
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): January 9, 2020

IONIS PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

000-19125
(Commission File No.)

33-0336973
(IRS Employer Identification No.)

2855 Gazelle Court
Carlsbad, CA 92010
(Address of Principal Executive Offices and Zip Code)

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

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:

<u>Title of each class</u>	<u>Trading symbol</u>	<u>Name of each exchange on which registered</u>
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 (Section 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (Section 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.

The information provided under Item 5.02 below is incorporated herein by reference.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(e) Second Amended and Restated Advisory Services Agreement between the Company and B. Lynne Parshall

As Ionis Pharmaceuticals, Inc. (the “*Company*”) previously reported on its Current Report on Form 8-K filed on January 16, 2018, B. Lynne Parshall, who was with the Company for 27 years and was the Company’s former Chief Operating Officer, became a Senior Strategic Advisor to the Company effective January 2018. The Company and Ms. Parshall entered into a Strategic Advisory Services Agreement on January 16, 2018, which was amended and restated on March 22, 2019. On January 9, 2020, the Company entered into a second amended and restated Strategic Advisory Services Agreement with Ms. Parshall (the “*Second Amended and Restated Advisory Services Agreement*”).

Pursuant to the Second Amended and Restated Advisory Services Agreement, Ms. Parshall will receive annual compensation of \$300,000 for services we expect Ms. Parshall to provide in the fiscal year ending December 31, 2020. If Ms. Parshall provides more than seventy-three full days of service in fiscal year ending December 31, 2020, she will receive additional compensation of \$5,000 per day to be paid at the end of 2020. Ms. Parshall will not be eligible for a performance bonus for services provided under the Second Amended and Restated Advisory Services Agreement. Payment for services after 2020 will be set by mutual written agreement between the Company and Ms. Parshall.

Ms. Parshall will continue to serve on the board of directors of the Company and Akcea Therapeutics, Inc. (“*Akcea*”), a subsidiary of the Company. Ms. Parshall will receive for her board service the same compensation as the Company and Akcea provide their other nonemployee directors. If in the future Ms. Parshall ends her board of director service for the Company, for 18 months following such date, the Company will pay Ms. Parshall’s COBRA premium payments, or if COBRA is not available, an amount equal to the cost of comparable health insurance coverage. The Second Amended and Restated Advisory Services Agreement will continue until terminated by the Company or Ms. Parshall upon 120 days’ advance written notice.

The foregoing summary of the Second Amended and Restated Advisory Services Agreement does not purport to be complete and is qualified in its entirety by reference to the Second Amended and Restated Advisory Services Agreement, a copy of which is attached hereto as Exhibit 10.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

[10.1](#) Second Amended and Restated Advisory Services Agreement dated January 9, 2020.

104 Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURE

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

Ionis Pharmaceuticals, Inc.

Dated: January 10, 2020

By: /s/ Patrick R. O'Neil

Patrick R. O'Neil

Senior Vice President, Legal, General Counsel and Chief Compliance Officer



SECOND AMENDED AND RESTATED STRATEGIC ADVISORY SERVICES AGREEMENT ("SUMMARY PAGE")

This Second Amended and Restated Strategic Advisory Services Agreement is entered into and made effective as of January 9, 2020, and amends and restates the Strategic Advisory Service Agreement dated January 15, 2018, as amended on March 22, 2019, by and between B. Lynne Parshall and Ionis Pharmaceuticals, Inc. ("Ionis").

Date of Strategic Advisory Services Agreement: ("Agreement") January 15, 2018 ("Effective Date"). Effective Date of Second Amendment and Restatement January 9, 2020.
Name of Strategic Advisor: B. Lynne Parshall (hereinafter "Strategic Advisor").
Scope of Strategic Advisory Services: As set forth on Schedule A attached hereto.
Duration of Strategic Advisory Services (the "Strategic Advisory Period"): Until termination by Ionis or Strategic Advisor in accordance with Section 8 of Exhibit A below.
Consideration for Strategic Advisory Services: As set forth on Schedule B attached hereto.
Time Provided by Strategic Advisor: As set forth on Schedule A attached hereto.

In addition to such compensation, Ionis will reimburse Strategic Advisor for Ionis approved travel and other out-of-pocket costs reasonably incurred in the course of performing Strategic Advisory Services under this Agreement as further described on Schedule B attached hereto.

Strategic Advisor agrees to provide Ionis with Strategic Advisory Services on the terms described above and according to the additional terms attached hereto as Exhibit A. In this Agreement references to Ionis, including but not limited to Sections 3-6 of Exhibit A, will include Ionis' affiliate companies where applicable.

