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

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): December 12, 2018**

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**Arsanis, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-38295**  
(Commission  
File Number)

**27-3181608**  
(IRS Employer  
Identification No.)

**890 Winter Street, Suite 230**  
**Waltham, Massachusetts**  
(Address of principal executive offices)

**02451**  
(Zip Code)

**Registrant's telephone number, including area code: (781) 819-5704**

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

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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 (*see* General Instruction A.2. below):

- 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))

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.

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**Item 1.01. Entry into a Material Definitive Agreement.**

On December 20, 2018, Arsanis, Inc., a Delaware corporation (“Arsanis”), Artemis AC Corp., a Delaware corporation and a wholly owned subsidiary of Arsanis (“Merger Sub”), and X4 Pharmaceuticals, Inc., a Delaware corporation (“X4”), entered into a First Amendment to Agreement and Plan of Merger (the “Merger Agreement Amendment”) to that certain Agreement and Plan of Merger, dated November 26, 2018 (the “Merger Agreement”), by and among Arsanis, Merger Sub and X4.

Pursuant to the Merger Agreement Amendment, Arsanis and X4 have agreed to amend the terms of their previously announced Merger Agreement to provide that, at the effective time of the merger (the “Effective Time”), Arsanis will assume all stock option plans or other stock or equity-related plans of X4 (“X4 Stock Plans”). As a result, under the Merger Agreement, as amended by the Merger Agreement Amendment, all stock options and other equity-based awards that have been issued or that may be available for grant under an X4 Stock Plan as of immediately prior to the Effective Time will become exercisable or issuable, as applicable, in respect of shares of Arsanis common stock at the Effective Time (subject to appropriate adjustment for the exchange ratios for the X4 common stock and X4 preferred stock set forth in the Merger Agreement), under such X4 Stock Plan or a stock option plan or other stock or equity-related plan of Arsanis.

Other than as expressly modified pursuant to the Merger Agreement Amendment, the Merger Agreement, which was filed as Exhibit 2.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission by Arsanis on November 27, 2018, remains in full force and effect as originally executed on November 26, 2018. The preceding summary is qualified in its entirety by reference to the Merger Agreement Amendment, a copy of which is attached hereto as Exhibit 2.1 and is incorporated herein by reference.

**Item 8.01. Other Events.**

On December 12, 2018, Arsanis entered into a patent license and option agreement with Janssen Pharmaceuticals, Inc. (“Janssen”), referred to as the License and Option Agreement. Pursuant to the License and Option Agreement, Arsanis granted to Janssen (i) a non-exclusive license to specified patents in the Arsanis portfolio related to the ASN200 *E. coli* program, and (ii) an option for Janssen to acquire these patents in the future if specified conditions are met. Janssen agreed to pay Arsanis \$3.5 million within fifteen days after the December 12, 2018 effective date of the License and Option Agreement, in addition to a future \$0.5 million payment in the event Janssen exercises its option to acquire the relevant patents.

**Item 9.01. Financial Statements and Exhibits.**

(d) *Exhibits*

**Exhibit No.****Description**

2.1 [First Amendment to Agreement and Plan of Merger, dated December 20, 2018, by and among Arsanis, Inc., Artemis AC Corp. and X4 Pharmaceuticals, Inc.](#)

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## **PARTICIPANTS IN THE SOLICITATION**

Arsanis, X4 and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from the holders of Arsanis common stock in connection with the proposed transaction. Information about Arsanis' directors and executive officers is set forth in Arsanis' Annual Report on Form 10-K for the year ended December 31, 2017, which was filed with the Securities and Exchange Commission (the "SEC") on March 9, 2018, and the proxy statement for Arsanis' 2018 annual meeting of stockholders, which was filed with the SEC on April 23, 2018. Other information regarding the interests of such individuals, as well as information regarding X4's directors and executive officers and other persons who may be deemed participants in the proposed transaction, will be set forth in the proxy statement/prospectus/information statement, which will be included in Arsanis' registration statement when it is filed with the SEC. Investors and security holders may obtain free copies of these documents as described in the paragraph below.

