limitation on use by an Acquired Corporation of any net operating losses, Tax credit, or charitable contribution carryovers that might apply either before or after the Effective Time under Code Section 382 or any other applicable limitations under any Legal Requirement.

3.16 Employee Matters; Benefit Plans.

(a) Neither the Company nor any of its Subsidiaries is a party to any collective bargaining agreement or other Contract with a labor organization representing any of its employees. Since the IPO Date, there has not been any strike, lockout, labor dispute or union organizing activity, or any threat thereof, by any current or former employees of the Company or its Subsidiaries with respect to their employment with the Company or its Subsidiaries. Since the IPO Date, the Company and each of its Subsidiaries has complied with all applicable Legal Requirements related to employment and employment practices, including terms and conditions of employment, wages and hours, discrimination, employee classification, workers' compensation, family and medical leave, immigration and occupational safety and health requirements, and no Legal Proceedings are pending or, to the knowledge of the Company, threatened against any Acquired Corporation with respect to the foregoing, in each case, except as would not reasonably be expected to have a Material Adverse Effect. Except as would not reasonably be expected to have a Material Adverse Effect, each individual who renders services to any Acquired Corporation who is classified as an independent contractor, consultant or other non-employee status for any purpose (including for purposes of taxation and Tax reporting and under Employee Plans) is properly so characterized.

(b) Section 3.16(b) of the Company Disclosure Schedule sets forth an accurate and complete list of each material Employee Plan (other than health and welfare plans, which nevertheless constitute Employee Plans) and each individual employment agreement providing for severance and each individual severance agreement. To the extent applicable, the Company has either delivered or made available to Parent prior to the execution of this Agreement with respect to each material Employee Plan accurate and complete copies of: (i) all plan documents and all amendments thereto, and all related trust or other funding documents, and in the case of unwritten material Employee Plans, written descriptions thereof, (ii) all determination letters, rulings, opinion letters, information letters or advisory opinions issued by the IRS or the United States Department of Labor (“DOL”), (iii) the most recent summary plan descriptions and any material modifications thereto, (iv) the Form 5500 filed with the DOL for the last plan year, (v) the most recently prepared financial statements or actuarial reports and (vi) any other material correspondence with a Governmental Body since the IPO Date.

(c) Neither the Company nor any other Person that would be or, at any relevant time following the IPO Date, would have been considered a single employer with the Company under the Code or ERISA (other than Parent) has ever maintained, contributed to, or been required to contribute to, or otherwise incurred any material liability with respect to, (i) a plan subject to Title IV or Section 302 of ERISA or Code Section 412 or 4971, including any “single employer” defined benefit plan or any “multiemployer plan,” each as defined in Section 4001 of ERISA, or (ii) a plan that has two (2) or more contributing sponsors at least two (2) of whom are not under common control, within the meaning of Section 4063 of ERISA.

(d) Each of the Employee Plans that is intended to be qualified under Section 401(a) of the Code has obtained a favorable determination letter (or opinion letter, if applicable) as to its qualified status under the Code and there are no circumstances or events that would reasonably be expected to cause the loss of the qualified status of any such Employee Plan. Except as would not reasonably be expected to have a Material Adverse Effect: (i) each of the Employee Plans has been operated in compliance in all respects with its terms and all applicable Legal Requirements, including, but not limited to, ERISA and the Code; (ii) there are no pending or, to the knowledge of the Company, threatened Legal Proceedings against or with respect to any Employee Plan (other than routine claims for benefits in the ordinary course of business consistent with past practice), and, to the knowledge of the Company, no set of circumstances exists that may reasonably give rise to a material Legal Proceeding against an Employee Plan, any fiduciaries thereof with respect to such Employee Plan or the assets of any related trusts; (iii) no Employee Plan is under audit or the subject of an investigation by the IRS, the DOL, the Pension Benefit Guaranty Corporation, the SEC or any other Governmental Body, nor is any such audit or investigation pending or, to the knowledge of the Company, threatened; and (iv) all contributions required to be made to any Employee Plan, by applicable Legal Requirements or otherwise, and all premiums due or payable with respect to insurance policies funding any Employee Plan, have been timely made or paid in full or, to the extent not required to be made or paid on or before the date of this Agreement, have been fully reflected on the financial statements of the Company in accordance with GAAP (to the extent required by GAAP).

(e) Except to the extent required under Section 601 et seq. of ERISA or 4980B of the Code (or any other similar state or local Legal Requirement) or pursuant to an employment, severance or other Employee Plan listed on Section 3.16(b) of the Company

Disclosure Schedule, neither the Company nor any Employee Plan has any present or future obligation to provide material post-employment welfare benefits to or make any payment to, or with respect to, any present or former employee, officer, director or other service provider of the Company or its Subsidiaries pursuant to any retiree medical benefit plan or other retiree welfare plan.

(f) Except as provided in Section 2.8, the consummation of the Transactions (including in combination with other events or circumstances that on their own would not result in any entitlement to payment) will not (i) entitle any current or former employee, director, officer, independent contractor or other service provider of the Company or its Subsidiaries to severance pay or any other material payment or benefit, (ii) accelerate the time of payment, vesting or exercisability, or materially increase the amount of, compensation or benefits due to any such employee, director, officer, independent contractor or other service provider, or (iii) directly or indirectly cause the Company or its Subsidiaries to transfer or set aside any assets to fund any compensation or benefits under any Employee Plan.

(g) No Employee Plan provides for the gross-up or reimbursement of Taxes incurred pursuant to Section 4999 or 409A of the Code.

3.17 Environmental Matters.

(a) The Acquired Corporations are and have been since the IPO Date in compliance in all material respects with all applicable Environmental Laws, which compliance includes obtaining, maintaining or complying with all Governmental Authorizations required under Environmental Laws for the operation of their business.

(b) As of the date of this Agreement, there is no material Legal Proceeding relating to or arising under any Environmental Law that is pending or, to the knowledge of the Company, threatened against any Acquired Corporation or in respect to any Material Leased Real Property.

(c) No Acquired Corporation has received any written notice, report or other information of or entered into any legally binding agreement, order, settlement, judgment, injunction or decree involving uncompleted, outstanding or unresolved material violations, liabilities or requirements on the part of any Acquired Corporation relating to or arising under Environmental Laws.

(d) To the knowledge of the Company there are and have been no Hazardous Materials present or Releases on, at, under or from any property or facility, including the Material Leased Real Property, in a manner and concentration that would reasonably be expected to result in any material claim against or liability of an Acquired Corporation under any Environmental Law.

(e) No Acquired Corporations has assumed, undertaken, or otherwise become subject to any material liability of another Person relating to Environmental Laws.

3.18 Insurance. The Acquired Corporations maintain insurance coverage in such amounts and covering such risks as are in accordance in all material respects with normal

industry practice for companies of similar size and stage of development. To the Company's knowledge, all such insurance policies are in full force and effect, no notice of cancellation or material modification has been received (other than a notice in connection with ordinary renewals), and there is no existing material default or event which, with the giving of notice or lapse of time or both, would constitute a material default, by any insured thereunder, except as would not reasonably be expected to have a Material Adverse Effect. As of the date of this Agreement, there is no material claim pending under any of the Company's insurance policies as to which coverage has been questioned, denied or disputed by the underwriters of such policies, except as would not reasonably be expected to have, a Material Adverse Effect.

3.19 Legal Proceedings; Orders.

(a) As of the date of this Agreement, there is no Legal Proceeding pending and served (or, to the knowledge of the Company, pending and not served or threatened), against the Company, except as has not, and would not reasonably be expected to, individually or in the aggregate, materially impair, prevent or materially delay the Company's ability to consummate the Transactions. Except for Legal Proceedings of the type described in the prior sentence, there are no material Legal Proceedings pending and served (or, to the knowledge of the Company, pending and not served or threatened) against any Acquired Corporation or, to the knowledge of the Company, against any present or former officer, director or employee of an Acquired Corporation in such individual's capacity as such.

(b) To the Company's knowledge, there is no material order, writ, injunction or judgment to which an Acquired Corporation is subject.

(c) To the Company's knowledge, no material investigation or review by any Governmental Body with respect to an Acquired Corporation is pending or is being threatened.

3.20 Authority; Binding Nature of Agreement; No Vote.

(a) The Company has all requisite corporate power and authority to execute and deliver and to perform its obligations under this Agreement and to consummate the Transactions.

(b) The Affiliate Transactions Committee of the Board of Directors (the "Special Committee") has been duly authorized and constituted in accordance with the certificate of incorporation and bylaws of the Company. Prior to the execution and delivery of this Agreement, at a meeting duly called, convened and held in accordance with the certificate of incorporation and bylaws of the Company, the Special Committee (i) determined that this Agreement and the Transactions, including the Offer and the Merger, are fair to, and in the best interest of, the Company and its stockholders (other than Parent and its Affiliates), (ii) declared it advisable to enter into this Agreement, and (iii) recommended to the Board of Directors the execution, delivery and performance by the Company of this Agreement and the consummation of the Transactions, including the Offer and the Merger, (the preceding clauses (i) through (iii), the "Special Committee Recommendation") which resolutions, subject to Section 6.1, have not been subsequently amended, withdrawn or modified.

(c) Prior to the execution and delivery of this Agreement, at a meeting duly called, convened and held in accordance with the certificate of incorporation and bylaws of the Company, the Board of Directors (i) determined that this Agreement and the Transactions, including the Offer and the Merger, are fair to, and in the best interest of, the Company and its stockholders (other than Parent and its Affiliates), (ii) declared it advisable to enter into this Agreement, (iii) approved the execution, delivery and performance by the Company of this Agreement and the consummation of the Transactions, including the Offer and the Merger, (iv) resolved that the Merger shall be effected under Section 251(h) of the DGCL, (v) resolved to recommend that the stockholders of the Company (other than Parent and its Affiliates) tender their Shares to Purchaser pursuant to the Offer (the preceding clauses (i) through (v), the “Company Board Recommendation”) and (vi) resolved to include the Company Board Recommendation and the Special Committee Recommendation in the Schedule 14D-9 and the Company Schedule 13E-3 when filed with the SEC and disseminated to the Company’s stockholders, which resolutions, subject to Section 6.1, have not been subsequently amended, withdrawn or modified.

(d) This Agreement has been duly executed and delivered by the Company, and assuming due authorization, execution and delivery by Parent and Purchaser, this Agreement constitutes the legal, valid and binding obligation of the Company and is enforceable against the Company in accordance with its terms, except as such enforcement may be subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors’ rights, and by general equitable principles. Assuming satisfaction of the Minimum Condition, no vote of any holders of any shares of capital stock of the Company, including any holders of Shares, is necessary to authorize or adopt this Agreement or to consummate the Transactions.

3.21 Takeover Laws. The Board of Directors has taken and will take all actions so that the restrictions applicable to business combinations contained in Section 203 of the DGCL and any other Takeover Law are, and will be, to the extent such restrictions can be rendered inapplicable by action of the Board of Directors under Legal Requirements, inapplicable to the execution, delivery and performance of this Agreement and to the consummation of the Offer, the Merger and the other Transactions.

3.22 Non-Contravention; Consents.

(a) Assuming compliance with the applicable provisions of the DGCL and the rules and regulations of the SEC and Nasdaq, the execution and delivery of this Agreement by the Company and the consummation of the Transactions will not: (i) cause a violation of any of the provisions of the certificate of incorporation or bylaws (or other organizational documents) of any Acquired Corporation; (ii) cause a violation by any Acquired Corporation of any Legal Requirement or order applicable to an Acquired Corporation, or to which an Acquired Corporation is subject; (iii) require any consent or notice under, conflict with, result in breach of, or constitute a default under (or an event that with notice or lapse of time or both would become a default), or give rise to any right of purchase, termination, amendment, cancellation, acceleration or other adverse change of any right or obligation or the loss of any benefit to which an Acquired Corporation is entitled under any provision of any Material Contract; or (iv) result in an Encumbrance (other than a Permitted Encumbrance) on any of the property or assets of any

Acquired Corporation, except in the case of clauses (ii), (iii) and (iv), as would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(b) Except for the filing of the certificate of merger with the Secretary of State of the State of Delaware or as may be required by the Exchange Act (including the filing with the SEC of the Schedule 14D-9, the Company Schedule 13E-3 and such reports under the Exchange Act as may be required in connection with this Agreement and the Transactions), the DGCL and the rules and regulations of the SEC and Nasdaq, the Acquired Corporations are not required to give notice to, make any filing with, or obtain any Consent from any Governmental Body at any time prior to the Closing in connection with the execution and delivery of this Agreement by the Company, or the consummation by the Company of the Merger or the other Transactions, except those that the failure to make or obtain as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

3.23 Opinion of Financial Advisors. The Special Committee has received the opinion of Cowen and Company, LLC to the effect that, as of the date of such opinion, and based upon and subject to the various assumptions made, procedures followed, matters considered and limitations on the review undertaken in preparing such opinion as set forth therein, the consideration consisting of \$18.15 per Share to be received by the holders of Shares (other than Parent, its Affiliates, their respective directors and executive officers, and the other affiliated Persons listed on Exhibit B, and holders of Dissenting Shares) in the Offer and the Merger pursuant to this Agreement is fair, from a financial point of view, to such holders, and such opinion has not been withdrawn or modified. The Company will make available to Parent solely for informational purposes and on a non-reliance basis, a signed copy of such opinion as soon as possible following the date of this Agreement.

3.24 Brokers and Other Advisors. Except for Cowen and Company, LLC, no broker, finder, investment banker, financial advisor or other Person is entitled to any brokerage, finder's, financial advisor's or other similar fee or commission, or the reimbursement of expenses in connection therewith, in connection with the Transactions based upon arrangements made by or on behalf of the Company.

SECTION 4

REPRESENTATIONS AND WARRANTIES OF PARENT AND PURCHASER

Parent and Purchaser represent and warrant to the Company as follows:

4.1 Due Organization. Each of Parent and Purchaser is a corporation or other Entity duly organized, validly existing and, except as would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect, in good standing under the laws of its jurisdiction of organization and has all necessary power and authority: (a) to conduct its business in the manner in which its business is currently being conducted; and (b) to own and use its assets in the manner in which its assets are currently owned and used, except where the failure does not have, and would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

4.2 Purchaser. Purchaser was formed solely for the purpose of engaging in the Transactions and activities incidental thereto and has not engaged, and prior to the Effective Time will not engage, in any business activities or conducted any operations other than in connection with the Transactions and those incident to Purchaser's formation. Either Parent or a wholly owned Subsidiary of Parent owns beneficially and of record all of the outstanding capital stock of Purchaser, free and clear of all Encumbrances and transfer restrictions, except for Encumbrances or transfer restrictions of general applicability as may be provided under the Securities Act or applicable securities laws.

4.3 Authority; Binding Nature of Agreement. Parent and Purchaser have the corporate power and authority to execute and deliver and perform their obligations under this Agreement and to consummate the Transactions. The boards of directors of Parent and Purchaser have each approved the execution, delivery and performance by Parent and Purchaser of this Agreement and the consummation of the Transactions, including the Offer and the Merger. This Agreement has been duly executed and delivered by Parent and Purchaser, and assuming due authorization, execution and delivery by the Company, this Agreement constitutes the legal, valid and binding obligation of Parent and Purchaser and is enforceable against Parent and Purchaser in accordance with its terms, except as such enforcement may be subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights, and by general equitable principles.

4.4 Non-Contravention; Consents.

(a) Assuming compliance with the applicable provisions of the DGCL, the execution and delivery of this Agreement by Parent and Purchaser, and the consummation of the Transactions, will not: (i) cause a violation of any of the provisions of the certificate of incorporation or bylaws (or other organizational documents) of Parent or Purchaser; (ii) cause a violation by Parent or Purchaser of any Legal Requirement or order applicable to Parent or Purchaser, or to which Parent or Purchaser are subject; or (iii) require any consent or notice under, conflict with, result in breach of, or constitute a default under (or an event that with notice or lapse of time or both would become a default), or give rise to any right of purchase, termination, amendment, cancellation, acceleration or other adverse change of any right or obligation or the loss of any benefit to which Parent or Purchaser is entitled under any provision of any Contract, except in the case of clauses (ii) and (iii), as would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

(b) Except for the filing of the certificate of merger with the Secretary of State of the State of Delaware or as may be required by the Exchange Act (including the filing with the SEC of the Offer Documents and the Parent Schedule 13E-3), Takeover Laws, the DGCL and the applicable rules and regulations of the SEC and Nasdaq, neither Parent nor Purchaser, nor any of Parent's other Affiliates, is required to give notice to, make any filing with or obtain any Consent from any Governmental Body at any time prior to the Closing in connection with the execution and delivery of this Agreement by Parent or Purchaser, or the consummation by Parent or Purchaser of the Offer, the Merger or the other Transactions, except those that the failure to make or obtain as would not, individually or in the aggregate, have or reasonably be expected to have a Parent Material Adverse Effect. No vote of Parent's or Purchaser's stockholders is

necessary to approve this Agreement or any of the Transactions (except in the case of Purchaser as has previously been obtained).