By (Signature): Strategic Advisor /s/ B. Lynne Parshall Ionis Pharmaceuticals, Inc. /s/ Brett Monia
Date: January 9, 2020 January 9, 2020
Printed Name: B. Lynne Parshall Brett Monia

Social Security or Employer Tax ID Number to be provided separately via W-9 form or foreign equivalent.

EXHIBIT A

TERMS OF STRATEGIC ADVISORY AGREEMENT

1. Engagement of Services

Strategic Advisor is retained to perform certain services, as needed and requested by Ionis, which services are specifically described on Schedule A attached hereto ("*Strategic Advisory Services*"). Strategic Advisor will perform such Strategic Advisory Services to the best of Strategic Advisor's talent and ability.

2. Compensation

As full and complete compensation for Strategic Advisory Services and for the discharge of all of Strategic Advisor's obligations hereunder, Ionis will pay Strategic Advisor at the rate set forth on Schedule B attached hereto. Strategic Advisor will invoice Ionis on a quarterly basis for Strategic Advisor fees and reimbursable expenses, and Ionis, upon its approval, will pay all undisputed fees and expenses within 30 days after Ionis' receipt of the invoice.

3. Independent Contractor

Strategic Advisor is an independent contractor and not an employee of Ionis. Strategic Advisor has no authority to obligate Ionis by contract or otherwise. Strategic Advisor will not be eligible for any employee benefits. Taxes will be the sole responsibility of Strategic Advisor.

4. Additional Activities

- (a) Strategic Advisor agrees that during the Strategic Advisory Period and for one year thereafter, Strategic Advisor will not attempt to induce any employee or employees of Ionis to terminate their employment with, or otherwise cease their relationship with Ionis.
- (b) Strategic Advisor acknowledges that Ionis has developed, through an extensive acquisition process, valuable information regarding actual or prospective partners, licensors, licensees, clients, customers and accounts of Ionis ("*Trade Secret Information*"). Strategic Advisor acknowledges that Strategic Advisor's use of such Trade Secret Information after the termination of the Strategic Advisory Period would cause Ionis irreparable harm. Therefore, Strategic Advisor also agrees that Strategic Advisor will not utilize any Trade Secret Information to solicit the business relationship or patronage of any of the actual or prospective partners, licensors, licensees, clients, customers or accounts of Ionis.
- (c) The restrictions set forth in this Section 4 are considered by the parties to be reasonable for the purposes of protecting Ionis' business. However, if any such restriction is found by a court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it will be interpreted to extend only over the maximum period of time, range of activities or geographic areas as to which it may be enforceable.

5. **Confidential Information**

- (a) Ionis possesses confidential information that has been created, discovered, developed by, or otherwise become known to Ionis (including, without limitation, information created, discovered, developed or made known by Strategic Advisor arising from the Strategic Advisory Services).
- (i) All such information is hereinafter referred to as “**Confidential Information.**” By way of illustration, but not limitation, Confidential Information includes: (A) inventions, developments, designs, improvements, trade secrets, ideas, formulas, source and object codes, programs, other works of authorship, organisms, plasmids, expression vectors, know-how, processes, cell lines, discoveries, techniques, data and documentation systems (hereinafter collectively referred to as “**Inventions**”); and (B) information regarding plans for research, development, new products, clinical data, pre-clinical product data, clinical trial patient data, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, as well as information regarding the skills and compensation of employees of Ionis.
- (ii) All Confidential Information will be the sole property of Ionis and its assigns, and Ionis and its assigns will be the sole owner of all patents, copyrights and other rights in connection with such Confidential Information. At all times, both during the term of this Agreement and for five years after its termination, Strategic Advisor will keep in confidence and trust all Confidential Information and will not use, disclose, lecture upon or publish any Confidential Information or anything related to such information without Ionis’ prior written consent. Any permitted disclosures will be made in strict compliance with the Ionis publication and presentation clearance policy.
- (b) Strategic Advisor also understands that Ionis has received and in the future, will receive valuable information from third parties that is confidential or proprietary (“**Third-Party Information**”) subject to a duty on the part of Ionis to maintain the confidentiality of such information and to use it only for certain limited purposes. During the term of this Agreement and for five years thereafter, Strategic Advisor will hold Third-Party Information in the strictest confidence and will not disclose or use Third-Party Information except as permitted by the agreement between Ionis and such third party, unless expressly authorized to act otherwise by an officer of Ionis in writing. Any permitted disclosures will be made in strict compliance with Ionis publication and presentation clearance policy.
- (c) The obligations of Section 5 will not apply to information that Strategic Advisor can establish by written records: (i) was known by Strategic Advisor prior to the receipt of Confidential Information; (ii) was disclosed to Strategic Advisor by a third party having the right to do so; (iii) was, or subsequently became, in the public domain through no fault of Strategic Advisor, its officers, directors, affiliates employees or agents; (iv) was independently developed by Strategic Advisor without use of Confidential Information; or (v) was disclosed by Strategic Advisor pursuant to any judicial, governmental or stock exchange request, requirement or order, so long as Strategic Advisor provided Ionis with sufficient prior notice in order to allow Ionis to contest such request, requirement or order.