## **IMPORTANT INFORMATION ABOUT THE TRANSACTION WILL BE FILED WITH THE SEC**

In connection with the proposed merger, Arsanis will file with the SEC a Registration Statement on Form S-4 that will include a proxy statement of Arsanis, a prospectus of Arsanis and an information statement of X4 and certain of its affiliates (the "X4 Parties"), and the parties may file with the SEC other relevant documents concerning the proposed transaction. Arsanis will mail the definitive proxy statement/prospectus/information statement to the Arsanis stockholders and the X4 Parties equity holders. ARSANIS STOCKHOLDERS AND X4 PARTIES EQUITY HOLDERS ARE URGED TO READ THE REGISTRATION STATEMENT AND PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT REGARDING THE PROPOSED TRANSACTION WHEN IT BECOMES AVAILABLE AND ANY OTHER RELEVANT DOCUMENTS FILED WITH THE SEC, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS TO THOSE DOCUMENTS, BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION. Investors and security holders may obtain a free copy of the proxy statement/prospectus/information statement (when available) and other filings containing information about Arsanis at the SEC's website at [www.sec.gov](http://www.sec.gov). The proxy statement/prospectus/information statement (when available) and the other filings may also be obtained free of charge by contacting: Arsanis, Inc., 890 Winter Street, Suite 230, Waltham, Massachusetts 02451, Attention: Investor Relations.

Additional information regarding the interests of those participants and other persons who may be deemed participants in the transaction may be obtained by reading the proxy statement/prospectus/information statement regarding the proposed transaction when it becomes available. Free copies of this document may be obtained as described in the preceding paragraphs.

## **NO OFFERS OR SOLICITATIONS**

This communication shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended (the "Securities Act").

## **CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this Current Report on Form 8-K regarding the merger, potential payments to and the option to acquire patents from Arsanis under the License and Option Agreement, and the strategies, goals, prospects, plans, expectations, forecasts or objectives of Arsanis, X4 or the combined company constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and are usually

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identified by the use of words such as “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “seeks,” “should,” “will,” “would,” and variations of such words or similar expressions. Arsanis intends for these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act and is making this statement for purposes of complying with those safe harbor provisions. These forward-looking statements reflect Arsanis’ current views about its plans, intentions, expectations, strategies and prospects, which are based on the information currently available to Arsanis and on assumptions it has made. Although Arsanis believes that its plans, intentions, expectations, strategies and prospects as reflected in or suggested by those forward-looking statements are reasonable, Arsanis can give no assurance that the plans, intentions, expectations or strategies will be attained or achieved. Furthermore, actual results may differ materially from those described in the forward-looking statements and will be affected by a variety of important risks and factors that are beyond Arsanis’ control.

Risks and uncertainties for Arsanis, X4 and the combined company include, but are not limited to, the: inability to complete the proposed merger and other contemplated transactions; liquidity and trading market for shares prior to and following the consummation of the proposed merger; costs and potential litigation associated with the proposed merger; failure or delay in obtaining required approvals by the SEC or any other governmental or quasi-governmental entity necessary to consummate the proposed merger, including Arsanis’ ability to file an effective proxy statement/prospectus/information statement in connection with the proposed merger and other contemplated transactions, which may also result in unexpected additional transaction expenses and operating cash expenditures on the parties; failure to obtain the necessary stockholder approvals or to satisfy other conditions to the closing of the proposed merger and the other contemplated transactions; a superior proposal being submitted to either party; failure to issue Arsanis’ or the combined company’s common stock in other contemplated transactions exempt from registration or qualification requirements under applicable state securities laws; risks related to the costs, timing and regulatory review of the combined company’s nonclinical studies and clinical trials; uncertainties in obtaining successful clinical results for product candidates such as X4’s X4P-001 and unexpected costs that may result therefrom; inability or the delay in obtaining required regulatory approvals for product candidates such as X4P-001, which may result in unexpected cost expenditures; failure to realize any value of certain product candidates developed and being developed, in light of inherent risks and difficulties involved in successfully bringing product candidates to market; inability to develop new product candidates; inability to commercialize and launch any product candidate that receives regulatory approval, including X4P-001; the combined company’s anticipated capital expenditures, its estimates regarding its capital requirements and its need for future capital; uncertainties of cash flows and inability to meet working capital needs; cost reductions that may not result in anticipated level of cost savings or cost reductions prior to or after the consummation of the proposed merger; the approval by the U.S. Food and Drug Administration and European Medicines Agency and any other similar foreign regulatory authorities of other competing or superior products brought to market; risks resulting from unforeseen side effects; risk that the market for the combined company’s products may not be as large as expected; inability to obtain, maintain and enforce patents and other intellectual property rights or the unexpected costs associated with such enforcement or litigation; inability to obtain and maintain commercial manufacturing arrangements with third party manufacturers or establish commercial scale manufacturing capabilities; inability to establish and maintain licensing, collaboration or similar arrangements on favorable terms and the inability to attract collaborators with development, regulatory and commercialization expertise; inability to successfully commercialize any approved product candidates, including their rate and degree of market acceptance; unexpected cost increases and pricing pressures; the possibility of economic recession and its negative impact on customers, vendors or suppliers; and risks associated with the possible failure to realize certain benefits of the proposed merger, including future financial, tax, accounting treatment, and operating results. Many of these factors that will determine actual results are beyond Arsanis’, X4’s, or the combined company’s ability to control or predict.