4.5 Disclosure. None of the Offer Documents or the Parent Schedule 13E-3 will contain any untrue statement of a material fact or omit to state any 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. None of the information with respect to Parent or Purchaser supplied or to be supplied by or on behalf of Parent or Purchaser or any of their Subsidiaries specifically for inclusion or incorporation by reference in the Schedule 14D-9 or the Company Schedule 13E-3 will (a) at the time such document is filed with the SEC, (b) at any time such document is amended or supplemented or (c) at the time such document is first published, sent or given to the Company's stockholders, contain any untrue statement of a material fact or omit to state any 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. For clarity, the representations and warranties in this Section 4.5 will not apply to statements or omissions included or incorporated by reference in the Offer Documents, the Parent Schedule 13E-3, the Schedule 14D-9 or the Company Schedule 13E-3 based upon information supplied to Parent by the Company or any of its Representatives on behalf of the Company specifically for inclusion therein.

4.6 Absence of Litigation. As of the date of this Agreement, there is no Legal Proceeding pending and served or, to the knowledge of Parent, pending and not served, against Parent or Purchaser, except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect. To the knowledge of Parent or Purchaser, as of the date of this Agreement, neither Parent nor Purchaser is subject to any continuing order of, consent decree, settlement agreement or similar written agreement with, or continuing investigation by, any Governmental Body, or any order, writ, judgment, injunction, decree, determination or award of any Governmental Body, except as has not had, and would not reasonably be expected to have, individually or in the aggregate, a Parent Material Adverse Effect.

4.7 Funds. As of the date of this Agreement and at all times through the Effective Time, Parent has (and will make available to Purchaser in a timely manner) available funds in an amount sufficient to consummate the Transactions by payment in cash of the aggregate Offer Price payable promptly following the Offer Acceptance Time, the aggregate Merger Consideration payable following the Effective Time and the aggregate amounts payable to holders of Company Options and Company RSUs following the Effective Time pursuant to Sections 2.8(a) and 2.8(c).

4.8 Acknowledgment by Parent and Purchaser.

(a) Neither Parent nor Purchaser is relying and neither Parent nor Purchaser has relied on any representations or warranties whatsoever regarding the Transactions or the subject matter of this Agreement, express or implied, except for the representations and warranties in Section 3, including the Company Disclosure Schedule. Such representations and warranties by the Acquired Corporations constitute the sole and exclusive representations and warranties of the Acquired Corporations in connection with the Transactions and each of Parent

and Purchaser understands, acknowledges and agrees that all other representations and warranties of any kind or nature whether express, implied or statutory are specifically disclaimed by the Acquired Corporations.

(b) In connection with the consideration by Parent and Purchaser of the Transaction, Parent and Purchaser and their respective Affiliates, stockholders or Representatives may have reviewed and may continue to review after the date hereof certain estimates, projections, forecasts and other forward-looking information, as well as certain business plan information, regarding the Acquired Corporations and their respective businesses and operations. Parent and Purchaser hereby acknowledge that there are uncertainties inherent in attempting to make such estimates, projections, forecasts and other forward-looking statements, as well as in such business plans, and that Parent and Purchaser will have no claim against the Acquired Corporations, or any of their respective Affiliates, stockholders or Representatives, or any other Person with respect thereto unless any such information is expressly included in a representation or warranty contained in this Agreement. Accordingly, Parent and Purchaser hereby acknowledge and agree that neither the Acquired Corporations nor any of their respective Affiliates, stockholders or Representatives, nor any other Person, has made or is making any express or implied representation or warranty with respect to such estimates, projections, forecasts, forward-looking statements or business plans unless any such information is expressly included in a representation or warranty contained in this Agreement.

4.9 Brokers and Other Advisors. Except for Goldman Sachs & Co. LLC and Stifel, Nicolaus & Company, Incorporated, no broker, finder, investment banker, financial advisor or other Person is entitled to any brokerage, finder's, financial advisor's or other similar fee or commission, or the reimbursement of expenses in connection therewith, in connection with the Transactions based upon arrangements made by or on behalf of Parent, Purchaser, or any of their respective Subsidiaries, except for Persons, if any, whose fees and expenses shall be paid by Parent or Purchaser.

4.10 Ownership of Shares. As of the date hereof, Parent, its Subsidiaries and its Affiliates (for the avoidance of doubt, excluding the individual directors and officers of Parent and its Subsidiaries) collectively beneficially own, and will beneficially own immediately prior to the Offer Acceptance Time, 77,094,682 Shares.

SECTION 5

CERTAIN COVENANTS OF THE COMPANY

5.1 Access and Investigation. During the period from the date of this Agreement until the earlier of the Effective Time and the termination of this Agreement pursuant to Section 8 (the "Pre-Closing Period"), upon reasonable advance notice to the Company, the Acquired Corporations shall, and shall cause the respective Representatives of the Acquired Corporations to provide Parent and Parent's Representatives with reasonable access during normal business hours of the Company to the Company's designated Representatives and assets and to all existing books, records, documents and information relating to the Acquired Corporations, and promptly provide Parent and Parent's Representatives with all reasonably requested information regarding the business of the Acquired Corporations and such additional financial, operating and

other data and information regarding the Acquired Corporations, as Parent may reasonably request, in each case for any reasonable business purpose related to the consummation of the Transaction; *provided, however*, that any such access shall be conducted at Parent's out-of-pocket expense with supervision of appropriate personnel of the Acquired Corporations where applicable and in such a manner as not to unreasonably interfere with the normal operation of the business of the Acquired Corporations. Nothing herein shall require any of the Acquired Corporations to disclose any information to Parent if such disclosure would, in the Company's reasonable discretion and after notice to Parent (i) jeopardize any attorney-client or other legal privilege (so long as the Acquired Corporations have reasonably cooperated with Parent to permit such inspection of or to disclose such information on a basis that does not waive such privilege with respect thereto), (ii) contravene any applicable Legal Requirement (so long as the Acquired Corporations have reasonably cooperated with Parent to permit disclosure to the extent permitted by Legal Requirements) or (iii) violate any of its or its Affiliates' respective confidentiality obligations (so long as the Acquired Corporations have reasonably cooperated with Parent to permit disclosure to the extent permitted by such confidentiality obligations). With respect to the information disclosed pursuant to this Section 5.1, Parent shall comply with, and shall instruct Parent's Representatives to comply with, all of its obligations under the letter agreement, effective as of July 17, 2020, between the Company and Parent (the "Confidentiality Agreement").

5.2 Operation of the Acquired Corporations' Business. During the Pre-Closing Period, except (w) as required or permitted under this Agreement or as required by applicable Legal Requirements, (x) with the written consent of Parent (such consent not to be unreasonably withheld, delayed or conditioned) or as caused by Parent or its Affiliates, or (y) as set forth in Section 5.2 of the Company Disclosure Schedule:

(a) the Company shall, and shall cause each Acquired Corporation to, use reasonable best efforts to conduct its business in the ordinary course consistent in all material respects with past practice (other than in connection with this Agreement), and use its reasonable best efforts to preserve intact its business and material relationships with third parties; and

(b) the Acquired Corporations shall not:

(i) (1) establish a record date for, declare, set aside or pay any dividend or make any other distribution in respect of any shares of an Acquired Corporation's capital stock or equity interests (including the Shares), or (2) repurchase, redeem or otherwise reacquire any Acquired Corporation's capital stock or equity interests (including Shares) or any rights, warrants or options to acquire any of such capital stock or equity interests, other than: (A) repurchases of Shares outstanding as of the date of this Agreement pursuant to the Company's right (under written commitments in effect as of the date of this Agreement) to purchase Shares held by a Company Associate only upon termination of such Person's employment or engagement by the Company; (B) in connection with withholding to satisfy the exercise price and/or Tax obligations with respect to Company Options or Company RSUs pursuant to the terms thereof (as in effect as of the date of this Agreement); or (C) between the Company and a wholly owned Acquired Corporation or between wholly owned Acquired Corporations;

(ii) split, combine, subdivide or reclassify any shares of capital stock or equity interests of any Acquired Corporation;

(iii) sell, issue, grant, deliver, pledge, transfer, encumber or authorize the sale, issuance, grant, delivery, pledge, transfer or encumbrance of (A) any capital stock, equity interest or other security, (B) any option, call, warrant, restricted securities or right to acquire any capital stock, equity interest or other security, or (C) any instrument convertible into or exchangeable for any capital stock, equity interest or other security (except that the Company may issue Shares as required to be issued upon the exercise of Company Options and vesting of Company RSUs outstanding as of the date of this Agreement, pursuant to the terms thereof (as in effect on the date hereof), or issuable to participants in the Company ESPP in accordance with the terms thereof);

(iv) except as contemplated by Section 2.8, Section 6.3(d) or Section 6.4 or as required under the terms of any Employee Plan as in effect on the date of this Agreement (A) establish, adopt, terminate or materially amend any Employee Plan (or any plan, program, arrangement or agreement that would be an Employee Plan if it were in existence on the date of this Agreement) or any collective bargaining agreement or other agreement with a labor organization, or accelerate the payment or vesting of compensation or benefits under, any Employee Plans, (B) grant or agree to grant any current or former employee, director or other service provider any increase in severance, compensation, bonuses or other benefits, (C) cause the funding of any rabbi trust or similar arrangement or take any action to fund or in any other way secure the payment of compensation or benefits, (D) grant or pay any bonuses or other awards or accelerate the payment, vesting of or lapse of restrictions with respect to any incentive compensation or (E) hire or promote any person (except that the any hiring or promotion that (1) is consistent with the Company's past practice and is contemplated in the Company's hiring budget made available to Parent prior to the date of this Agreement and (2) is not for an executive officer position, which shall be permitted) or terminate, other than for cause, the employment of any person;

(v) amend their certificates of incorporation or bylaws or other charter or organizational documents;

(vi) form any Subsidiary, acquire any equity interest in any other Entity or enter into any material joint venture, partnership or similar arrangement;

(vii) make or authorize any capital expenditures, other than capital expenditures (x) that do not exceed \$100,000 individually or in the aggregate or (y) in accordance with the Company's operating budget made available to Parent prior to the date of this Agreement;

(viii) acquire, lease, in-license, out-license, sublicense, pledge, sell or otherwise dispose of, divest or spin-off, abandon, waive, covenant not to assert, relinquish or permit to lapse (other than any Patent expiring at the end of its statutory term and not capable of being extended), transfer or assign any material right or other material asset or property (including any Intellectual Property Rights) (except (A) in the ordinary course of business consistent with past practice (including entering into clinical trial agreements and material

transfer agreements in the ordinary course of business consistent with past practice), (B) pursuant to dispositions of obsolete, surplus or worn out assets that are no longer useful in the conduct of the business of the Acquired Corporations or (C) capital expenditures permitted by clause (vii) of this Section 5.2(b));

(ix) lend money or make capital contributions or advances to or make investments in, any Person, or incur or guarantee any Indebtedness (except for advances to employees and consultants for travel and other business related expenses in the ordinary course of business consistent with past practice and in material compliance with the Company's policies related thereto), other than between the Company and a wholly owned Acquired Corporation or between wholly owned Acquired Corporations;

(x) (1) amend, modify or waive any rights under, exercise any option to renew or extend the term of, or voluntarily terminate any Real Property Lease, (2) amend, modify or waive any rights under, in any material respect, or voluntarily terminate, any other Material Contract, or (3) enter into any (A) lease or sublease for real property or (B) Contract which, if in effect on the date hereof, would constitute a Material Contract;

(xi) (1) adopt or make any material change to any material Tax accounting method or change the annual accounting period used for Tax purposes of any material Acquired Corporation; (2) make, rescind or amend any material Tax election; (3) file a material amended Tax Return or file a claim for a refund of material Taxes; (4) enter into a "closing agreement" within the meaning of Section 7121 of the Code (or any corresponding or similar provision of any state, local or non-U.S. Tax law) with any Governmental Body regarding any material Tax refund, liability or assessment; (5) request any Tax ruling from any Governmental Body; (6) settle, compromise or consent to any material Tax claim, audit or assessment or surrender a right to a material Tax refund; (7) except in the ordinary course of business consistent with past practice in connection with filing Tax Returns, agree to waive or extend the statute of limitations with respect to any material Tax or material Tax Return; or (8) enter into any Tax allocation, indemnity or sharing agreement;

(xii) settle, release, waive or compromise any Legal Proceeding or other claim (or threatened Legal Proceeding or other claim), other than any settlement, release, waiver or compromise that (A) results solely in monetary obligations involving only the payment of monies by the Acquired Corporations of not more than \$5,000,000 in the aggregate (excluding monetary obligations that are funded by an indemnity obligation to, or an insurance policy of, any Acquired Corporations) or (B) results in no monetary or other material non-monetary obligation of any Acquired Corporation; *provided* that the settlement, release, waiver or compromise of any Legal Proceeding or claim brought by any stockholders of the Company against the Company and/or its directors relating to the Transactions or a breach of this Agreement shall not be subject to this clause;

(xiii) enter into any collective bargaining agreement or other agreement with any labor organization;

(xiv) adopt or implement any stockholder rights plan or similar arrangement;

(xv) adopt a plan or agreement of complete or partial liquidation or dissolution, merger, consolidation, restructuring, recapitalization or other reorganization of any of the Acquired Corporations;

(xvi) relinquish, abandon or permit to lapse, or fail to take any action necessary to maintain, enforce and protect, any of its material Intellectual Property Rights;

(xvii) fail to maintain in full force and effect material insurance policies covering the Acquired Corporations and their material properties, business, assets and operations in a form and amount consistent with past practice in all material respects; or

(xviii) enter into any new agreement in respect of an investigator-sponsored study, or, in any material respect, amend, modify or waive any agreement in respect of an investigator-sponsored study;

(xix) authorize any of, or agree or commit to take, any of the actions described in the foregoing clauses (i) through (xviii) of this Section 5.2(b).

5.3 No Solicitation.

(a) For the purposes of this Agreement, “Acceptable Confidentiality Agreement” means any customary confidentiality agreement that (i) contains provisions that are not materially less favorable to the Company in the aggregate than those contained in the Confidentiality Agreement and (ii) does not prohibit the Company from providing any information to Parent in accordance with this Section 5.3.

(b) Except as permitted by this Section 5.3, during the Pre-Closing Period the Acquired Corporations shall not, and shall use reasonable best efforts to cause their officers, directors and employees not to, and shall direct their other Representatives not to, (i) continue any solicitation, knowing encouragement, discussions or negotiations with any Persons that may be ongoing with respect to an Acquisition Proposal or (ii) (A) solicit, initiate or knowingly facilitate or knowingly encourage (including by way of furnishing non-public information) any inquiries regarding, or the making of any proposal or offer that constitutes, or would reasonably be expected to lead to, an Acquisition Proposal, (B) engage in, continue or otherwise participate in any discussions or negotiations regarding, or furnish to any other Person any non-public information in connection with, or for the purpose of soliciting or knowingly encouraging or facilitating, an Acquisition Proposal or any proposal or offer that would reasonably be expected to lead to an Acquisition Proposal or (C) enter into any letter of intent, acquisition agreement, agreement in principle or similar agreement with respect to an Acquisition Proposal or any proposal or offer that would reasonably be expected to lead to an Acquisition Proposal; As promptly as reasonably practicable (and in any event within two (2) business days) following the date hereof, the Company shall request the prompt return or destruction (to the extent provided for by the applicable confidentiality agreement) of all non-public information previously furnished to any Person (other than Parent) that has, within the one (1)-year period prior to the date of this Agreement, made or indicated an intention to make an Acquisition Proposal.