6. **Inventions**

In the course of performing Strategic Advisory Services for Ionis, Strategic Advisor may develop new ideas or Inventions or make other contributions of value to Ionis.

- (a) Strategic Advisor hereby assigns to Ionis Strategic Advisor's entire right, title and interest in and to any and all Inventions (and all patent rights, copyrights, and all other rights in connection therewith, hereinafter referred to as "**Proprietary Rights**") whether or not patentable or registrable under patent, copyright or similar statutes, made or conceived of or reduced to practice or learned by Strategic Advisor, either alone or jointly with others, as a result of performing Strategic Advisory Services hereunder. All Inventions assigned to Ionis pursuant to this section will be known as "**Company Inventions**". Strategic Advisor agrees that all Proprietary Rights and Company Inventions are Ionis' sole property. Strategic Advisor agrees, upon request, to execute, verify and deliver assignments of such Proprietary Rights to Ionis or its designee. Strategic Advisor understands that, to the extent this Agreement will be construed in accordance with the laws of any state which precludes a requirement in an agreement to assign certain classes of inventions made by an individual acting as a Strategic Advisor, this section will be interpreted not to apply to any inventions that a court rules and/or Ionis agrees falls within such classes.
- (b) Strategic Advisor further agrees to assist Ionis in every proper way to obtain, from time to time, and to enforce United States and foreign Proprietary Rights relating to Company Inventions in any and all countries. To that end Strategic Advisor will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as Ionis may reasonably request for use in applying for, obtaining, sustaining and enforcing such Proprietary Rights relating to Company Inventions. Strategic Advisor's obligation to assist Ionis in obtaining and enforcing Proprietary Rights relating to Company Inventions in any and all countries will continue beyond the termination of this Agreement, but Ionis will compensate Strategic Advisor at a reasonable rate after such termination for the time actually spent by Strategic Advisor at Ionis' request in connection with such assistance. If Ionis is unable, after reasonable effort, to secure Strategic Advisor's signature on any document needed to apply for or prosecute any Proprietary Rights relating to a Company Invention, Strategic Advisor hereby irrevocably designates and appoints Ionis and its duly authorized officers and agents as her agent and attorney in fact, to act for and on Strategic Advisor's behalf to execute, verify and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of any such Proprietary Rights with the same legal force and effect as if executed by Strategic Advisor.

- (d) During the term of this Agreement, Strategic Advisor will promptly disclose to Ionis, or any persons designated by it, fully and in writing and will hold in trust for the sole right and benefit of Ionis any and all Company Inventions, whether or not patentable or protectable by copyright. At the time of each such disclosure, Strategic Advisor will advise Ionis in writing of any Inventions that Strategic Advisor believes are not subject to the assignment provisions of Section 6(a) above, and Strategic Advisor will at that time provide to Ionis in writing all evidence necessary to substantiate that belief. Strategic Advisor will not be obligated to disclose information received by Strategic Advisor from others under a contract of confidentiality. In addition, after termination of this Agreement, Strategic Advisor will disclose to Ionis all patent applications filed by Strategic Advisor relating to any Company Inventions or relating to any work performed by Strategic Advisor on behalf of Ionis.

7. **Previous Strategic Advisory Relationships**

Strategic Advisor represents that Strategic Advisor's performance of Strategic Advisory Services, as well as Strategic Advisor's performance of the rest of Strategic Advisor's obligations under the terms of this Agreement, will not breach any agreement to keep in confidence any proprietary information acquired by Strategic Advisor in confidence or in trust from another entity prior to the date of this Agreement. Strategic Advisor agrees not to bring to Ionis or to use in the performance of Strategic Advisory Services for Ionis any materials or documents of a present or former employer or client of Strategic Advisor, or any materials or documents obtained by Strategic Advisor under a confidentiality agreement imposed by reason of another of Strategic Advisor's Strategic Advisory relationships, unless such materials or documents are generally available to the public or Strategic Advisor has authorization from such present or former employer or client for the possession and unrestricted use of such materials.