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Other risks and uncertainties are more fully described in Arsanis' Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC, and in other filings that Arsanis makes and will make with the SEC in connection with the proposed transactions, including the proxy statement/prospectus/information statement described herein under "Important Information About the Transaction Will be Filed with the SEC." Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. The statements made in this Current Report on Form 8-K speak only as of the date stated herein, and subsequent events and developments may cause Arsanis' expectations and beliefs to change. While Arsanis may elect to update these forward-looking statements publicly at some point in the future, it specifically disclaims any obligation to do so, whether as a result of new information, future events or otherwise, except as required by law. These forward-looking statements should not be relied upon as representing Arsanis' views as of any date after the date stated herein.

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**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 hereunto duly authorized.

ARSANIS, INC.

Date: December 20, 2018

By: /s/ Michael P. Gray

Michael P. Gray  
President and Chief Executive Officer and Chief Financial Officer

**FIRST AMENDMENT TO AGREEMENT AND PLAN OF MERGER**

THIS FIRST AMENDMENT TO AGREEMENT AND PLAN OF MERGER, dated as of December 20, 2018 (the "Amendment"), is entered into by and among Arsanis, Inc., a Delaware corporation ("Public Company"), Artemis AC Corp., a Delaware corporation and a wholly-owned subsidiary of Public Company ("Merger Sub"), and X4 Pharmaceuticals, Inc., a Delaware corporation (the "Merger Partner" and together with Public Company and Merger Sub, the "Parties").

**RECITALS**

WHEREAS, the Parties have entered into an Agreement and Plan of Merger dated as of November 26, 2018 (the "Agreement");

WHEREAS, the Parties wish to amend the Agreement to, among other things, revise the treatment of the Merger Partner Stock Plans; and

WHEREAS, the Agreement may be amended by an instrument in writing signed on behalf of each of Public Company, Merger Sub and Merger Partner and authorized by each of their respective boards of directors.

**AGREEMENT**

THEREFORE, in consideration of the foregoing recitals (which are incorporated as an integral part hereof), the mutual agreements of the Parties set forth in the Agreement, and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the Parties hereby agree as follows:

1. Defined Terms. Capitalized terms used in this Amendment that are not otherwise defined shall have the meanings set forth in the Agreement.

2. Amendment of Section 2.3. Section 2.3 of the Agreement is hereby amended and restated in its entirety to read as follows:

“2.3 Merger Partner Stock Plans and Merger Partner Warrants.

(a) At the Effective Time, each outstanding option to purchase Merger Partner Common Stock (each, a "Merger Partner Stock Option" and collectively, the "Merger Partner Stock Options"), whether vested or unvested, and all stock option plans or other stock or equity-related plans of Merger Partner (the "Merger Partner Stock Plans") shall be assumed by Public Company and shall become an option to acquire, on the same terms and conditions as were applicable under such Merger Partner Stock Option immediately prior to the Effective Time, such number of shares of Public Company Common Stock as is equal to the number of shares of Merger Partner Common Stock subject to the unexercised portion of such Merger Partner Stock Option immediately prior to the Effective Time multiplied by the Common Stock Exchange Ratio (rounded down to the nearest whole share number), at an exercise price per share equal to the exercise price per share of such Merger Partner Stock Option immediately prior to the Effective Time divided by the Common Stock Exchange Ratio (rounded up to the nearest whole

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cent); provided that the assumption of each Merger Partner Stock Option pursuant to this Section 2.3(a) shall comply with all requirements of Sections 424 and 409A of the Code and the U.S. Department of Treasury regulations issued thereunder, as applicable. Such Merger Partner Stock Options shall continue in effect on the same terms and conditions to which they are currently subject (subject to the adjustments required by this Section 2.3 after giving effect to the Merger). Merger Partner shall, prior to the Effective Time, take all actions necessary or desirable (as reasonably determined by the Merger Partner) in connection with the treatment of Merger Partner Stock Options contemplated by this Section 2.3(a), including obtaining the consent from each holder of any Merger Partner Stock Options (if such consent is required under the terms of the applicable agreement, instrument or plan). At the Effective Time, Public Company shall assume the Merger Partner Stock Plans such that stock options and other equity-based awards may be issued with respect to the shares available for grant thereunder as of immediately prior to the Effective Time (subject to appropriate adjustment for the Common Stock Exchange Ratio) in respect of Public Company Common Stock under such Merger Partner Stock Plan or a Public Company Stock Plan.