(c) If at any time on or after the date of this Agreement and prior to the Offer Acceptance Time any Acquired Corporation or any of their Representatives receives an unsolicited *bona fide* written Acquisition Proposal from any Person or group of Persons, which Acquisition Proposal was made or renewed on or after the date of this Agreement and did not result from a material breach of this Section 5.3, (i) the Company and its Representatives may contact such Person or group of Persons solely to clarify the terms and conditions thereof and (ii) if the Board of Directors or the Special Committee determines in good faith, after consultation with financial advisors and outside legal counsel, that such Acquisition Proposal constitutes or could reasonably be expected to lead to a Superior Offer, then the Company and its Representatives may (x) furnish, pursuant to an Acceptable Confidentiality Agreement, information (including non-public information) with respect to the Acquired Corporations to the Person or group of Persons who has made such Acquisition Proposal; *provided* that the Company shall as promptly as practicable (and no later than within 24 hours) provide to Parent any non-public information concerning the Acquired Corporations that is provided to any Person to the extent access to such information was not previously provided to Parent or its Representatives, and (y) engage in or otherwise participate in discussions or negotiations with the Person or group of Persons making such Acquisition Proposal.

(d) During the Pre-Closing Period, the Company shall (i) promptly (and in any event within 24 hours) notify Parent if any inquiries, proposals or offers with respect to an Acquisition Proposal are received by an officer or director of the Company and provide to Parent a copy of any written Acquisition Proposal (including any proposed term sheet, letter of intent, acquisition agreement or similar agreement with respect thereto) and a summary of any material unwritten terms and conditions thereof, and (ii) keep Parent reasonably informed of any material developments, discussions or negotiations regarding any Acquisition Proposal on a prompt basis (and in any event within 24 hours of such material development, discussion or negotiation).

(e) Nothing in this Section 5.3 or elsewhere in this Agreement shall prohibit the Company from (i) taking and disclosing to the stockholders of the Company a position contemplated by Rule 14e-2(a), Rule 14d-9 or Item 1012(a) of Regulation M-A promulgated under the Exchange Act, including any “stop, look and listen” communication pursuant to Rule 14d-9(f) promulgated under the Exchange Act, or (ii) making any disclosure to the stockholders of the Company that is required by applicable Legal Requirements.

(f) The Company agrees that if any Acquired Corporation or any officer, director or employee of an Acquired Corporation takes any action which, if taken by the Company, would constitute a breach of this Section 5.3, the Company shall be deemed to be in breach of this Section 5.3. The Company further agrees that if any Representative of an Acquired Corporation (other than an officer, director or employee of an Acquired Corporation) takes any action which, if taken by the Company, would constitute an intentional breach of this Section 5.3, and results in a *bona fide* publicly disclosed Acquisition Proposal, the Company shall be deemed to be in breach of this Section 5.3.

5.4 Notice of Certain Events. Each of the Company and Parent shall promptly notify the other of:

- (a) any notice or other communication received by such Party from any Governmental Body in connection with this Agreement, the Offer, the Merger or the other Transactions, or from any Person alleging that the consent of such Person is required in connection with the Offer, the Merger or the other Transactions;
- (b) any Legal Proceeding commenced or, to any Party's knowledge, threatened in writing against, such Party or any of its Subsidiaries or otherwise relating to, involving or affecting such Party or any of its Subsidiaries, in each case in connection with, arising from or otherwise relating to the Offer, the Merger or the other Transactions;
- (c) the occurrence of any event, occurrence, circumstance, change or effect relating to it which would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, with respect to the Company, or a Parent Material Adverse Effect, with respect to Parent, as the case may be;
- (d) any inaccuracy of any representation or warranty of such Party contained in this Agreement at any time during the term hereof that would reasonably be expected to cause any Offer Condition not to be satisfied; or
- (e) any failure of such Party to comply with or satisfy in any material respect any covenant, condition or agreement to be complied with or satisfied by it hereunder;

provided, however, that the delivery of any notice pursuant to this Section 5.4 shall not affect the representations, warranties, covenants, agreements or obligations of the Parties hereunder or the conditions to the obligations of the Parties hereunder.

SECTION 6

ADDITIONAL COVENANTS OF THE PARTIES

6.1 Company Board Recommendation and Special Committee Recommendation.

(a) Subject to Section 6.1(b), the Company hereby consents to the inclusion of a description of the Company Board Recommendation and the Special Committee Recommendation in the Offer Documents. During the Pre-Closing Period, subject to Section 6.1(b), neither the Board of Directors nor any committee thereof (including the Special Committee) shall (i)(A) withdraw (or modify in a manner adverse to Parent or Purchaser), or publicly propose to withdraw (or modify in a manner adverse to Parent or Purchaser), the Company Board Recommendation or the Special Committee Recommendation or (B) approve, recommend or declare advisable, or publicly propose to approve, recommend or declare advisable, any Acquisition Proposal (any action described in this clause (i) being referred to as a "Company Adverse Change Recommendation") or (ii) approve, recommend or declare advisable, or publicly propose to approve, recommend or declare advisable, or allow the Company to execute or enter into any Contract with respect to any Acquisition Proposal, or requiring the Company to abandon, terminate, delay or fail to consummate, or that would

otherwise materially impede, or interfere with, the Transactions (other than an Acceptable Confidentiality Agreement).

(b) Notwithstanding anything to the contrary contained in this Agreement, at any time prior to the Offer Acceptance Time:

(i) if any Acquired Corporation has received a bona fide written Acquisition Proposal from any Person that has not been withdrawn and after consultation with outside legal counsel, the Board of Directors or the Special Committee shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer, (x) the Board of Directors or the Special Committee may make a Company Adverse Change Recommendation, or (y) provided that no Acquired Corporation is in material breach of Section 5.3 with respect to such Acquisition Proposal, the Company may terminate this Agreement pursuant to Section 8.1(e) to enter into a Specified Agreement with respect to such Superior Offer, in each case, if and only if: (A) the Board of Directors or the Special Committee determines in good faith, after consultation with outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Board of Directors or the Special Committee, respectively, to the Company's stockholders under applicable Legal Requirements; (B) the Company shall have given Parent prior written notice of its intention to make a Company Adverse Change Recommendation or terminate this Agreement pursuant to Section 8.1(e) at least five (5) days prior to making any such Company Adverse Change Recommendation or termination (a "Determination Notice") (which notice shall not constitute a Company Adverse Change Recommendation or termination) and, if desired by Parent, during such five (5)-day period shall have negotiated in good faith with respect to any revisions to the terms of this Agreement or another proposal to the extent proposed by Parent so that such Acquisition Proposal would cease to constitute a Superior Offer; and (C) (1) the Company shall have provided to Parent information with respect to such Acquisition Proposal in accordance with Section 5.3(d), (2) the Company shall have given Parent the five (5)-day period after the Determination Notice to propose revisions to the terms of this Agreement or make another proposal so that such Acquisition Proposal would cease to constitute a Superior Offer, and (3) after giving effect to the proposals made by Parent during such period, if any, after consultation with outside legal counsel, the Board of Directors or the Special Committee shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer and that the failure to make the Company Adverse Change Recommendation or terminate this Agreement pursuant to Section 8.1(e) would be inconsistent with the fiduciary duties of the Board of Directors or the Special Committee, respectively, to the Company's stockholders under applicable Legal Requirements. Issuance of any "stop, look and listen" communication by or on behalf of the Company pursuant to Rule 14d-9(f) promulgated under the Exchange Act shall not be considered a Company Adverse Change Recommendation and shall not require the giving of a Determination Notice or compliance with the procedures set forth in this Section 6.1. The provisions of this Section 6.1(b)(i) shall also apply to any material amendment to any Acquisition Proposal and require a new Determination Notice, except that the references to five (5) days shall be deemed to be three (3) days; and

(ii) in connection with an Intervening Event, the Board of Directors or the Special Committee may make a Company Adverse Change Recommendation if: (A) the Board of Directors or the Special Committee determines in good faith, after consultation with outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the

Board of Directors or the Special Committee, respectively, to the Company's stockholders under applicable Legal Requirements; (B) the Company shall have given Parent a Determination Notice at least five (5) days prior to making any such Company Adverse Change Recommendation and, if desired by Parent, during such five (5)-day period shall have negotiated in good faith with respect to any revisions to the terms of this Agreement or another proposal to the extent proposed by Parent so that a Company Adverse Change Recommendation would no longer be necessary; and (C) (1) the Company shall have specified in reasonable detail the facts and circumstances underlying the Intervening Event that render a Company Adverse Change Recommendation necessary, (2) the Company shall have given Parent the five (5)-day period after the Determination Notice to propose revisions to the terms of this Agreement or make another proposal so that a Company Adverse Change Recommendation would no longer be necessary, and (3) after giving effect to the proposals made by Parent during such period, if any, after consultation with outside legal counsel, the Board of Directors or the Special Committee shall have determined, in good faith, that the failure to make the Company Adverse Change Recommendation in response to such Intervening Event would be inconsistent with the fiduciary duties of the Board of Directors or the Special Committee, respectively, to the Company's stockholders under applicable Legal Requirements. The provisions of this Section 6.1(b)(ii) shall also apply to any material change to the facts and circumstances relating to such Intervening Event and require a new Determination Notice, except that for purposes of such subsequent Determination Notice, the references to five (5) days shall be deemed to be three (3) days.

6.2 Filings, Consents and Approvals.

(a) The Parties agree to use their respective reasonable best efforts to take promptly any and all steps necessary to avoid or eliminate each and every impediment under any Legal Requirements (including any Antitrust Laws if applicable) that may be asserted by any Governmental Body or any other party, so as to enable the Closing to occur as promptly as practicable, but in no case later than the End Date, including providing as promptly as reasonably practicable and advisable all information required by any Governmental Body.

(b) Subject to the terms and conditions of this Agreement, each of the Parties shall (and shall cause their respective Affiliates, if applicable) to cooperate with each other in determining whether, and promptly preparing and making, any other filings, notifications or other consents are required to be made with, or obtained from, any Governmental Bodies in connection with the Transactions.

6.3 Employee Benefits.

(a) During the one (1) year period following the Closing Date, Parent shall, or shall cause the Surviving Corporation or another Affiliate of Parent (including the Surviving Corporation's Subsidiaries) to, provide to each employee of the Company or any Subsidiary of the Company who is employed at the Closing and who remains employed with the Surviving Corporation or any Affiliate of Parent (including the Surviving Corporation's Subsidiaries) ("Company Employees"), for so long during such period as the Company Employee remains so employed, (i) a salary and annual bonus opportunity not less than that in effect immediately prior to the Closing and (ii) employee benefits that are no less favorable in the aggregate than either

(1) the benefits provided to such employee under the Employee Plans immediately prior to the Closing or (2) the benefits provided to similarly situated employees of Parent, and (iii) severance benefits that are no less favorable than those provided to such employee immediately prior to the Closing as disclosed on Section 6.3(a) of the Company Disclosure Schedule.

(b) Parent shall, or shall cause the Surviving Corporation or another Affiliate of Parent (including the Surviving Corporation's Subsidiaries), as applicable, to give Company Employees full credit for such Company Employees' service with the Company for purposes of eligibility, vesting, and determination of the level of benefits, and for purposes of benefit accruals, under any benefit plans made generally available to employees of Parent, the Surviving Corporation or any of their respective Affiliates in which a Company Employee participates to the same extent recognized by the Company or its applicable Affiliate immediately prior to the Closing; *provided, however*, that such service shall not be recognized to the extent that such recognition would result in a duplication of benefits with respect to the same period of service or for purposes of benefit accruals under any defined benefit plan.

(c) Parent shall, or shall cause the Surviving Corporation or an Affiliate of Parent (including the Surviving Corporation's Subsidiaries), as applicable, to (i) waive any preexisting condition limitations otherwise applicable to Company Employees and their eligible dependents under any plan of Parent or any Affiliate of Parent (including the Surviving Corporation's Subsidiaries) that provides health benefits in which Company Employees participate following the Closing, other than any limitations that were in effect with respect to such employees as of the Closing under the analogous Employee Plan, (ii) honor any deductible, co-payment and out-of-pocket maximums incurred by the Company Employees and their eligible dependents under the health plans in which they participated immediately prior to the Closing during the portion of the calendar year prior to the Closing in satisfying any deductibles, co-payments or out-of-pocket maximums under health plans of Parent, the Surviving Corporation or any of their respective Affiliates in which they are eligible to participate after the Closing in the same plan year in which such deductibles, co-payments or out-of-pocket maximums were incurred and (iii) waive any waiting period limitation or evidence of insurability requirement that would otherwise be applicable to a Company Employee and his or her eligible dependents on or after the Closing, in each case to the extent such Company Employee or eligible dependent had satisfied any similar limitation or requirement under an analogous benefit plan prior to the Closing.

(d) If requested by Parent in writing delivered to the Company not less than ten (10) business days before the Closing Date, the Board of Directors (or the appropriate committee thereof) shall adopt resolutions and take such corporate action as is necessary or appropriate to terminate the Company's 401(k) Plan (the "Company 401(k) Plan") and to vest all participant accounts thereunder, effective as of the day prior to the Closing Date, contingent upon the occurrence of the Closing. If the Company 401(k) Plan is terminated, as provided herein, Parent shall, or shall cause one of its Affiliates (including the Surviving Corporation and its Subsidiaries) to, have in effect a tax qualified defined contribution retirement plan as of the Effective Time, or as soon as administratively practicable thereafter, that includes a qualified cash or deferred arrangement within the meaning of Section 401(k) of the Code (the "Parent 401(k) Plan") in which each Company Employee who was an active participant in the Company 401(k) Plan immediately prior to the termination of the Company 401(k) Plan shall be eligible to

participate as of the Closing, and as soon as practicable following the Closing the account balances of the Company 401(k) Plan's participants shall be distributed to the participants, and Parent shall, to the extent permitted by the Parent 401(k) Plan and the Code, permit such Company Employees to make rollover contributions to the Parent 401(k) Plan of "eligible rollover distributions" within the meaning of Section 401(a)(31) of the Code (including promissory notes evidencing outstanding participant loans), in the form of cash (and in-kind in the case of participant loan notes), in an amount equal to the full account balance distributed to such Company Employee from the Company 401(k) Plan. The Company and Parent shall cooperate to take any and all commercially reasonable actions needed to permit each Company Employee with an outstanding loan balance under the Company 401(k) Plan as of the Closing Date to continue to make scheduled loan payments to the Company 401(k) Plan after the Closing, pending the distribution and in-kind rollover of the notes evidencing such loans from the Company 401(k) Plan to the Parent 401(k) Plan so as to prevent, to the extent reasonably possible, a deemed distribution or loan offset with respect to such outstanding loans.

(e) During the Pre-Closing Period, the Company shall provide Parent with reasonable advance copies of any notices or communication materials (including website postings) from any Acquired Corporation to its employees with respect to the Transactions or employment, compensation or benefits matters of such employees that relate to the period following the Closing Date, and shall not distribute or disseminate such materials without Parent's prior written approval, which shall not be unreasonably withheld, conditioned or delayed; *provided*, that no such approval shall be required for statements consistent with both (1) a previous press release, public disclosures or public statements made jointly by the Parties (or individually, if such previous press release, disclosure or statement had been approved by the other Party) and (2) any previous non-public communication to employees previously made and approved by the Parties.

(f) The provisions of this Section 6.3 are solely for the benefit of the Parties, and no provision of this Section 6.3 is intended to, or shall, constitute the establishment or adoption of or an amendment to any employee benefit plan for purposes of ERISA or otherwise, and no current or former employee or any other individual associated therewith shall be regarded for any purpose as a third-party beneficiary of the Agreement or have the right to enforce the provisions hereof. Nothing in this Section 6.3 or elsewhere in this Agreement shall be construed to create a right in any Person to employment with Parent, the Surviving Corporation or any other Affiliate of the Surviving Corporation or to any compensation or benefits and the employment of each Company Employee shall be "at will" employment.