8. **Termination; Survival**

(a) The term of this Agreement will begin on January 15, 2018 and will end when terminated by either Ionis or Strategic Advisor. Ionis may terminate this Agreement at any time for any reason by providing Strategic Advisor at least 120 days advance written notice. Strategic Advisor may terminate this Agreement at any time for any reason by providing Ionis at least 120 days advance written notice; *provided*, once Strategic Advisor delivers such a termination notice, Ionis may elect to accelerate the effective date of such termination. Upon any termination, Ionis will pay Strategic Advisor for any Strategic Advisory Services appropriately rendered and for any out of pocket expenses reasonably incurred on behalf of Ionis, up to and including the termination date.

(b) Sections 9 and 10, the last sentence of the paragraph of Schedule B entitled "Ionis Stock Awards" and the last paragraph of Schedule B will survive termination of this Agreement. In addition, upon expiration or termination of this Agreement, each party will be released from all obligations and liabilities to the other occurring or arising after the date of such expiration or termination, except that any termination or expiration of this Agreement will not relieve Strategic Advisor of Strategic Advisor's obligations under Sections 4, 5, 6, 7, 9, 10 and 11 hereof, nor will any such expiration or termination relieve Strategic Advisor or Ionis from any liability arising from any breach of this Agreement. Upon expiration or termination of this Agreement for any reason whatsoever, Strategic Advisor will promptly surrender and deliver to Ionis any and all notes, business records, memoranda, specifications, devices, formulas, molecules, cells, storage media, including calculations, sequences, data and other materials of any nature pertaining to Strategic Advisory Services for Ionis, as well as any documents or data of any description (or any reproduction of any documents or data) containing or pertaining to any Trade Secret Information, Ionis' Confidential Information or Third Party Information.

9. **Arbitration**

- (a) Ionis and Strategic Advisor agree to resolve by arbitration all disputes, claims or controversies (“**Claims**”), past, present or future, whether or not arising out of this Agreement or its termination, that Ionis may have against Strategic Advisor or that Strategic Advisor may have against any of the following (i) Ionis; (ii) Ionis officers, directors; employees or agents; (iii) Ionis’ subsidiary or affiliated entities, joint ventures, or joint employers; (iv) Ionis’ benefit plans or the plans’ sponsors, fiduciaries, administrators, affiliates and agents; and/or (v) all successors and assigns of any of the foregoing. The Claims covered by this Agreement include all disputes that Ionis or Strategic Advisor could otherwise pursue in state or federal court including, but not limited to, Claims based on any state, federal, or local statute, regulation or ordinance (including Claims for discrimination, retaliation, harassment, unpaid wages or violation of state or federal wage and hour laws), as well as common law Claims (including Claims for breach of contract, breach of the implied covenant of good faith and fair dealing, wrongful discharge, defamation, misrepresentation, fraud, or infliction of emotional distress). Ionis and Strategic Advisor anticipates that this Section 9 provides the benefits of a speedy, less formal, impartial, final and binding dispute resolution procedure.
- (b) To the maximum extent permitted by law, Strategic Advisor hereby waives any right to bring on behalf of persons other than Strategic Advisor, or to otherwise participate with other persons in, any class, collective or representative action (i.e. a type of lawsuit in which one or several persons sue on behalf of a larger group of persons).
- (c) The arbitration will be conducted by a single neutral arbitrator in accordance with the then-current Commercial Arbitration and Mediation Procedures of the American Arbitration Association (“**AAA**”). The arbitration will take place in San Diego, California. Ionis will pay the arbitrator’s fee and will bear all administrative charges by AAA. All parties will be entitled to engage in reasonable pre-hearing discovery to obtain information to prosecute or defend the asserted claims. Any disputes between the parties regarding the nature or scope of discovery will be decided by the arbitrator. The arbitrator will hear and issue a written ruling upon any dispositive motions brought by either party, including but not limited to, motions for summary judgment or summary adjudication of issues. After the hearing, the arbitrator will issue a written decision setting forth the award, if any, and explaining the basis therefore. The arbitrator will have the power to award any type of relief that would be available in court. The arbitrator’s award will be final and binding upon the parties and may be entered as a judgment in any court of competent jurisdiction. If there is conflict in the arbitration procedures set forth in this Agreement and the AAA rules specified above, the AAA rules will control. Notwithstanding the foregoing, and regardless of what is provided by the AAA rules, the arbitrator will not have authority or jurisdiction to consolidate claims of different individuals or entities into one proceeding, nor will the arbitrator have authority or jurisdiction to hear the arbitration as a class action. As noted above, Strategic Advisor has agreed to waive any right to bring any class, collective or representative action. To the extent that the class, collective or representative action waiver described above is not enforceable, the issue of whether to certify any alleged or putative class for a class action proceeding must be decided by a court of competent jurisdiction. The arbitrator will not have authority or jurisdiction to decide class certification, collective or representative action issues. Until any class certification, collective, or representative action issues are decided by the court, all arbitration proceedings will be stayed, and the arbitrator will take no action with respect to the matter. However, once any issues regarding class certification, collective, or representative action have been decided by the court, the arbitrator will have authority to decide the substantive claims.

