

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>ORBIMED ADVISORS LLC</u> (Last) (First) (Middle) 601 LEXINGTON AVE., 54TH FLOOR (Street) NEW YORK NY 10022 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 11/15/2017	3. Issuer Name and Ticker or Trading Symbol <u>Arsanis, Inc. [ASNS]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A-1 Convertible Preferred Stock	(1)	(1)	Common Stock	19,533	(1)	I	See Footnotes ⁽⁶⁾⁽⁷⁾
Series A-2 Convertible Preferred Stock	(2)	(2)	Common Stock	252,230	(2)	I	See Footnotes ⁽⁶⁾⁽⁷⁾
Series B Convertible Preferred Stock	(3)	(3)	Common Stock	328,909	(3)	I	See Footnotes ⁽⁶⁾⁽⁷⁾
Series C Convertible Preferred Stock	(4)	(4)	Common Stock	114,320	(4)	I	See Footnotes ⁽⁶⁾⁽⁷⁾
Series D Convertible Preferred Stock	(5)	(5)	Common Stock	653,974	(5)	I	See Footnotes ⁽⁶⁾⁽⁷⁾

1. Name and Address of Reporting Person*
ORBIMED ADVISORS LLC
 (Last) (First) (Middle)
 601 LEXINGTON AVE., 54TH FLOOR
 (Street)
 NEW YORK NY 10022
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
OrbiMed Capital GP IV LLC
 (Last) (First) (Middle)
 601 LEXINGTON AVE, 54TH FLOOR
 (Street)
 NEW YORK NY 10022
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
ISALY SAMUEL D
 (Last) (First) (Middle)
 601 LEXINGTON AVE, 54TH FLOOR
 (Street)
 NEW YORK NY 10022
 (City) (State) (Zip)

(Street)	NEW YORK	NY	10022
(City)	(State)	(Zip)	

Explanation of Responses:

1. The Series A-1 Convertible Preferred Stock is convertible into Common Stock on a 0.29300-for-one basis into the number of shares of Common Stock shown in column 3 at any time at the holder's election and automatically upon the closing of the Issuer's initial public offering without payment of further consideration. The shares have no expiration date.
2. The Series A-2 Convertible Preferred Stock is convertible into Common Stock on a 0.35785-for-one basis into the number of shares of Common Stock shown in column 3 at any time at the holder's election and automatically upon the closing of the Issuer's initial public offering without payment of further consideration. The shares have no expiration date.
3. The Series B Convertible Preferred Stock is convertible into Common Stock on a 0.44650-for-one basis into the number of shares of Common Stock shown in column 3 at any time at the holder's election and automatically upon the closing of the Issuer's initial public offering without payment of further consideration. The shares have no expiration date.
4. The Series C Convertible Preferred Stock is convertible into Common Stock on a 0.49832-for-one basis into the number of shares of Common Stock shown in column 3 at any time at the holder's election and automatically upon the closing of the Issuer's initial public offering without payment of further consideration. The shares have no expiration date.
5. The Series D Convertible Preferred Stock is convertible into Common Stock on a 0.29300-for-one basis into the number of shares of Common Stock shown in column 3 at any time at the holder's election and automatically upon the closing of the Issuer's initial public offering without payment of further consideration. The shares have no expiration date.
6. The reported securities are held of record by OrbiMed Private Investments IV, LP ("OPI IV"), OrbiMed Capital GP IV LLC ("GP IV") is the sole general partner of OPI IV, and OrbiMed Advisors LLC ("Advisors"), a registered adviser under the Investment Advisers Act of 1940, as amended, is the sole managing member of GP IV. Samuel D. Isaly ("Isaly"), a natural person, is the managing member of, and owner of a controlling interest in, Advisors. By virtue of such relationships, GP IV, Advisors and Isaly may be deemed to have voting and investment power with respect to the securities held by OPI IV. The Reporting Persons have designated a representative, currently Carl Gordon, a member of Advisors, to serve on the Issuer's board of directors.
7. This report on Form 3 is jointly filed by GP IV, Advisors and Isaly. Each of the reporting persons disclaims beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), except to the extent of its or his pecuniary interest therein, if any. This report on Form 3 shall not be deemed an admission that any of the reporting persons is a beneficial owner of such securities for the purpose of Section 16 of the Exchange Act, or for any other purpose.

Remarks:

/s/ Samuel D. Isaly, as
managing member of OrbiMed 11/15/2017
Advisors LLC

/s/ Samuel D. Isaly, as
managing member of OrbiMed
Advisors LLC, the managing 11/15/2017
member of OrbiMed Capital
GP IV LLC

/s/ Samuel D. Isaly 11/15/2017

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.