6.4 ESPP. The Company shall take all actions necessary pursuant to the terms of the Company ESPP or otherwise to provide that (i) no new offering period will be commenced following the date of this Agreement under the Company ESPP, (ii) there will be no increase in the amount of participants' payroll deduction elections under the Company ESPP during the current offering period from those in effect as of the date of this Agreement, (iii) no individuals shall commence participation in the Company ESPP during the period from the date of this Agreement through the Effective Time, (iv) each purchase right issued pursuant to the Company ESPP shall be fully exercised not later than five (5) business days prior to the Effective Time and (v) the Company ESPP shall terminate immediately following the exercise of the purchase rights

contemplated by the immediately preceding clause (iv) and no further rights shall be granted or exercised under the Company ESPP thereafter.

6.5 Indemnification of Officers and Directors.

(a) For a period of six (6) years from the Effective Time, Parent agrees that all rights to indemnification, advancement of expenses and exculpation from liabilities for acts or omissions occurring at or prior to the Effective Time (whether asserted or claimed prior to, at or after the Effective Time) now existing in favor of the current or former directors or officers of any Acquired Corporation, including in the Company's certificate of incorporation and bylaws, and any indemnification or other similar agreements of any Acquired Corporation, in each case as in effect on the date of this Agreement, shall continue in full force and effect in accordance with their terms, and Parent shall cause the Acquired Corporations to perform their obligations thereunder. Without limiting the foregoing, during the period commencing at the Effective Time and ending on the sixth anniversary of the Effective Time, Parent shall cause the Surviving Corporation and its Subsidiaries to, and the Surviving Corporation agrees that it will, indemnify and hold harmless each individual who is as of the date of this Agreement, or who becomes prior to the Effective Time, a director or officer of any Acquired Corporation or who is as of the date of this Agreement, or who thereafter commences prior to the Effective Time, serving at the request of any Acquired Corporation as a director or officer of another Person (the "Indemnified Persons"), against all claims, losses, liabilities, damages, judgments, inquiries, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements, incurred in connection with any claim, action, suit or proceeding, whether civil, criminal, administrative or investigative (including with respect to matters existing or occurring at or prior to the Effective Time, including this Agreement and the transactions and actions contemplated hereby), arising out of or pertaining to the fact that the Indemnified Person is or was a director or officer of any Acquired Corporation or is or was serving at the request of any Acquired Corporation as a director or officer of another Person, whether asserted or claimed prior to, at or after the Effective Time, to the fullest extent permitted under applicable Legal Requirements. If any such claim, action, suit or proceeding arises, (x) each Indemnified Person will be entitled to advancement of expenses incurred in the defense of any such claim, action, suit or proceeding from the Surviving Corporation or its Subsidiaries, as applicable, to the extent provided for in, and in accordance with, the organizational documents and any indemnification or other similar agreements of the Surviving Corporation or its Subsidiaries, as applicable, as in effect on the date of this Agreement; *provided* that any Indemnified Person to whom expenses are advanced provides an undertaking, if and only to the extent required by the DGCL or the Surviving Corporation's or its Subsidiaries' certificate of incorporation or bylaws (or comparable organizational documents) or any such indemnification or other similar agreements, as applicable, to repay such advances if it is ultimately determined that such Indemnified Person is not entitled to indemnification and (y) the Surviving Corporation and its Subsidiaries, as applicable, shall reasonably cooperate in the defense of any such matter.

(b) For a period of six (6) years from and after the Effective Time, Parent shall either cause to be maintained in effect the current policies of directors' and officers' liability insurance maintained by or for the benefit of the Acquired Corporations or provide substitute policies for the Acquired Corporations and their current and former directors and officers who are currently covered by the directors' and officers' liability insurance coverage

currently maintained by or for the benefit of the Acquired Corporations, in either case, of not less than the existing coverage and having other terms not less favorable to the insured persons than the directors' and officers' liability insurance coverage currently maintained by or for the benefit of the Acquired Corporations with respect to claims arising from facts or events that occurred at or before the Effective Time (with insurance carriers having at least an "A" rating by A.M. Best with respect to directors' and officers' liability insurance), except that in no event shall Parent be required to pay annual premiums with respect to such insurance policies in an amount more than 300% of the aggregate annual premium most recently paid by Parent with respect to the shared primary policy that covers both Parent and the Acquired Corporations or in an amount more than 300% of the aggregate annual premium most recently paid by or allocable to the Acquired Corporations with respect to coverage applicable only to the Acquired Corporations, in each case prior to the date of this Agreement (the "Maximum Amount"), except to the extent Parent elects to pay a higher increase for the portion of the shared primary policy allocable to Parent and its Subsidiaries (other than the Acquired Corporations); and if the Parent or Surviving Corporation is unable to obtain the insurance required by this Section 6.5(b) it shall obtain as much comparable insurance as possible for the years within such six (6)-year period for a premium equal to the Maximum Amount (as may be increased to the extent Parent elects to pay a higher increase for the portion of the shared primary policy allocable to Parent and its Subsidiaries (other than the Acquired Corporations)). In lieu of such continuation of insurance coverage applicable only to the Acquired Corporations, prior to the Closing Date the Company may at its option (and if the Company does not do so on or prior to the Closing Date, Parent may at its option from and after the Closing Date), purchase "tail" directors' and officers' liability insurance policy(ies) (in respect of one or more of such current policies) for the Acquired Corporations and their current and former directors and officers who are currently covered by the directors' and officers' liability insurance coverage currently maintained by or for the benefit of the Acquired Corporations and to have other terms not less favorable to the insured persons than the directors' and officers' liability insurance coverage currently maintained by or for the benefit of the Acquired Corporations with respect to claims arising from facts or events that occurred at or before the Effective Time; *provided* that in no event shall the cost of any such tail policy(ies) exceed the Maximum Amount (pro rated in respect of the policies that will be the subject of such tail coverage). In lieu of such continuation of insurance coverage applicable to both Parent and the Acquired Corporations, Parent may at its option from and after the Closing Date), purchase "tail" directors' and officers' liability insurance policy(ies) (in respect of one or more of such current policies) for the Acquired Corporations and their current and former directors and officers who are currently covered by the directors' and officers' liability insurance coverage currently maintained by or for the benefit of the Acquired Corporations and to have other terms not less favorable to the insured persons than the directors' and officers' liability insurance coverage currently maintained by or for the benefit of the Acquired Corporations with respect to claims arising from facts or events that occurred at or before the Effective Time.

(c) If Parent, any Acquired Corporation or any of its successors or assigns (i) consolidates with or merges into any other Person and is not the continuing or surviving corporation or Entity of such consolidation or merger or (ii) transfers or conveys all or substantially all of its properties and assets to any Person, then, and in each such case, Parent or the Acquired Corporation, as applicable, shall cause proper provision to be made so that the

successors and assigns of Parent or such Acquired Corporation assume the obligations set forth in this Section 6.5.

(d) The provisions of this Section 6.5 (i) shall survive the acceptance of Shares for payment pursuant to the Offer and the consummation of the Merger, (ii) are intended to be for the benefit of, and will be enforceable by, each indemnified or insured party (including the Indemnified Persons), his or her heirs, successors, assigns and representatives, and (iii) are in addition to, and not in substitution for, any other rights to indemnification, advancement of expenses, exculpation or contribution that any such Person may have by contract or otherwise. Unless required by applicable Legal Requirement, this Section 6.5 may not be amended, altered or repealed after the Offer Acceptance Time in such a manner as to adversely affect the rights of any Indemnified Person or any of their successors, assigns or heirs without the prior written consent of the affected Indemnified Person.

6.6 Stockholder Litigation. The Company shall give Parent the right to review and comment on all material filings or responses to be made by the Company in connection with any litigation against the Company and/or its directors or officers relating to the Transactions, and the right to consult on any settlement with respect to such litigation, and no such settlement shall be agreed to without Parent's prior written consent (such consent not to be unreasonably withheld, conditioned or delayed), unless such settlement provides only for additional disclosure. The Company shall promptly notify Parent of any such litigation and shall keep Parent reasonably and promptly informed with respect to the status thereof.

6.7 Additional Agreements. Subject to the terms and conditions of this Agreement, including Section 6.2(a), Parent and the Company shall use reasonable best efforts to take, or cause to be taken, all actions necessary to consummate the Offer and the Merger and make effective the other Transactions. Without limiting the generality of the foregoing, subject to the terms and conditions of this Agreement, each Party to this Agreement shall use reasonable best efforts to (a) make all filings (if any) and give all notices (if any) required to be made and given by such Party pursuant to any Material Contract in connection with the Offer and the Merger and the other Transactions, (b) seek each Consent (if any) required to be obtained pursuant to any Material Contract by such Party in connection with the Transactions to the extent requested in writing by Parent and (c) seek to lift any restraint, injunction or other legal bar to the Offer or the Merger brought by any third Person against such Party.

6.8 Disclosure. The initial press release relating to this Agreement shall be a joint press release issued by the Company and Parent and thereafter Parent and the Company shall consult with each other before issuing any further press release(s) or otherwise making any public statement (to the extent not previously issued or made in accordance with this Agreement) with respect to the Offer, the Merger, this Agreement or any of the other Transactions and shall not issue any such press release or public statement without the other Party's written consent. Notwithstanding the foregoing or anything to the contrary in this Agreement: (a) each Party may, without such consultation or consent, make any public statement in response to questions from the press, analysts, investors or those attending industry conferences, make internal announcements to employees and make disclosures in Company SEC Documents, so long as such statements are consistent with previous press releases, public disclosures or public statements made jointly by the parties (or individually, if approved by the other Party); (b) a

Party may, without the prior consent of the other Party but subject to giving advance notice to the other Party, issue any such press release or make any such public announcement or statement as may be required by Legal Requirement; and (c) the Company need not consult with Parent in connection with such portion of any press release, public statement or filing to be issued or made pursuant to Section 5.3(e) or with respect to any Acquisition Proposal or Company Adverse Change Recommendation.

6.9 Takeover Laws. If any Takeover Law may become, or may purport to be, applicable to the Transactions, each of Parent and the Company and the members of their respective boards of directors shall use their respective reasonable best efforts to grant such approvals and take such actions as are necessary so that the Transactions may be consummated as promptly as practicable on the terms and conditions contemplated hereby and otherwise act to lawfully eliminate the effect of any Takeover Law on any of the Transactions.

6.10 Section 16 Matters. The Company, and the Board of Directors, shall, to the extent necessary, take appropriate action, prior to or as of the Offer Acceptance Time, to approve, for purposes of Section 16(b) of the Exchange Act, the disposition and cancellation or deemed disposition and cancellation of Shares, Company Options and Company RSUs in the Merger by applicable individuals and to cause such dispositions and/or cancellations to be exempt under Rule 16b-3 promulgated under the Exchange Act.

6.11 Rule 14d-10 Matters. Prior to the Offer Acceptance Time and to the extent permitted by applicable Legal Requirements, the compensation committee of the Board of Directors, at a meeting duly called and held, will approve, as an “employment compensation, severance or other employee benefit arrangement” within the meaning of Rule 14d-10(d)(2) under the Exchange Act, each agreement, arrangement or understanding between Purchaser, the Company or their respective Affiliates and any of the officers, directors or employees of the Company or its Subsidiaries that are effective as of the date of this Agreement or are entered into after the date of this Agreement and prior to the Offer Acceptance Time pursuant to which compensation is paid to such officer, director or employee and will take all other action reasonably necessary to satisfy the requirements of the non-exclusive safe harbor set forth in Rule 14d-10(d)(2) under the Exchange Act.

6.12 Stock Exchange Delisting; Deregistration. Prior to the Closing Date, the Company shall cooperate with Parent and use its reasonable best efforts to take, or cause to be taken, all actions, and do or cause to be done all things, reasonably necessary, proper or advisable on its part under applicable Legal Requirements and rules and policies of Nasdaq to enable the delisting by the Surviving Corporation of the Shares from Nasdaq and the deregistration of the Shares under the Exchange Act as promptly as practicable after the Effective Time.

6.13 Notice of Certain Regulatory Events; Cooperation. In furtherance (and not in limitation) of Section 5.1, during the Pre-Closing Period:

(a) the Company shall promptly notify Parent if the Company shall have provided any written correspondence to, or received any written correspondence from, the FDA, the EMA, or any other Governmental Body with respect to (i) the recall, correction, removal,

market withdrawal or replacement of any product that is material to the Acquired Corporations, taken as a whole, (ii) a change in the marketing classification or a change in the labelling of any product, the effect of which would reasonably be expected to be material to the Acquired Corporations, taken as a whole, (iii) any denial of marketing approval by any Governmental Body of a product or product candidate that is material to the Acquired Corporations, taken as a whole, (iv) the mandatory or voluntary termination, enjoinder or suspension of the testing, manufacturing, marketing, export, import, or distribution of any product or product candidate that is material to the Acquired Corporations, taken as a whole or (v) a non-coverage or pricing determination by the Centers for Medicare and Medicaid Services, any other material third-party payor, or any foreign Governmental Body with authority over pharmaceutical products with respect to any product or product candidate, the effect of which would reasonably be expected to be material to the Acquired Corporations, taken as a whole; and

(b) the Acquired Corporations shall (i) promptly inform Parent of and wherever practicable give Parent reasonable advance notice of, and (unless inconsistent with applicable Legal Requirements or not permitted by the applicable Governmental Body) the opportunity to participate in (with the status of observer), any prescheduled teleconference or in person meeting with the FDA, the EMA or any other Governmental Body in connection with any product or product candidate of the Acquired Corporations and (ii) promptly deliver to Parent copies of any material, substantive correspondence received from the FDA, the EMA or other Governmental Body in connection with any product or product candidate of the Acquired Corporations received by any Acquired Corporation, and (iii) provide Parent with reasonable advance copies of, and consider in good faith any comments of Parent with respect to, any correspondence or written submission prior to delivery thereof by the Company to the FDA, the EMA or any other Governmental Body in connection with any product or product candidate of the Acquired Corporations.

6.14 Acquisition of Additional Shares. Prior to the Offer Acceptance Time, Parent shall not, and shall cause each of its Subsidiaries and Affiliates not to, acquire (directly or indirectly, beneficially or of record) any Shares in addition to those held by Parent, its Subsidiaries and its Affiliates, and as of the date hereof and as disclosed in Section 4.10.

SECTION 7

CONDITIONS PRECEDENT TO THE MERGER

The obligations of the Parties to effect the Merger are subject to the satisfaction as of the Closing of each of the following conditions:

7.1 No Restraints. There shall not have been issued by any Governmental Body of competent jurisdiction and remain in effect any temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Merger, nor shall any Legal Requirement have been promulgated, enacted, issued or deemed applicable to the Merger by any Governmental Body which prohibits or makes illegal the consummation of the Merger.

7.2 Consummation of Offer. Purchaser (or Parent on Purchaser's behalf) shall have, in compliance with this Agreement, accepted for payment all of the Shares validly tendered pursuant to the Offer and not validly withdrawn.