10. **Indemnification**

- (a) Ionis will indemnify, defend and hold Strategic Advisor harmless against any and all losses, costs, expenses and damages (including reasonable attorney's fees) ("Loss(es)") incurred as a result of any third party claims, suits, actions, demands or proceedings resulting or arising from the performance of Strategic Advisory Services as specifically directed by Ionis in accordance with the Agreement to the extent such Loss(es) are not the result of Strategic Advisor's gross negligence, intentional misconduct or material breach of this Agreement.
- (b) Ionis' agreement to indemnify, defend and hold Strategic Advisor harmless is conditioned upon the Strategic Advisor (i) providing written notice to Ionis of any claim, demand or action arising out of the indemnified activities within thirty (30) days after Strategic Advisor has knowledge of such claim, demand or action, *provided* that the failure to so notify Ionis shall not relieve Ionis of its obligations hereunder except to the extent such failure shall have actually materially prejudiced Ionis; (ii) permitting Ionis to assume full responsibility to investigate, prepare for and defend against any such claim or demand; (iii) assisting Ionis, at Ionis' reasonable expense, in the investigation of, preparation of and defense of any such claim or demand; (iv) undertaking reasonable steps to mitigate any loss, damage or expense with respect to the applicable claim or demand; and (v) not settling such claim or demand without Ionis' prior written consent.
- (c) Ionis will endeavor to include Strategic Advisor as a covered attorney on its insurance policy for attorneys who advise Ionis.

11. **Miscellaneous**

- (a) The rights and liabilities of the parties hereto will bind and inure to the benefit of their respective successors, heirs, executors and administrators, as the case may be; *provided that*, as Ionis has specifically contracted for Strategic Advisor's services, Strategic Advisor may not assign or delegate Strategic Advisor's obligations under this Agreement either in whole or in part without Ionis' prior written consent.
- (b) Because Strategic Advisor's services are personal and unique and because Strategic Advisor has access to and become acquainted with Ionis' Confidential Information, the parties agree that in the event of a threatened or actual material breach of this Agreement by Strategic Advisor injunctive relief would be appropriate. As such, Ionis has the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief without prejudice to any other rights and remedies that Ionis may have for a breach of this Agreement.
- (c) This Agreement will be governed by and construed according to the laws of the State of California as such laws are applied to contracts entered into and performed entirely within such State. If any provision of this Agreement is held to be or becomes invalid, illegal or unenforceable, such provision will be validly reformed to approximate as nearly as possible the intent of the parties and the remainder of this Agreement will not be affected thereby and will remain valid and enforceable to the greatest extent permitted by law.
- (d) This Agreement, and all other documents mentioned herein, constitute the final, exclusive and complete understanding and agreement of the parties hereto and supersedes all prior understandings and agreements. Any waiver, modification or amendment of any provision of this Agreement will be effective only if in writing and signed by the parties hereto.
- (e) Any notices required or permitted hereunder will be given to the appropriate party at the address specified on the Summary Page or at such other address as the party will specify in writing. Such notice will be deemed given upon personal delivery to the appropriate address, or by facsimile transmission (receipt verified and with confirmation copy followed by another permitted method), sent by express courier service, or, if sent by certified or registered mail, three (3) days after the date of mailing.

SCHEDULE A

Strategic Advisory Services

Ionis Board of Directors

You will serve on the Ionis board of directors as a nonemployee director until your resignation or removal in accordance with Ionis' corporate charter. You will serve on the Agenda committee of the Board, and Ionis will periodically evaluate your ability to serve on other Board committees to the extent permitted by applicable SEC and Nasdaq rules. You will participate in other Board Committee meetings as requested as a non-member.