(b) As soon as practicable after the Effective Time, Public Company shall deliver to the participants in Merger Partner Stock Plans appropriate notice setting forth such participants' rights pursuant to Merger Partner Stock Options, as provided in this Section 2.3.

(c) Public Company shall take all corporate action necessary to reserve for issuance a sufficient number of shares of Public Company Common Stock for delivery upon exercise of Merger Partner Stock Options and the issuance of stock options and other equity-based awards from the shares available for grant as of immediately prior to the Effective Time under the Merger Partner Stock Plans assumed in accordance with this Section 2.3. As promptly as practicable after the Effective Time but in no event later than five (5) Business Days following the Effective Time, Public Company shall file a registration statement on Form S-8 (or any successor form) or another appropriate form with respect to the shares of Public Company Common Stock subject to such options and such Merger Partner Stock Plans and shall use reasonable best efforts to maintain the effectiveness of such registration statement or registration statements (and maintain the current status of the prospectus or prospectuses contained therein) for so long as such options remain outstanding.

(d) Merger Partner shall terminate any employee stock purchase plans in accordance with their terms as of or prior to the Effective Time.

(e) At the Effective Time, by virtue of the Merger, each Merger Partner Warrant outstanding immediately prior to the Effective Time shall be automatically assumed by Public Company and shall become a warrant to acquire, on the same terms and conditions as were applicable under such Merger Partner Warrant, such number of shares of Public Company Common Stock as is equal to the number of shares of Merger Partner Common Stock subject to the unexercised portion of such Merger Partner Warrant immediately prior to the Effective Time multiplied by the Common Stock Exchange Ratio or the Preferred Stock Exchange Ratio, as the case may be (in each case, rounded down to the nearest whole share number, or as otherwise provided in the applicable Merger Partner Warrant), at an exercise price per share equal to the exercise price per share of such Merger Partner Warrant immediately prior to the Effective Time



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divided by the Common Stock Exchange Ratio or the Preferred Stock Exchange Ratio, as the case may be (in each case, rounded up to the nearest whole cent, or as otherwise provided in the applicable Merger Partner Warrant) (each, as so adjusted, an "Adjusted Warrant"). Merger Partner shall, prior to the Effective Time, take all actions necessary or desirable in connection with the treatment of Merger Partner Stock Warrants contemplated by this Section 2.3(e). Public Company shall take all corporate actions necessary to reserve for issuance of shares of Public Company Common Stock that will be subject to the Adjusted Warrants."

3. Effective Date of this Amendment. This Amendment shall be effective when signed by the Parties hereto.

4. Reference to the Agreement. On and after the effective date of this Amendment, each reference in the Agreement to "the Agreement," "this Agreement," "hereunder" and "hereof" or words of like import shall refer to the Agreement as amended by this Amendment. The Agreement, as amended by this Amendment, is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed.

5. Governing Law. All matters arising out of or relating to this Amendment (including its interpretation, construction, performance and enforcement) shall be governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of laws of any jurisdictions other than those of the State of Delaware.

6. Entire Agreement. The Agreement (including the Schedules, Annexes and Exhibits thereto and the documents and instruments referred to therein that are to be delivered at the Closing), as amended by this Amendment, constitutes the entire agreement among the Parties and supersedes any prior understandings, agreements or representations by or among the Parties, or any of them, written or oral, with respect to the subject matter thereof and hereof and the Parties expressly disclaim reliance on any such prior understandings, agreements or representations to the extent not embodied in the Agreement. Notwithstanding the foregoing, the Confidentiality Agreement shall remain in effect in accordance with its terms.

7. Counterparts. This Amendment may be executed in two or more counterparts (including by facsimile or by an electronic scan delivered by electronic mail), each of which shall be deemed an original but all of which together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each of the Parties and delivered to the other Parties, it being understood that all Parties need not sign the same counterpart. This Amendment may be executed and delivered by facsimile or by an electronic scan delivered by electronic mail.

*[Remainder of Page Intentionally Left Blank]*

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IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ARSANIS, INC.

By: /s/ Michael Gray  
Name: Michael Gray  
Title: President and Chief Executive Officer and Chief  
Financial Officer

ARTEMIS AC CORP.

By: /s/ Michael Gray  
Name: Michael Gray  
Title: President

X4 PHARMACEUTICALS, INC.

By: /s/ Paula Ragan  
Name: Paula Ragan, Ph.D.  
Title: President & Chief Executive Officer

[Signature Page to First Amendment to Agreement and Plan of Merger]