SECTION 8

TERMINATION

8.1 Termination. This Agreement may be terminated prior to the Effective Time:

(a) by mutual written consent of Parent and the Company at any time prior to the Offer Acceptance Time;

(b) by either Parent or the Company at any time prior to the Offer Acceptance Time, if the Offer Acceptance Time shall not have occurred on or prior to 11:59 p.m. Eastern Time, on December 30, 2020 (the "End Date"); *provided, however*, that the right to terminate this Agreement pursuant to this Section 8.1(b) shall not be available to any Party whose material breach of this Agreement has caused or resulted in the Offer not being consummated by such date;

(c) by either Parent or the Company if a Governmental Body of competent jurisdiction shall have issued any permanent injunction or other order restraining, enjoining or otherwise preventing the acquisition of or payment for Shares pursuant to the Offer, or if any Legal Requirement shall have been promulgated, enacted, issued or deemed applicable to the Offer or the Merger by any Governmental Body which prohibits or makes illegal the acquisition of or payment for Shares pursuant to the Offer or the consummation of the Merger, in any case which shall be final and nonappealable; *provided, however*, that the right to terminate this Agreement pursuant to this Section 8.1(c) shall not be available to any Party whose material breach of this Agreement has caused or resulted in the issuance of such final and nonappealable order or other action or to any Party that has failed to use its reasonable best efforts as required by this Agreement to remove such order or other action;

(d) by Parent at any time prior to the Offer Acceptance Time, if: (i) the Board of Directors shall have failed to include the Company Board Recommendation or Special Committee Recommendation in the Schedule 14D-9 when mailed, or shall have effected a Company Adverse Change Recommendation; (ii) in the case of a tender offer or exchange offer subject to Regulation 14D under the Exchange Act, other than the Offer, the Board of Directors fails to recommend, in a Solicitation/Recommendation Statement on Schedule 14D-9, rejection of such tender offer or exchange offer within ten (10) business days of the commencement of such tender offer or exchange offer; or (iii) after the public disclosure of an Acquisition Proposal, the Board of Directors or the Special Committee fails to publicly reaffirm the Company Board Recommendation or Special Committee Recommendation, respectively, no later than the earlier of (A) ten (10) business days after Parent so requests in writing and (B) two (2) business days prior to the Expiration Date, *provided* that (1) the Company must receive the request from Parent at least twenty-four (24) hours prior to such reaffirmation being required and (2) Parent may deliver only three (3) such requests with respect to any Acquisition Proposal;

(e) by the Company at any time prior to the Offer Acceptance Time, in order to accept a Superior Offer and substantially concurrently enter into a binding written definitive acquisition agreement providing for the consummation of a transaction which the Board of Directors or the Special Committee shall have determined, in good faith, constitutes a Superior Offer (a "Specified Agreement"); *provided* that (i) no Acquired Corporation shall have materially violated Section 5.3 in relation to such Superior Offer and (ii) the Company shall have paid the Termination Fee immediately before or simultaneously with and as a condition to such termination;

(f) by Parent at any time prior to the Offer Acceptance Time, if a breach of any representation or warranty contained in this Agreement or failure to perform any agreement, covenant or obligation in this Agreement on the part of the Company shall have occurred such that a condition set forth in clause (b) or (c) of Annex I would not be satisfied and cannot be cured by the Company by the End Date, or if capable of being cured in such time period, shall not have been cured within thirty (30) days of the date Parent gives the Company written notice of such breach or failure to perform; *provided, however*, that (A) Parent's termination rights under this Section 8.1(f) shall apply if the Company fails to timely file the Schedule 14D-9 and Company Schedule 13E-3, in each case pursuant to its obligations under Section 1.2, and if such failure shall not have been cured within five (5) business days of the date Parent gives the Company written notice of such breach or failure to perform; and (B) Parent shall not have the right to terminate this Agreement pursuant to this Section 8.1(f) if either Parent or Purchaser is then in material breach of any representation, warranty, covenant or obligation hereunder;

(g) by the Company at any time prior to the Offer Acceptance Time, if a breach of any representation or warranty contained in this Agreement or failure to perform any covenant or obligation in this Agreement on the part of Parent or Purchaser shall have occurred, in each case, if such breach or failure would reasonably be expected to prevent Parent or Purchaser from consummating the Transactions and such breach or failure cannot be cured by Parent or Purchaser, as applicable, by the End Date, or, if capable of being cured in such time period, shall not have been cured within thirty (30) days of the date the Company gives Parent written notice of such breach or failure to perform; *provided, however*, that (A) the Company's termination rights under this Section 8.1(g) shall apply if Purchaser shall have failed to timely commence the Offer, if such failure shall not have been cured within five (5) business days of the date the Company gives Parent written notice of such breach or failure to perform; and (B) that the Company shall not have the right to terminate this Agreement pursuant to this Section 8.1(g) if the Company is then in material breach of any representation, warranty, covenant or obligation hereunder;

(h) by the Company (i) if following the expiration of the Offer, Purchaser shall have failed to accept for payment all Shares validly tendered (and not validly withdrawn) pursuant to the Offer in accordance with Section 1.1(h) or (ii) if following the Offer Acceptance Time Purchaser shall have failed to purchase all Shares validly tendered (and not validly withdrawn) pursuant to the Offer in accordance with Section 1.1(h); or

(i) by Parent if the Offer shall have expired without the acceptance for payment of Shares pursuant to the Offer, in a circumstance in which all of the Offer Conditions are satisfied or have been waived (other than the Minimum Condition and conditions which by

their nature are to be satisfied at the expiration of the Offer) at the then-existing Expiration Date referred to in clause (3) of the proviso to the penultimate sentence of Section 1.1(c); *provided, however*, that Parent shall not have the right to terminate this Agreement pursuant to this Section 8.1(i) if the material breach of this Agreement by Parent has caused or resulted in the failure of the acceptance for payment of Shares pursuant to the Offer.

8.2 Effect of Termination. If this Agreement is terminated as provided in Section 8.1, written notice of such termination shall be given to the other Party or Parties, specifying the provision hereof pursuant to which such termination is made, and this Agreement shall be of no further force or effect and there shall be no liability on the part of Parent, Purchaser or the Company or any of their respective former, current or future officers, directors, partners, stockholders, managers, members or Affiliates following any such termination with respect to this Agreement or the Transactions; *provided, however*, that (a) the final sentence of Section 1.2(b), the final sentence of Section 5.1, this Section 8.2, Section 8.3 and Section 9 (other than Section 9.5(b)) shall survive the termination of this Agreement and shall remain in full force and effect, (b) the Confidentiality Agreement shall survive the termination of this Agreement and shall remain in full force and effect in accordance with its terms and (c) the termination of this Agreement shall not relieve any Party from any liability for fraud or willful and material breach of this Agreement prior to termination.

8.3 Expenses; Termination Fee.

(a) Except as set forth in this Section 8.3, all fees and expenses incurred in connection with this Agreement and the Transactions shall be paid by the Party incurring such expenses, whether or not the Offer and Merger are consummated.

(b) If:

(i) this Agreement is terminated by the Company pursuant to Section 8.1(e);

(ii) this Agreement is terminated by Parent pursuant to Section 8.1(d); or

(iii) (1) this Agreement is terminated by Parent or the Company pursuant to Section 8.1(b) (but in the case of a termination by the Company, only if at such time Parent would not be prohibited from terminating this Agreement pursuant to the proviso to Section 8.1(b)), by Parent pursuant to Section 8.1(f) or by Parent pursuant to Section 8.1(i), (2) any Person shall have publicly disclosed a *bona fide* Acquisition Proposal after the date hereof and prior to such termination and such Acquisition Proposal has not been publicly withdrawn prior to such termination and (3) within twelve (12) months of such termination the Company shall have entered into a definitive agreement with respect to or consummated an Acquisition Proposal; *provided* that for purposes of this clause (3) the references to “20%” in the definition of “Acquisition Proposal” shall be deemed to be references to “50%”; then, in any such event under clause (i), (ii), or (iii) of this Section 8.3(b), the Company shall pay to Parent or its designee the Termination Fee by wire transfer of same day funds (x) in the case of Section 8.3(b)(i), prior to or simultaneously with (and as a condition to the effectiveness of)

such termination, (y) in the case of Section 8.3(b)(ii), within three (3) business days after such termination or (z) in the case of Section 8.3(b)(iii), within three (3) business days after the earlier of the entry into a definitive agreement for or the consummation of the Acquisition Proposal referred to in clause (3) of Section 8.3(b)(iii) or; it being understood that in no event shall the Company be required to pay the Termination Fee on more than one occasion. As used herein, "Termination Fee" shall mean a cash amount equal to \$15,000,000. Payment of the Termination Fee pursuant to this Section 8.3(b) shall be deemed to be liquidated damages for any and all losses or damages suffered or incurred by Parent, Purchaser, any of their respective Affiliates or any other Person in connection with this Agreement (and the termination hereof), the Transactions (and the abandonment thereof) or any matter forming the basis for such termination, and upon the payment of the Termination Fee, none of Parent, Purchaser or any of their respective Affiliates shall be entitled to bring or maintain any claim, action or proceeding against the Company or any of its Affiliates arising out of or in connection with this Agreement, any of the Transactions or any matters forming the basis for such termination.

(c) If this Agreement is terminated as described in Section 8.3(b), (i) payment from the Company to Parent of the Termination Fee pursuant to Section 8.3(b) shall be the sole and exclusive remedy of Parent, Purchaser or any of their respective Affiliates against the Acquired Corporations and any of their respective former, current or future officers, directors, partners, stockholders, managers, members or Affiliates (collectively, "Company Related Parties") for any loss suffered as a result of the failure of the Offer or the Merger to be consummated or for a breach or failure to perform hereunder or otherwise, and (ii) upon payment of such amount, none of the Company Related Parties shall have any further liability or obligation relating to or arising out of this Agreement or the Transactions.

(d) The Parties acknowledge that the agreements contained in this Section 8.3 are an integral part of the transactions contemplated by this Agreement and that, without these agreements, the Parties would not enter into this Agreement; accordingly, if the Company fails to timely pay any amount due pursuant to Section 8.3(b), and, in order to obtain the payment, Parent commences a Legal Proceeding against the Company, then (i) the non-prevailing Party in such Legal Proceeding shall pay the prevailing Party reasonable and documented costs and expenses (including reasonable and documented attorneys' fees) arising out of such Legal Proceeding and (ii), exclusively in the event that Parent prevails in such Legal Proceeding, the Company shall pay interest on the amount due pursuant to Section 8.3(b) as determined in such Legal Proceeding. Any interest payment contemplated by this Section 8.3(d) shall be calculated based on the prime rate as published in the *Wall Street Journal* in effect on the date the applicable payment due pursuant to Section 8.3(b), if any, was required to be made.

SECTION 9

MISCELLANEOUS PROVISIONS

9.1 Amendment. Prior to the Effective Time, this Agreement may be amended at any time with the approval of the Board of Directors (subject to the prior approval of the Special Committee) and the boards of directors of Parent and Purchaser, in each case as constituted at the Offer Acceptance Time. This Agreement may not be amended except by an instrument in writing signed on behalf of each of the Parties.

9.2 Waiver. No failure on the part of any Party to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy. No Party shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party and any such waiver or failure to insist on strict compliance with an obligation, covenant, agreement or condition shall not operate as a waiver of, or estoppel with respect to any, subsequent or other failure. At any time prior to the Effective Time, Parent and Purchaser, on the one hand, and the Company, on the other hand (subject to the prior approval of the Special Committee), may (a) extend the time for the performance of any of the obligations or other acts of the other, (b) waive any breach of the representations and warranties of the other contained herein or in any document delivered pursuant hereto or (c) waive compliance by the other with any of the agreements or covenants contained herein. Any such extension or waiver shall be valid only if it is expressly set forth in a written instrument duly executed and delivered on behalf of the Party or Parties to be bound thereby, but such extension or waiver or failure to insist on strict compliance with an obligation, covenant, agreement or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

9.3 No Survival of Representations and Warranties. None of the representations and warranties contained in this Agreement, the Company Disclosure Schedule or in any certificate or schedule or other document delivered by any Person pursuant to this Agreement shall survive the Offer Acceptance Time.

9.4 Entire Agreement; Counterparts. This Agreement (including its Exhibits, Annexes and the Company Disclosure Schedule) and the Confidentiality Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties and their respective Affiliates, with respect to the subject matter hereof and thereof. This Agreement may be executed in one or more counterparts, including by facsimile or by email with .pdf attachments, all of which shall be considered one and the same agreement, and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties.

9.5 Applicable Legal Requirements; Jurisdiction; Specific Performance; Remedies

(a) This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws thereof. Subject to Section 9.5(c), in any action or proceeding arising out of or relating to this Agreement or any of the Transactions: (i) each of the Parties irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Chancery Court of the State of Delaware and any state appellate court therefrom or, if (but only if) such court lacks subject matter jurisdiction, the United States District Court sitting in New Castle County in the State of Delaware and any appellate court therefrom (collectively,

the “Delaware Courts”); and (ii) each of the Parties irrevocably consents to service of process by first class certified mail, return receipt requested, postage prepaid, to the address at which such Party is to receive notice in accordance with Section 9.9. Each of the Parties irrevocably and unconditionally (1) agrees not to commence any such action or proceeding except in the Delaware Courts, (2) agrees that any claim in respect of any such action or proceeding may be heard and determined in the Delaware Courts, (3) waives, to the fullest extent it may legally and effectively do so, any objection that it may now or hereafter have to the jurisdiction or laying of venue of any such action or proceeding in the Delaware Courts and (4) waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in the Delaware Courts. The Parties agree that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by applicable Legal Requirements; *provided, however*, that nothing in the foregoing shall restrict any Party’s rights to seek any post-judgment relief regarding, or any appeal from, such final trial court judgment.

(b) The Parties agree that irreparable damage for which monetary damages, even if available, would not be an adequate remedy, would occur if the Parties do not perform their obligations under the provisions of this Agreement in accordance with its specified terms or otherwise breach such provisions. Subject to the following sentence, the Parties acknowledge and agree that (i) the Parties shall be entitled to an injunction or injunctions, specific performance, or other equitable relief, to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in the courts described in Section 9.5(a) without proof of damages or otherwise, this being in addition to any other remedy to which they are entitled under this Agreement, and (ii) the right of specific performance is an integral part of the Transactions and without that right, neither the Company nor Parent would have entered into this Agreement. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance and other equitable relief on the basis that the other Parties have an adequate remedy at law or an award of specific performance is not an appropriate remedy for any reason at law or equity. The Parties acknowledge and agree that any Party seeking an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement in accordance with this Section 9.5(b) shall not be required to provide any bond or other security in connection with any such order or injunction.

(c) EACH OF THE PARTIES IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING BETWEEN THE PARTIES (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE), INCLUDING ANY COUNTERCLAIM, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THE ACTIONS OF ANY PARTY HERETO IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT THEREOF. EACH PARTY (I) MAKES THIS WAIVER VOLUNTARILY AND (II) ACKNOWLEDGES THAT SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS CONTAINED IN THIS SECTION 9.5.

9.6 Assignability. This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties and their respective successors and permitted assigns; *provided, however*, that neither this Agreement nor any of the rights hereunder may be

assigned by a Party without the prior written consent of the other Parties, and any attempted assignment of this Agreement or any of such rights without such consent shall be void and of no effect.

9.7 No Third-Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than the Parties) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement; except for: (a) if the Offer Acceptance Time occurs, (i) the right of the Company's stockholders (other than Parent and its Affiliates) to receive the Offer Price or Merger Consideration, as applicable, pursuant to Section 1 or Section 2 following the Offer Acceptance Time or the Effective Time, as applicable, in accordance with the terms of this Agreement and (ii) the right of the holders of Company Options and Company RSUs to receive the Merger Consideration pursuant to Section 2.8 following the Effective Time in accordance with the terms of this Agreement; (b) the provisions set forth in Section 6.5 of this Agreement; and (c) the limitations on liability of the Company Related Parties set forth in Section 8.3(c).

9.8 Transfer Taxes. Except as otherwise provided in Section 1.1(i) and Section 2.6(b), all transfer, documentary, sales, use, stamp, registration and other similar Taxes and fees imposed on the Company with respect to the transfer of Shares pursuant to the Offer or the Merger shall be borne by the Company and expressly shall not be a liability of holders of Shares. The Company shall cooperate with Parent and Purchaser in minimizing any such Taxes.

9.9 Notices. Any notice or other communication required or permitted to be delivered to any Party under this Agreement shall be in writing and shall be deemed properly delivered, given and received (a) upon receipt when delivered by hand, (b) two (2) business days after being sent by registered mail or by courier or express delivery service, (c) if sent by email transmission prior to 6:00 p.m. recipient's local time, upon transmission when receipt is confirmed, or (d) if sent by email transmission after 6:00 p.m. recipient's local time and receipt is confirmed, the business day following the date of transmission; *provided* that in each case the notice or other communication is sent to the physical address or email address set forth beneath the name of such Party below (or to such other physical address or email address as such Party shall have specified in a written notice given to the other Parties):

if to Parent or Purchaser (or following the Effective Time, the Surviving Corporation):

Ionis Pharmaceuticals, Inc.
2855 Gazelle Court
Carlsbad, CA 92010
Attention: Patrick O'Neil
Email: LegalNotices@ionisph.com

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

Skadden, Arps, Slate, Meagher & Flom LLP
500 Boylston Street
Boston, MA 02116
Attention: Graham Robinson
Laura Knoll
Email: Graham.Robinson@skadden.com
Laura.Knoll@skadden.com

if to the Company (prior to the Effective Time):

Akcea Therapeutics, Inc.
22 Boston Wharf Road
9th Floor
Boston, MA 02210
Attention: Damien McDevitt
Joshua Patterson
Email: dmcdevitt@akceatx.com
jpatterson@akceatx.com

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

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Zachary Blume
Christopher Comeau
Email: zachary.blume@ropesgray.com
christopher.comeau@ropesgray.com

9.10 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. If such court does not exercise the power granted to it in the prior sentence, the Parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

9.11 Obligation of Parent. Parent shall ensure that Purchaser duly performs, satisfies and discharges on a timely basis each of the covenants, obligations and liabilities applicable to

Purchaser under this Agreement, and Parent shall be jointly and severally liable with Purchaser for the due and timely performance and satisfaction of each of said covenants, obligations and liabilities.