Akcea

Your services to Akcea will be handled by a separate agreement between you and Akcea. Any services you provide Akcea will not count towards hours worked under this Agreement.

Strategic Neurology/Rare Disease Subsidiary Board of Directors

When Ionis forms a strategic neurological/rare disease focused subsidiary, you will serve on the board of directors of such subsidiary as a non employee director on the same terms as other non employee directors until your resignation or removal in accordance with the subsidiary's corporate charter.

Additional Strategic Advisory Services

You will provide Ionis strategic advice regarding Ionis' business, including but not limited to the following:

For calendar year 2020, you will provide approximately seventy-three full days of strategic advice. For each year following 2020, you and Ionis will mutually agree on the approximate number of business days each month you will provide strategic advice during such year. You will make yourself generally available for conference calls and in person meetings Ionis invites you to attend. You will travel to locations as reasonably requested by Ionis, including to Ionis, Akcea, Ionis' partners, or other locations where Ionis is conducting corporate development activities (e.g. JP Morgan conference or strategic off-site meetings). You and Ionis expect that, you will participate in Ionis' development management committee (DMC) meetings, Ionis' affiliate's and Biogen joint steering committee meetings, and when requested, Ionis' strategic management meetings. As requested by Ionis, you will facilitate Ionis' strategic partnerships and help develop Ionis' subsidiaries' and affiliates' senior management teams. You will work with the Executive Chairman, CEO and others on strategic planning and direction for the Company. You will participate in major corporate communication initiatives, including business/financial messaging. You will participate in structuring and negotiating as requested new strategic alliances. Your advisory services may include providing Ionis legal advice.

You and Ionis will reasonably coordinate to have you present on site for board of directors meetings, and a few days before and/or after such meetings to perform strategic advisory services. The time you spend preparing for or attending board of directors or board committee meetings for Ionis or any subsidiary will not count towards your commitment to perform additional strategic advisory services outlined above.

While you are providing such services, Ionis will make an appropriate level of administrative and technical personnel available to facilitate your performance of Advisory Services at no cost to you, including, without limitation IT support and access to Ionis' electronic calendar and IT systems that are necessary to perform your duties.

SCHEDULE B

Compensation for Strategic Advisory Services

Ionis Board of Directors

For your service on the Ionis board of directors, you will receive the same compensation as Ionis provides its other nonemployee directors. You will receive the same annual equity awards as Ionis' other nonemployee directors. You will also be eligible for any benefits (including any applicable health benefits) Ionis provides to its nonemployee directors.

Strategic Neurology/Rare Disease Subsidiary Board of Directors

For your service on the board of directors of Ionis' strategic neurological/rare disease subsidiary (if formed), you will receive the same compensation (including equity awards) as such subsidiary provides its other nonemployee /outside directors.

Additional Strategic Advisory Services

For your other strategic advisory services, starting in the fiscal year ending in 2020, Ionis will pay you as follows:

- \$300,000 for services rendered through December 31, 2020 to be paid in equal quarterly installments *provided, however*, that if you provide more than seventy-three full days of service during the aforementioned period, then payment for days above seventy-three will be \$5,000 per day to be paid at the end of 2020.
- You will not be eligible for an Ionis performance bonus.
- Ionis will evaluate its needs and your availability at the end of 2020.

Ionis Stock Awards

Since you transitioned seamlessly from an Ionis employee to a nonemployee director, the stock options and RSUs you received for your previous service as an Ionis employee will continue to vest so long as your Continuous Service (as defined in the applicable equity plan) continues. Once you are no longer serving on the Ionis board and no longer providing strategic advisory services, to the extent permitted by the terms of the applicable stock option agreement, your vested stock options will not terminate until the earlier of 18 months following your retirement or the expiration of the original term of such stock option.

For Ionis-directed travel and lodging Ionis will reimburse you for such travel, lodging and related expenses or reasonable rate equivalents for lodging, car and meals you provide. All such reimbursements will be in accordance with Ionis' travel policy and you will provide Ionis reasonably acceptable supporting documentation.

For the 18 months following the end of your Ionis board of directors services, if you are eligible for continued health coverage under COBRA, Ionis will pay your COBRA premium payments sufficient to continue your coverage at your then current level, or if COBRA is not available, Ionis will pay you an amount equal to the cost of comparable replacement coverage.