9.12 Construction.

(a) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(b) The Parties agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement.

(c) As used in this Agreement, the words “include” and “including,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “without limitation.”

(d) Except as otherwise indicated, all references in this Agreement to “Sections,” “Exhibits” or “Annexes” are intended to refer to Sections of this Agreement and Exhibits or Annexes to this Agreement.

(e) The bold-faced headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

(f) References in Section 3 to any document being “delivered” or “made available” to Parent or Purchaser prior to the date of this Agreement shall include any such document (i) delivered to Parent or its Affiliates by the Acquired Corporations from the IPO Date through the date of this Agreement or (ii) entered into by an Acquired Corporation prior to the IPO Date (but excluding any later amendment, modification, supplement or waiver thereof).

[Signature page follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first above written.

AKCEA THERAPEUTICS, INC.

By: /s/ Damien McDevitt
Name: Damien McDevitt
Title: Chief Executive Officer

IONIS PHARMACEUTICALS, INC.

By: /s/ Brett Monia, Ph.D.
Name: Brett Monia, Ph.D.
Title: Chief Executive Officer

AVALANCHE MERGER SUB, INC.

By: /s/ Brett Monia, Ph.D.
Name: Brett Monia, Ph.D.
Title: President

[Signature Page to Agreement and Plan of Merger]

EXHIBIT A

CERTAIN DEFINITIONS

For purposes of the Agreement (including this Exhibit A):

Acceptable Confidentiality Agreement. “Acceptable Confidentiality Agreement” is defined in Section 5.3(a) of the Agreement.

Acquired Corporations. “Acquired Corporations” is defined in Section 3.1(a) of the Agreement.

Acquisition Proposal. “Acquisition Proposal” shall mean any proposal or offer from any Person (other than Parent and its Affiliates) or “group”, within the meaning of Section 13(d) of the Exchange Act, relating to, in a single transaction or series of related transactions, any (A) acquisition or license of assets of the Company equal to 20% or more of the Company’s consolidated assets or to which 20% or more of the Company’s revenues or earnings on a consolidated basis are attributable, (B) issuance or acquisition of 20% or more of the outstanding Company Common Stock, (C) recapitalization, tender offer or exchange offer that if consummated would result in any Person or group beneficially owning 20% or more of the outstanding Company Common Stock or (D) merger, consolidation, amalgamation, share exchange, business combination, recapitalization, liquidation, dissolution or similar transaction involving the Company that if consummated would result in any Person or group beneficially owning 20% or more of the outstanding Company Common Stock, in each case other than the Transactions.

Adverse Drug Reaction Reporting. “Adverse Drug Reaction Reporting” shall mean the reporting to Governmental Bodies of all safety events required to be reported under the FDCA and FDA implementing regulations, and similar applicable foreign laws, including the submission of IND safety reports to the FDA.

Affiliate. “Affiliate” shall mean, as to any Person, any other Person that, directly or indirectly, controls, or is controlled by, or is under common control with, such Person; *provided, however*, that for purposes of this Agreement none of the Company or any of its Subsidiaries shall be considered an Affiliate of Parent or any of its Subsidiaries (other than the Company and its Subsidiaries) and none of Parent or any of its Subsidiaries (other than the Company and its Subsidiaries) shall be considered to be an Affiliate of the Company or any of its Subsidiaries. For this purpose, “control” (including, with its correlative meanings, “controlled by” and “under common control with”) shall mean the possession, directly or indirectly, of the power to direct or cause the direction of management or policies of a Person, whether through the ownership of securities or partnership or other ownership interests, by Contract or otherwise.

Agreement. “Agreement” is defined in the preamble to the Agreement.

Anti-Corruption Laws. “Anti-Corruption Laws” shall mean the Foreign Corrupt Practices Act of 1977, as amended, the Anti-Kickback Act of 1986, as amended, the UK Bribery Act of 2012, and the Anti-Bribery Laws of the People’s Republic of China or any applicable

Legal Requirements of similar effect, and the related regulations and published interpretations thereunder.

Antitrust Laws. “Antitrust Laws” shall mean the Sherman Act, as amended, the Clayton Act, as amended, the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, the Federal Trade Commission Act, as amended, all applicable foreign anti-trust laws and all other applicable Legal Requirements issued by a Governmental Body that are designed or intended to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade or lessening of competition.

Board of Directors. “Board of Directors” shall mean the board of directors of the Company.

Book-Entry Shares. “Book-Entry Shares” shall mean non-certificated Shares represented by book-entry.

business day. “business day” shall mean a day except a Saturday, a Sunday or other day on which banks in the City of New York are authorized or required by Legal Requirements to be closed.

Certificates. “Certificates” is defined in Section 2.6(b) of the Agreement.

Clinical Study. “Clinical Study” is defined in Section 3.12(d) of the Agreement.

Closing. “Closing” is defined in Section 2.3(a) of the Agreement.

Closing Date. “Closing Date” is defined in Section 2.3(a) of the Agreement.

Code. “Code” shall mean the Internal Revenue Code of 1986, as amended and the rules and regulations promulgated thereunder.

Company. “Company” is defined in the preamble to the Agreement.

Company 401(k) Plan. “Company 401(k) Plan” is defined in Section 6.3(d) of the Agreement.

Company Adverse Change Recommendation. “Company Adverse Change Recommendation” is defined in Section 6.1(a) of the Agreement.

Company Associate. “Company Associate” shall mean each current or former officer or other employee, or individual who is or was an independent contractor, consultant or director, of or to the Company or its Subsidiaries.

Company Board Recommendation. “Company Board Recommendation” is defined in Section 3.20(c) of the Agreement.

Company Common Stock. “Company Common Stock” shall mean the common stock, \$0.001 par value per share, of the Company.

Company Disclosure Documents. “Company Disclosure Documents” is defined in Section 3.4(g) of the Agreement.

Company Disclosure Schedule. “Company Disclosure Schedule” shall mean the disclosure schedule that has been prepared by the Company in accordance with the requirements of the Agreement and that has been delivered by the Company to Parent on the date of this Agreement.

Company Employees. “Company Employees” is defined in Section 6.3(a) of the Agreement.

Company Equity Plan. “Company Equity Plan” shall mean the Akcea Therapeutics, Inc. 2015 Equity Incentive Plan.

Company ESPP. “Company ESPP” shall mean the Akcea Therapeutics, Inc. 2017 Employee Stock Purchase Plan.

Company IP. “Company IP” shall mean, collectively, (a) all Owned IP and (b) all Third Party IP.

Company Options. “Company Options” shall mean all compensatory options to purchase Shares.

Company Preferred Stock. “Company Preferred Stock” shall mean the preferred stock, \$0.001 par value per share, of the Company.

Company Related Parties. “Company Related Parties” is defined in Section 8.3(c) of the Agreement.

Company Returns. “Company Returns” is defined in Section 3.15(a) of the Agreement.

Company RSUs. “Company RSUs” shall mean restricted stock units with respect to Shares.

Company Schedule 13E-3. “Company Schedule 13E-3” is defined in Section 1.2(a) of the Agreement.

Company SEC Documents. “Company SEC Documents” is defined in Section 3.4(a) of the Agreement.

Confidentiality Agreement. “Confidentiality Agreement” is defined in Section 5.1 of the Agreement.

Consent. “Consent” shall mean any approval, consent, ratification, permission, waiver or authorization.

Contract. “Contract” shall mean any binding agreement, contract, subcontract, lease, understanding, instrument, bond, debenture, loan, note, option, warrant, license, sublicense, commitment or undertaking.

Copyrights. “Copyrights” is defined in the definition of Intellectual Property Rights.

Delaware Courts. “Delaware Courts” is defined in Section 9.5(a) of the Agreement.

Depository Agent. “Depository Agent” is defined in Section 2.6(a) of the Agreement.

Determination Notice. “Determination Notice” is defined in Section 6.1(b)(i) of the Agreement.

DGCL. “DGCL” shall mean the Delaware General Corporation Law, as amended.

Dissenting Shares. “Dissenting Shares” is defined in Section 2.7 of the Agreement.

DOL. “DOL” is defined in Section 3.16(b) of the Agreement.

Effective Time. “Effective Time” is defined in Section 2.3(b) of the Agreement.

EMA. “EMA” shall mean the European Medicines Agency.

Employee Plan. “Employee Plan” shall mean any (a) “employee benefit plan” as defined in Section 3(3) of ERISA (whether or not subject to ERISA), bonus, deferred compensation, incentive compensation, stock purchase, stock option, other equity-based plan, retention, change in control, severance pay, termination pay, death and disability benefits, hospitalization, medical, life or other insurance, flexible benefits, fringe benefit, vacation, supplemental unemployment benefits, profit-sharing, pension or retirement plan, policy, program, agreement or arrangement, and (b) individual employment, consulting, severance or similar agreement, and each other employee benefit plan, program or arrangement, in each case that is (i) sponsored, maintained, contributed to or required to be contributed to by the Company or its Subsidiaries for the benefit of any current or former officer, director, employee, independent contractor or individual consultant of the Company or its Subsidiaries, (ii) with respect to which the Company or any of its Subsidiaries has any liability or (iii) to which the Company or any of its Subsidiaries is a party. Notwithstanding the foregoing, no plan, policy, program, agreement or arrangement that is sponsored, maintained or administered by Parent or any of its Affiliates (other than the Company and its Subsidiaries) shall constitute an Employee Plan for purposes of this Agreement.

Encumbrance. “Encumbrance” shall mean any lien, pledge, hypothecation, mortgage, security interest, encumbrance, right of first refusal, preemptive right or similar restriction of any nature.

End Date. “End Date” is defined in Section 8.1(b) of the Agreement.

Entity. “Entity” shall mean any corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust,

company (including any company limited by shares, limited liability company or joint stock company), firm, society or other enterprise, association, organization or entity.

Environmental Law. “Environmental Law” shall mean any federal, state, local or foreign Legal Requirement relating to pollution or protection of human health, worker health or the environment (including ambient air, surface water, ground water, land surface or subsurface strata), including any law or regulation relating to emissions, discharges, Releases or threatened Releases of Hazardous Materials, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials.

ERISA. “ERISA” shall mean the Employee Retirement Income Security Act of 1974, as amended.

Exchange Act. “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

Expiration Date. “Expiration Date” is defined in Section 1.1(c) of the Agreement.

Extension Deadline. “Extension Deadline” is defined in Section 1.1(c) of the Agreement.

FDA. “FDA” shall mean the United States Food and Drug Administration.

FDCA. “FDCA” shall mean the Federal Food, Drug and Cosmetic Act, as amended, and all rules and regulations promulgated by the FDA thereunder.

FIRPTA Certificate. “FIRPTA Certificate” is defined in Section 2.9 of the Agreement.

GAAP. “GAAP” is defined in Section 3.4(b) of the Agreement.

Good Clinical Practice Requirements. “Good Clinical Practice Requirements” shall mean FDA’s standards for the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials, including those standards contained in 21 C.F.R. Parts 50, 54, 56 and 312, and comparable standards of any other applicable Governmental Body.

Good Laboratory Practice Requirements. “Good Laboratory Practice Requirements” shall mean the FDA’s standards for conducting non-clinical laboratory studies, including those standards contained in 21 C.F.R. Part 58, and comparable standards of any other applicable Governmental Body.

Good Manufacturing Practice Requirements. “Good Manufacturing Practice Requirements” shall mean the requirements set forth in the quality systems regulations for drugs contained in 21 C.F.R. Parts 210, 211, 600 and 610, as applicable, and comparable standards of any other applicable Governmental Body.

Governmental Authorization. “Governmental Authorization” shall mean any permit, license, application, certificate, franchise, permission, clearance, registration, qualification or

authorization approved, issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Legal Requirement.

Governmental Body. “Governmental Body” shall mean any (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; or (c) governmental or quasi-governmental authority of any nature including any governmental division, department, agency, commission, instrumentality, official, ministry, fund, foundation, center, organization, unit or body and any court, arbitrator or other tribunal.

Hazardous Materials. “Hazardous Materials” shall mean any waste, material, or substance that is listed, regulated or defined under any Environmental Law and includes any pollutant, chemical substance, hazardous substance, hazardous waste, special waste, solid waste, asbestos, mold, radioactive material, polychlorinated biphenyls, petroleum or petroleum-derived substance or waste.

Healthcare Laws. “Healthcare Laws” is defined in Section 3.12(f) of the Agreement.

In-bound License. “In-bound License” shall mean each Contract in or under or pursuant to which any Acquired Corporation is granted any license (exclusive, non-exclusive, or otherwise), covenant not to sue, covenant not to assert, covenant not to enforce, immunity from liability or Legal Proceeding, or other right to use or hold any Third Party IP, in each case, other than Contracts for the license of commercially available off-the-shelf software, clinical trial agreements, non-disclosure agreements or material transfer agreements, in each case, entered into in the ordinary course of business consistent with past practice.

Indebtedness. “Indebtedness” shall mean (i) any indebtedness for borrowed money (including the issuance of any debt security) to any Person, including any capital leases, (ii) any obligations evidenced by notes, bonds, debentures or similar Contracts to any Person other than the Company, (iii) any obligations in respect of letters of credit and bankers’ acceptances (other than letters of credit used as security for leases), (iv) all indebtedness created or arising under any conditional sale or other title retention agreement with respect to property acquired or (v) any guaranty of any such obligations described in clauses (i) through (iv) of any Person other than the Company (other than, in any case, accounts payable to trade creditors and accrued expenses, in each case, arising in the ordinary course of business consistent with past practice).

Indemnified Persons. “Indemnified Persons” is defined in Section 6.5(a) of the Agreement.

Initial Expiration Date. “Initial Expiration Date” is defined in Section 1.1(c) of the Agreement.

Intellectual Property Rights. “Intellectual Property Rights” shall mean the following intellectual property rights: all U.S. and foreign (i) patents, patent applications, invention disclosures, and all related continuations, continuations-in-part, divisionals, reissues, re-examinations, substitutions, and extensions thereof (“Patents”), (ii) trademarks, service marks, names, corporate names, trade names, domain names, logos, slogans, and trade dress, together with the goodwill symbolized by any of the foregoing and applications and registrations for the

foregoing (“Trademarks”), (iii) copyrights and copyrightable subject matter including software and databases (“Copyrights”), (iv) trade secrets, inventions, technical data, specifications, formulae, research and development information (“Trade Secrets”) and (v) with respect to the foregoing clauses (i) through (iv), all causes of action and rights to sue or seek other remedies arising from or relating to the foregoing.

In the Money Option. “In the Money Option” is defined in Section 2.8(a) of the Agreement.

Intervening Event. “Intervening Event” shall mean an event, fact, circumstance, development or occurrence that was not known or reasonably foreseeable to the Board of Directors or the Special Committee, as applicable, as of the date of this Agreement and does not relate to an Acquisition Proposal.

IPO Date. “IPO Date” is defined in Section 3.4(a) of the Agreement.

IRS. “IRS” shall mean the U.S. Internal Revenue Service.

knowledge. “knowledge” with respect to an Entity shall mean with respect to any matter in question the actual knowledge, after reasonable inquiry, of such Entity’s executive officers.

Legal Proceeding. “Legal Proceeding” shall mean any action, suit, complaint, claim, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), hearing or investigation commenced, brought, conducted or heard by or before any Governmental Body.

Legal Requirement. “Legal Requirement” shall mean any federal, state, local, municipal, foreign or other law, statute, constitution, resolution, ordinance, common law, code, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (or under the authority of Nasdaq or another stock exchange).

Material Adverse Effect. “Material Adverse Effect” shall mean any event, occurrence, circumstance, change or effect which, individually or in the aggregate, has had or would reasonably be expected to have a material adverse effect on (a) the ability of the Company to consummate the Transactions on or before the End Date or (b) the business, assets, financial condition or results of operations of the Acquired Corporations, taken as a whole; *provided, however*, that none of the following shall be deemed to constitute or be taken into account in determining whether there is, or would reasonably be expected to be, a Material Adverse Effect for purposes of clause (b) above: (i) any change in the market price or trading volume of the Company’s stock or change in the Company’s credit ratings; *provided* that the underlying causes of any such change may be considered in determining whether a Material Adverse Effect has occurred to the extent not otherwise excluded by another exception herein; (ii) any event, occurrence, circumstance, change or effect resulting from the announcement, pendency or performance of the Transactions (other than for purposes of any representation or warranty contained in Section 3.22 and the condition set forth in clause (b)(iv) of Annex I solely as such condition relates to Section 3.22); (iii) any event, occurrence, circumstance, change or effect generally affecting the industries in which the Acquired Corporations operate or in the economy

generally or other general business, financial or market conditions; (iv) any event, occurrence, circumstance, change or effect arising directly or indirectly from or otherwise relating to fluctuations in the value of any currency or interest rates; (v) any event, occurrence, circumstance, change or effect arising directly or indirectly from or otherwise relating to any act of terrorism (including cyber attacks and computer hacking), war, national or international calamity, natural disaster, epidemic, pandemic, political unrest or any other similar event (or the worsening thereof); (vi) the failure of the Company to meet internal or analysts' expectations or projections; *provided* that the underlying causes of such failure may be considered in determining whether a Material Adverse Effect has occurred to the extent not otherwise excluded by another exception herein; (vii) any adverse effect arising directly from or otherwise directly relating to any action taken by Parent, or by the Company at the written direction of Parent, with the prior written consent of Parent or any action specifically required or permitted to be taken by the Company by the terms of the Agreement; (viii) any event, occurrence, circumstance, change or effect arising directly or indirectly from or otherwise relating to any change in, or any compliance with or action taken for the purpose of complying with any change in, any Legal Requirement or GAAP (or interpretations of any Legal Requirement or GAAP); (ix) any Legal Proceeding described in [Section 2.7](#) or [Section 6.6](#); or (x) any matter disclosed in the Company Disclosure Schedule; *provided* that any event, occurrence, circumstance, change or effect referred to in the foregoing [clauses \(iii\)](#), [\(iv\)](#), [\(v\)](#) and [\(viii\)](#) may be taken into account in determining whether there is, or would be reasonably expected to be, a Material Adverse Effect to the extent such event, occurrence, circumstance, change or effect disproportionately affects the Acquired Corporations relative to other participants in the industries in which the Acquired Corporations operate.

Material Contract. "[Material Contract](#)" is defined in [Section 3.9\(a\)](#) of the Agreement.

Material Leased Real Property. "[Material Leased Real Property](#)" is defined in [Section 3.7\(b\)](#) of the Agreement.

Maximum Amount. "[Maximum Amount](#)" is defined in [Section 6.5\(b\)](#) of the Agreement.

Merger. "[Merger](#)" is defined in [Section 2.1](#) of the Agreement.

Merger Consideration. "[Merger Consideration](#)" is defined in [Section 2.5\(a\)\(iii\)](#) of the Agreement.

Minimum Condition. "[Minimum Condition](#)" is defined in [Annex I](#) to the Agreement.

Nasdaq. "[Nasdaq](#)" shall mean The Nasdaq Stock Market.

Offer. "[Offer](#)" is defined in [Section 1.1\(a\)](#) of the Agreement.

Offer Acceptance Time. "[Offer Acceptance Time](#)" is defined in [Section 1.1\(h\)](#) of the Agreement.

Offer Commencement Date. “Offer Commencement Date” shall mean the date on which Purchaser commences the Offer, within the meaning of Rule 14d-2 under the Exchange Act.

Offer Conditions. “Offer Conditions” is defined in Section 1.1(b) of the Agreement.

Offer Documents. “Offer Documents” is defined in Section 1.1(e) of the Agreement.

Offer Price. “Offer Price” is defined in Section 1.1(a) of the Agreement.

Offer to Purchase. “Offer to Purchase” is defined in Section 1.1(b) of the Agreement.

Out-bound License. “Out-bound License” shall mean each Contract in or under or pursuant to which an Acquired Corporation has granted any license (exclusive, non-exclusive, or otherwise), covenant not to sue, covenant not to assert, covenant not to enforce, covenant not to enjoin, covenant to sue, immunity from liability or Legal Proceeding, option or other right to obtain any of the foregoing licenses, covenants, or immunities in or to or under any Company IP, in each case, other than (i) non-exclusive outbound licenses contained in clinical trial agreements, contract manufacturing agreements, non-disclosure agreements and material transfer agreements or (ii) licenses granted to customers, distributors, or contractors performing services on behalf of an Acquired Corporation, in each case of (i) and (ii), entered into in the ordinary course of business consistent with past practice.

Owned IP. “Owned IP” shall mean all Intellectual Property Rights that are owned or purported to be owned by any of the Acquired Corporations.

Parent. “Parent” is defined in the preamble to the Agreement.

Parent Material Adverse Effect. “Parent Material Adverse Effect” shall mean any effect, change, event or occurrence that would or would reasonably be expected to, individually or in the aggregate, materially impair, prevent or materially delay Parent’s or Purchaser’s ability to consummate the Transactions.

Parent Schedule 13E-3. “Parent Schedule 13E-3” is defined in Section 1.1(e) to the Agreement.

Parent 401(k) Plan. “Parent 401(k) Plan” is defined in Section 6.3(d) of the Agreement.

Parties. “Parties” shall mean Parent, Purchaser, and the Company.

Patent. “Patent” is defined in the definition of Intellectual Property Rights.

Paying Agent. “Paying Agent” is defined in Section 2.6(a) of the Agreement.

Payment Fund. “Payment Fund” is defined in Section 2.6(a) of the Agreement.

Permitted Encumbrance. “Permitted Encumbrance” shall mean (a) any Encumbrance for Taxes that are not due and payable or the validity of which is being contested in good faith by

appropriate proceedings, (b) any Encumbrance representing the rights of customers, suppliers and subcontractors in the ordinary course of business consistent with past practice under the terms of any Contracts to which the relevant Party is a party or under general principles of commercial or government contract law (including mechanics', materialmen's, carriers', workmen's, warehouseman's, repairmen's, landlords' and similar liens granted or which arise in the ordinary course of business consistent with past practice), (c) any interest or title of a lessor under leases (other than capital leases) entered into by the Company or its Subsidiaries in the ordinary course of business consistent with past practice, and any Encumbrance related thereto, (d) in the case of any Contract, Encumbrances that are restrictions against the transfer or assignment thereof that are included in the terms of such Contract, (e) licenses of Intellectual Property Rights, including Out-bound Licenses, and (f) in the case of real property, Encumbrances that are easements, rights-of-way, encroachments, restrictions, conditions and other similar Encumbrances incurred or suffered in the ordinary course of business consistent with past practice and which, individually or in the aggregate, do not and would not materially impair the use (or contemplated use), utility or value of the applicable real property or otherwise materially impair the present or contemplated business operations at such location, or zoning, entitlement, building and other land use regulations imposed by Governmental Bodies having jurisdiction over such real property or that are otherwise set forth on a title report.

Person. "Person" shall mean any individual, Entity or Governmental Body.

Personal Data. "Personal Data" means all data or information that constitutes personally identifiable information, personal data or personal information under any applicable Legal Requirement relating to privacy or data protection, which information includes any credit card or other financial account information, names, addresses, social security or insurance numbers, telephone numbers, facsimile numbers, email addresses or other contact information, and any device identifier.

Pre-Closing Period. "Pre-Closing Period" is defined in Section 5.1 of the Agreement.

Purchaser. "Purchaser" is defined in the preamble to the Agreement.

Real Property Lease. "Real Property Lease" shall mean the leases and subleases under which any Acquired Corporation uses or occupies or has the right to use or occupy any Material Leased Real Property.

Registered IP. "Registered IP" shall mean all Patents, Trademarks and Copyrights that are registered or issued under the authority of any Governmental Body, and all applications for any of the foregoing.

Regulatory Permit. "Regulatory Permit" shall mean all investigational new drug applications, new drug applications, supplemental new drug applications, abbreviated new drug applications, biologic license applications, establishment registrations, and product listings, as may be defined in Title 21 of the C.F.R., all supplements or amendments thereto, all parts thereof, and all comparable foreign Governmental Authorizations.

Release. "Release" (and its cognates) shall mean, with respect to Hazardous Materials, any presence, emission, spill, seepage, leak, escape, leaching, discharge, deposit, injection,

pumping, pouring, emptying, escaping, dumping, disposal, migration, or release of Hazardous Materials from any source into or upon the environment, including the indoor and outdoor air, soil, improvements, surface water, groundwater, the sewer, septic system, storm drain, publicly owned treatment works, or waste treatment, storage, or disposal systems.

Representatives. “Representatives” shall mean officers, directors, employees, attorneys, accountants, investment bankers, consultants, agents, financial advisors, other advisors and other representatives.

Sarbanes-Oxley Act. “Sarbanes-Oxley Act” is defined in Section 3.4(a) of the Agreement.

Schedule 13E-3. “Schedule 13E-3” is defined in Section 1.1(e) of the Agreement.

Schedule 14D-9. “Schedule 14D-9” is defined in Section 1.2(a) of the Agreement.

SEC. “SEC” shall mean the United States Securities and Exchange Commission.

Securities Act. “Securities Act” shall mean the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

Security Incident. “Security Incident” is defined in Section 3.8(j) of the Agreement.

Shares. “Shares” is defined in Section 1.1(a) of the Agreement.

Special Committee. “Special Committee” is defined in Section 3.20(b) of the Agreement.

Special Committee Recommendation. “Special Committee Recommendation” is defined in Section 3.20(b) of the Agreement.

Specified Agreement. “Specified Agreement” is defined in Section 8.1(e) of the Agreement.

Stockholder List Date. “Stockholder List Date” is defined in Section 1.2(b) of the Agreement.

Subsidiary. An Entity shall be deemed to be a “Subsidiary” of another Person if such Person directly or indirectly owns, beneficially or of record, (a) an amount of voting securities or other interests in such Entity that is sufficient to enable such Person to elect at least a majority of the members of such Entity’s board of directors or other governing body, or (b) at least 50% of the outstanding equity or financial interests of such Entity; *provided, however,* that for purposes of this Agreement none of the Company or any of its Subsidiaries shall be considered a Subsidiary of Parent or any of its Subsidiaries (other than the Company and its Subsidiaries) and none of Parent or any of its Subsidiaries (other than the Company and its Subsidiaries) shall be considered to be a Subsidiary of the Company or any of its Subsidiaries.

Superior Offer. “Superior Offer” shall mean an unsolicited bona fide written Acquisition Proposal that the Board of Directors or the Special Committee determines, in its good faith judgment, after consultation with outside legal counsel and its financial advisors, is reasonably likely to be consummated in accordance with its terms, taking into account all legal, regulatory and financing aspects (including certainty of closing) of the proposal and the Person making the proposal and other aspects of the Acquisition Proposal that the Board of Directors or the Special Committee deems relevant, and if consummated, would result in a transaction more favorable to the Company’s stockholders (other than Parent and its Affiliates), solely in their capacity as such, from a financial point of view than the Transactions (including after giving effect to proposals, if any, made by Parent pursuant to Section 6.1(b)(i)); *provided* that for purposes of the definition of “Superior Offer,” the references to “20%” in the definition of Acquisition Proposal shall be deemed to be references to “50%.”

Surviving Corporation. “Surviving Corporation” is defined in Section 2.1 of the Agreement.

Takeover Laws. “Takeover Laws” shall mean any “moratorium,” “control share acquisition,” “fair price,” “supermajority,” “affiliate transactions,” or “business combination statute or regulation” or other similar state anti-takeover laws and regulations.

Tax. “Tax” shall mean any and all federal, state, local or non-U.S. or other tax (including any net income, gross income, franchise, capital gains, gross receipts, gross profits, branch profits, value-added, surtax, estimated, employment, unemployment, national health insurance, excise, alternative or minimum, ad valorem, transfer, stamp, sales, use, service, property, business, withholding, payroll or other tax), levy, assessment, tariff, impost, imposition, duty (including any customs duty), fee or other tax, assessment or charge (including withholding in respect of Taxes on amounts paid to or by any Person) of any kind whatsoever (whether disputed or not), imposed, assessed or collected by or under the authority of any Governmental Body, together with any and all interests, penalties, and additions to tax imposed thereon, or with respect thereto.

Tax Return. “Tax Return” shall mean any return (including any information return), report, statement, declaration, estimate, schedule, form, filing, election, certificate, document or other information filed or required to be filed with any Governmental Body in connection with the determination, assessment, collection or payment of any Tax, including any attachments thereto and any amendments thereof.

Termination Condition. “Termination Condition” is defined in Annex I to the Agreement.

Termination Fee. “Termination Fee” is defined in Section 8.3(b) of the Agreement.

Third Party IP. “Third Party IP” shall mean all Intellectual Property Rights used or held for use by any Acquired Corporation in the operation of its business as currently conducted or, with respect to the products currently under development, as proposed to be conducted, that are not (i) Owned IP or (ii) Intellectual Property Rights owned or controlled, or purported to be owned or controlled, by Parent or its Subsidiaries, in each case, other than Contracts for the

license of commercially available off-the-shelf software, clinical trial agreements, non-disclosure agreements or material transfer agreements, in each case, entered into in the ordinary course of business consistent with past practice.

Third Party IP Contracts. “Third Party IP Contracts” shall mean each Contract, other than any (i) In-bound License or (ii) Contracts for the license of commercially available off-the-shelf software, clinical trial agreements, non-disclosure agreements or material transfer agreements entered into in the ordinary course of business consistent with past practice, pursuant to which an Acquired Corporation has any option or claim to any ownership, license, or other right in or to any Intellectual Property Right of any third party.

Trademarks. “Trademarks” is defined in the definition of Intellectual Property Rights.

Trade Secrets. “Trade Secrets” is defined in the definition of Intellectual Property Rights.

Transactions. “Transactions” shall mean (a) the execution and delivery of the Agreement and (b) all of the transactions contemplated by the Agreement, including the Offer and the Merger.

EXHIBIT B

CERTAIN AFFILIATED PERSONS

Damien McDevitt

B-1

CONDITIONS TO THE OFFER

The obligation of Purchaser to accept for payment and pay for Shares validly tendered (and not validly withdrawn) pursuant to the Offer is subject to the satisfaction of the conditions set forth in clauses (a) through (g) of this Annex I. Accordingly, notwithstanding any other provision of the Offer or the Agreement to the contrary, Purchaser shall not be required to accept for payment or (subject to any applicable rules and regulations of the SEC, including Rule 14e-1(c) under the Exchange Act) pay for, and may delay the acceptance for payment of, or (subject to any such rules and regulations) the payment for, any tendered Shares, and, to the extent permitted by the Agreement, may terminate the Offer (i) upon termination of the Agreement and (ii) at any scheduled Expiration Date (subject to any extensions of the Offer pursuant to Section 1.1(c) of the Agreement), if (A) the Minimum Condition, the Termination Condition and the conditions set forth in clause (f) of this Annex I shall not be satisfied by one minute after 11:59 p.m. Eastern Time on the scheduled Expiration Date or (B) any of the additional conditions set forth below shall not be satisfied or waived (to the extent permitted by applicable Legal Requirement) in writing by Parent:

(a) there shall have been validly tendered and not validly withdrawn Shares that, excluding the Shares beneficially owned by Parent, its Affiliates, their respective directors and executive officers, and the other affiliated Persons listed on Exhibit B, represent at least one more Share than 50% of the Shares not beneficially owned by such Persons outstanding at the time of the expiration of the Offer (the "Minimum Condition");

(b) (i) the representations and warranties of the Company set forth in Section 3.3(a), 3.3(c) and 3.3(e) (Capitalization, Etc.) of the Agreement shall be accurate except for any *de minimis* inaccuracies as of the date of the Agreement and at and as of the Offer Acceptance Time as if made on and as of the Offer Acceptance Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period);

(ii) the representations and warranties of the Company set forth in the first sentence of Section 3.1 (Due Organization; Subsidiaries, Etc.) and Sections 3.2 (Certificate of Incorporation and Bylaws), 3.3(b) and 3.3(d) (Capitalization, Etc.), 3.21 (Takeover Laws), 3.23 (Opinion of Financial Advisors) and 3.24 (Brokers and Other Advisors) of the Agreement shall be accurate (disregarding for this purpose all "Material Adverse Effect" and "materiality" qualifications contained in such representations and warranties) in all material respects as of the date of the Agreement and at and as of the Offer Acceptance Time as if made on and as of the Offer Acceptance Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period);

(iii) the representations and warranties of the Company set forth in Sections 3.5(b) (Absence of Changes; No Material Adverse Effect), 3.20 (Authority; Binding Nature of Agreement; No Vote) and 3.22(a)(i) (Non-Contravention; Consents) of the Agreement shall be accurate in all respects as of the date of the Agreement and at and as of the Offer Acceptance Time as if made on and as of the Offer Acceptance Time (except to the extent any such

representation or warranty expressly relates to an earlier date or period, in which case as of such date or period);

(iv) the representations and warranties of the Company set forth in the Agreement (other than those referred to in clauses (b)(i), (b)(ii) and (b)(iii) of this Annex I) shall be accurate (disregarding for this purpose all “Material Adverse Effect” and “materiality” qualifications contained in such representations and warranties) as of the date of the Agreement and at and as of the Offer Acceptance Time as if made on and as of the Offer Acceptance Time (except to the extent any such representation or warranty expressly relates to an earlier date or period, in which case as of such date or period), except where the failure of such representations and warranties to be so accurate has not had, and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect;

(c) the Company shall be in compliance with, in all material respects, the obligations, covenants and agreements it is required to comply with or perform at or prior to the Offer Acceptance Time;

(d) since the date of the Agreement, there shall not have occurred and be continuing any event, occurrence, circumstance, change or effect which, individually or in the aggregate, has had, or would reasonably be expected to have, a Material Adverse Effect;

(e) Parent and Purchaser shall have received a certificate executed on behalf of the Company by the Company’s Chief Executive Officer and Chief Financial Officer confirming that the conditions set forth in clauses (b), (c) and (d) of this Annex I have been satisfied;

(f) (i) there shall not have been issued by any Governmental Body of competent jurisdiction and remain in effect any temporary restraining order, preliminary or permanent injunction or other order preventing the acquisition of or payment for Shares pursuant to the Offer or the consummation of the Merger, and (ii) there shall not have been any Legal Requirement promulgated, enacted, issued or deemed applicable to the Offer or the Merger by any Governmental Body which prohibits or makes illegal the acquisition or acceptance for payment of Shares pursuant to the Offer or the consummation of the Merger, in either case of the foregoing clause (i) or (ii) which shall be final and nonappealable; and

(g) the Agreement shall not have been terminated in accordance with its terms (the “Termination Condition”).

The foregoing conditions are for the sole benefit of Parent and Purchaser and (except for the Minimum Condition, the Termination Condition and the conditions set forth in clause (f) of this Annex I, which conditions are non-waivable) may be waived by Parent and Purchaser, in whole or in part, at any time and from time to time, in the sole and absolute discretion of Parent and Purchaser. The failure by Parent or Purchaser at any time to exercise any of the foregoing rights shall not be deemed a waiver of any such right and each such right shall be deemed an ongoing right which may be asserted at any time and from time to time.

The capitalized terms used in this Annex I and not defined in this Annex I shall have the meanings set forth in the Agreement and Plan of Merger, dated as of August 30, 2020, by and among Akcea Therapeutics, Inc., Ionis Pharmaceuticals, Inc. and Avalanche Merger Sub, Inc.

ANNEX II

**FORM OF CERTIFICATE OF INCORPORATION
OF THE SURVIVING CORPORATION**

AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

AKCEA THERAPEUTICS, INC.

FIRST: The name of the Corporation is Akcea Therapeutics, Inc. (the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, Wilmington, New Castle County, 19801. The name of its registered agent at that address is The Corporation Trust Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware as set forth in Title 8 of the Delaware Code (the "DGCL").

FOURTH: The total number of shares of stock which the Corporation shall have authority to issue is 1,000 shares of Common Stock, each having a par value of one thousandth of one dollar (\$0.001).

FIFTH: The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

- (1) The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.
- (2) The directors shall have concurrent power with the stockholders to make, alter, amend, change, add to or repeal the By-Laws of the Corporation.
- (3) The number of directors of the Corporation shall be as from time to time fixed by, or in the manner provided in, the By-Laws of the Corporation. Election of directors need not be by written ballot unless the By-Laws so provide.
- (4) To the fullest extent possible under applicable law, no director shall be personally liable to the Corporation or any of its stockholders for monetary damages if the DGCL is amended to authorize corporate action further eliminating or limiting the personal

liability of directors, then the liability of a director of the Company shall be eliminated to the fullest extent permitted by the DGCL, as so amended. Any repeal or modification of this Article FIFTH shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification with respect to acts or omissions occurring prior to such repeal or modification.

(5) In addition to the powers and authority hereinbefore or by statute expressly conferred upon them, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the DGCL, this Certificate of Incorporation, and any By-Laws adopted by the stockholders; provided, however, that no By-Laws hereafter adopted by the stockholders shall invalidate any prior act of the directors which would have been valid if such By-Laws had not been adopted.

SIXTH: Meetings of stockholders may be held within or without the State of Delaware, as the By-Laws may provide. The books of the Corporation may be kept (subject to any provision contained in the DGCL) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the By-Laws of the Corporation.

SEVENTH: The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Corporation has caused this Amended and Restated Certificate of Incorporation to be executed on its behalf this [•] day of [•], 2020.

Akcea Therapeutics, Inc.

By: _____
Name:
Title:

Ionis Pharmaceuticals to Acquire Remaining Stake in Akcea Therapeutics

- Ionis to acquire remaining 24% of common stock of Akcea it does not already own for \$18.15 per share in cash
- Transaction drives efficiencies, enhances capabilities and further strengthens Ionis' financial position
- Transaction is a key step in the evolution of Ionis' business strategy

CARLSBAD, Calif., and BOSTON, August 31, 2020 – Ionis Pharmaceuticals, Inc. (NASDAQ: IONS) and its affiliate Akcea Therapeutics, Inc. (NASDAQ: AKCA) today announced that they have entered into a definitive agreement under which Ionis will acquire all of the outstanding shares of Akcea common stock it does not already own, approximately 24%, for \$18.15 per share in cash. This corresponds to a total transaction value of approximately \$500 million on a fully diluted basis. The transaction has been approved by the Ionis and Akcea Boards of Directors, and by the independent Affiliate Transactions Committee of Akcea's Board of Directors. Akcea's Board of Directors has recommended to shareholders of Akcea that they tender their shares into the tender offer.

"This acquisition is another step forward in Ionis' evolution and creates a stronger, more efficient organization to the benefit of all stakeholders," said Brett Monia, Chief Executive Officer of Ionis. "We believe becoming one company – with one vision and one set of strategic priorities, led by one team – will deliver significant strategic value, enhancing the future success of our company, accelerating our next phase of growth and positioning us to most effectively deliver our medicines to patients. Following the completion of the transaction, Ionis will retain more value from Akcea's rich pipeline and commercial products, further strengthening our financial position and supporting continued investments in our future."

"Akcea values the skills, experience and expertise of our teams and I am proud of what we've accomplished in developing and delivering transformational medicines to patients," said Damien McDevitt, Chief Executive Officer of Akcea. "This acquisition by Ionis is a testament to the achievements of the Akcea team."

"This transaction delivers immediate and certain value with a premium to Akcea shareholders," said Barbara Yanni, Chair of the Akcea Affiliate Transactions Committee. "Our close collaboration with Ionis has been key to enabling the launch of two commercial antisense medicines in just two years as well as advancing a late-stage pipeline and securing important partnerships."

SIGNIFICANT FINANCIAL BENEFITS

This transaction also further strengthens Ionis' financial position:

- Ionis will realize more financial upside from Akcea's rich pipeline and commercial products.
- Ionis will gain full access to Akcea's significant cash on hand of approximately \$390 million as of June 30, 2020 and future cash flows to further invest in the Company's future and further support Ionis' capital allocation strategy.
- Ionis will achieve meaningful cost synergies.

TERMS OF THE AGREEMENT

Under the terms of the agreement, Ionis will commence a tender offer for all outstanding shares of Akcea common stock not already owned by Ionis at a price of \$18.15 per share in cash. The closing of the tender offer will be subject to a majority of Akcea's shares not already owned by Ionis, its affiliates or their respective directors and executive officers being tendered in the tender offer.

Promptly following the completion of the tender offer, Ionis will acquire all remaining shares of Akcea common stock at the same price of \$18.15 per share in cash through a second-step merger. Ionis and Akcea expect to complete the transaction in the fourth quarter of 2020, subject to other customary closing conditions.

Ionis expects to fund the acquisition through existing cash resources. The transaction is not subject to any financing condition.

ADVISORS

Goldman Sachs & Co. LLC and Stifel, Nicolaus & Company, Incorporated are serving as financial advisors to Ionis, and Skadden, Arps, Slate, Meagher & Flom LLP is serving as legal counsel to Ionis. Cowen is serving as financial advisor to the Affiliate Transactions Committee of Akcea's Board of Directors, and Ropes & Gray LLP is serving as legal counsel to the Affiliate Transactions Committee of Akcea's Board of Directors.

ABOUT IONIS PHARMACEUTICALS, INC.

As the leader in RNA-targeted drug discovery and development, Ionis has created an efficient, broadly applicable, drug discovery platform called antisense technology that can treat diseases where no other therapeutic approaches have proven effective. Our drug discovery platform has served as a springboard for actionable promise and realized hope for patients with unmet needs. We created the first and only approved treatment for children and adults with spinal muscular atrophy as well as the world's first RNA-targeted therapeutic approved for the treatment of polyneuropathy in adults with hereditary transthyretin amyloidosis. Our sights are set on all the patients we have yet to reach with a pipeline of more than 40 novel medicines designed to potentially treat a broad range of diseases, including neurological, cardio-renal, metabolic, infectious, and pulmonary diseases.

To learn more about Ionis visit www.ionispharma.com or follow us on twitter @ionispharma.

ABOUT AKCEA THERAPEUTICS, INC.

Akcea Therapeutics, Inc., a majority-owned affiliate of Ionis Pharmaceuticals, Inc. (NASDAQ: IONS), is a biopharmaceutical company focused on developing and commercializing medicines to treat patients with serious and rare diseases. Akcea is commercializing TEGSEDI® (inotersen) and WAYLIVRA® (volanesorsen), as well as advancing a mature pipeline of novel medicines, including AKCEA-APO(a)-L_{Rx}, vupanorsen (AKCEA-ANGPTL3-L_{Rx}), AKCEA-APOCIII-L_{Rx}, and AKCEA-TTR-L_{Rx}, with the potential to treat multiple diseases. All six medicines were discovered by Ionis, a leader in antisense therapeutics, and are based on Ionis' proprietary antisense technology. TEGSEDI is approved in the U.S., E.U., Canada and Brazil, and WAYLIVRA is approved in the E.U. Akcea is headquartered in Boston, Massachusetts, and is building the infrastructure to commercialize its medicines globally. Additional information about Akcea is available at www.akceatx.com and you can follow the Company on twitter at @akceatx.

Notice to Investors and Security Holders

The tender offer referred to in this communication has not yet commenced. The description contained in this communication is neither an offer to purchase nor a solicitation of an offer to sell any securities, nor is it a substitute for the tender offer materials that Ionis will file with the Securities and Exchange Commission (the "SEC"). The solicitation and offer to buy shares of Akcea common stock will only be made pursuant to an offer to purchase and related tender offer materials. At the time the tender offer is commenced, Ionis will file a tender offer statement on Schedule TO and thereafter Akcea will file a solicitation/recommendation statement on Schedule 14D-9 with the SEC with respect to the Offer. THE TENDER OFFER MATERIALS (INCLUDING AN OFFER TO PURCHASE, A RELATED LETTER OF TRANSMITTAL AND CERTAIN OTHER OFFER DOCUMENTS) AND THE SOLICITATION/RECOMMENDATION STATEMENT ON SCHEDULE 14D-9 WILL CONTAIN IMPORTANT INFORMATION. AKCEA SHAREHOLDERS ARE URGED TO READ THESE DOCUMENTS CAREFULLY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION THAT HOLDERS SHOULD CONSIDER BEFORE MAKING ANY DECISION REGARDING TENDERING THEIR SHARES. The offer to purchase, the related letter of transmittal and the solicitation/recommendation statement will be made available free of charge at the SEC's website at www.sec.gov. Additional copies may be obtained for free by contacting Ionis or Akcea, as applicable. Copies of the documents filed with the SEC by Ionis will be available free of charge on Ionis' internet website at <https://ir.ionispharma.com/financial-information/sec-filings> or by contacting Ionis' investor relations contact at (760) 603-2681. Copies of the documents filed with the SEC by Akcea will be available free of charge on Akcea's internet website at <https://ir.akceatx.com/> or by contacting Akcea's investor relations contact at (617) 841-9535.

In addition to the offer to purchase, the related letter of transmittal and certain other tender offer documents to be filed by Ionis, as well as the solicitation/recommendation statement to be filed by Akcea, Ionis and Akcea will also file quarterly and current reports with the SEC. Ionis' and Akcea's filings with the SEC are available to the public from commercial document-retrieval services and at the website maintained by the SEC at <http://www.sec.gov>.

FORWARD-LOOKING STATEMENTS

Ionis Pharmaceuticals, Inc. and Akcea Therapeutics, Inc. assume no obligation to update forward-looking statements contained in this communication as a result of new information or future events or developments except as required by law. This press release includes forward-looking statements regarding the business of Akcea Therapeutics, Inc. and Ionis Pharmaceuticals, Inc., the therapeutic and commercial potential of TEGSEDI® (inotersen) and WAYLIVRA® (volanesorsen) and the proposed acquisition of Akcea that are subject to risks and uncertainties that could cause actual results to differ materially from those expressly or implied by such statements. Any statement describing Akcea's or Ionis' goals, expectations, financial or other projections, intentions or beliefs, including the commercial potential of TEGSEDI and WAYLIVRA or other of Akcea's or Ionis' drugs in development is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. Risks and uncertainties also include, among other things, risks related to the satisfaction or waiver of the conditions to closing the proposed acquisition in the anticipated timeframe or at all, including uncertainties as to how many of Akcea's stockholders will tender their Shares in the tender offer and the possibility that the acquisition does not close; disruption from the transaction making it more difficult to maintain business and operational relationships; risks that anticipated synergies will not be realized or may be delayed; and the magnitude of transaction costs. Akcea's and Ionis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Akcea's and Ionis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Akcea and Ionis. In particular, we caution you that our forward-looking statements are subject to the ongoing and developing circumstances related to the COVID-19 pandemic, which may have a material adverse effect on our business, operations and future financial results. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Akcea's and Ionis' programs are described in additional detail in Akcea's and Ionis' quarterly reports on Form 10-Q and annual reports on Form 10-K, which are on file with the SEC. Copies of these and other documents are available from each company.

In this press release, unless the context requires otherwise, "Ionis," "Akcea," "Company," "we," "our," and "us" refers to Ionis Pharmaceuticals or Akcea Therapeutics, as applicable.

Ionis Pharmaceuticals™ is a trademark of Ionis Pharmaceuticals, Inc. Akcea Therapeutics®, TEGSEDI® and WAYLIVRA® are trademarks of Akcea Therapeutics, Inc.

Ionis Media Contact:

Roslyn Patterson
Vice President, Corporate Communications
760-603-2681
rpatterson@ionisph.com

Ionis Investor Contact:

D. Wade Walke, Ph.D.
Vice President, Investor Relations
760-603-2741
wwalke@ionisph.com

Akcea Media Contact:

Angelyn Lowe

Vice President, Corporate Communications & Investor Relations

617-207-8509

alowe@akceatx.com

Akcea Investor Contact:

Matthew Roache

Director, Investor Relations

617-841-9535

mroache@akceatx.com