

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>Polaris Venture Management Co. V, L.L.C.</u> (Last) (First) (Middle) ONE MARINA PARK DRIVE, 10TH FLOOR (Street) BOSTON MA 02210 (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	18,848	(1)	I	See Footnotes ⁽²⁾⁽³⁾
Series A-1 Convertible Preferred Stock	(1)	(1)	Common Stock	367	(1)	I	See Footnote ⁽⁴⁾
Series A-1 Convertible Preferred Stock	(1)	(1)	Common Stock	129	(1)	I	See Footnote ⁽⁵⁾
Series A-1 Convertible Preferred Stock	(1)	(1)	Common Stock	188	(1)	I	See Footnote ⁽⁶⁾
Series A-2 Convertible Preferred Stock	(7)	(7)	Common Stock	243,385	(7)	I	See Footnotes ⁽²⁾⁽³⁾
Series A-2 Convertible Preferred Stock	(7)	(7)	Common Stock	4,743	(7)	I	See Footnote ⁽⁴⁾
Series A-2 Convertible Preferred Stock	(7)	(7)	Common Stock	1,667	(7)	I	See Footnote ⁽⁵⁾
Series A-2 Convertible Preferred Stock	(7)	(7)	Common Stock	2,433	(7)	I	See Footnote ⁽⁶⁾
Series B Convertible Preferred Stock	(8)	(8)	Common Stock	317,376	(8)	I	See Footnotes ⁽²⁾⁽³⁾
Series B Convertible Preferred Stock	(8)	(8)	Common Stock	6,185	(8)	I	See Footnote ⁽⁴⁾
Series B Convertible Preferred Stock	(8)	(8)	Common Stock	2,173	(8)	I	See Footnote ⁽⁵⁾
Series B Convertible Preferred Stock	(8)	(8)	Common Stock	3,173	(8)	I	See Footnote ⁽⁶⁾
Series C Convertible Preferred Stock	(9)	(9)	Common Stock	110,312	(9)	I	See Footnotes ⁽²⁾⁽³⁾
Series C Convertible Preferred Stock	(9)	(9)	Common Stock	2,150	(9)	I	See Footnote ⁽⁴⁾
Series C Convertible Preferred Stock	(9)	(9)	Common Stock	755	(9)	I	See Footnote ⁽⁵⁾
Series C Convertible Preferred Stock	(9)	(9)	Common Stock	1,102	(9)	I	See Footnote ⁽⁶⁾
Series D Convertible Preferred Stock	(10)	(10)	Common Stock	631,041	(10)	I	See Footnotes ⁽²⁾⁽³⁾
Series D Convertible Preferred Stock	(10)	(10)	Common Stock	12,298	(10)	I	See Footnote ⁽⁴⁾
Series D Convertible Preferred Stock	(10)	(10)	Common Stock	4,322	(10)	I	See Footnote ⁽⁵⁾
Series D Convertible Preferred Stock	(10)	(10)	Common Stock	6,310	(10)	I	See Footnote ⁽⁶⁾

1. Name and Address of Reporting Person* <u>Polaris Venture Management Co. V, L.L.C.</u> (Last) (First) (Middle)
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ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Polaris Venture Partners V, L.P.](#)

(Last)

(First)

(Middle)

ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Polaris Venture Partners Entrepreneurs' Fund V, L.P.](#)

(Last)

(First)

(Middle)

ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Polaris Venture Partners Founders' Fund V, L.P.](#)

(Last)

(First)

(Middle)

ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Polaris Venture Partners Special Founders' Fund V, L.P.](#)

(Last)

(First)

(Middle)

ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flint Jonathan A](#)

(Last)

(First)

(Middle)

ONE MARINA PARK DRIVE, 10TH FLOOR

(Street)

BOSTON MA 02210

(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. These shares are owned directly by Polaris Venture Partners V, L.P. ("Polaris V"), whose general partner is Polaris Venture Management Co. V, L.L.C. ("Polaris Management"). Each of Jonathan A. Flint ("Flint") and Terrance G. McGuire ("McGuire"), who is a member of the Issuer's Board of Directors and whose beneficial ownership is reported on a separate Form 3, are the managing members of Polaris Management and may each be deemed to share voting and dispositive power with respect to the shares held by each of Polaris V, Polaris Venture Partners Entrepreneurs' Fund V, L.P. ("Polaris Entrepreneurs' V"), Polaris Venture Partners Founders' Fund V, L.P. ("Polaris Founders' V") and Polaris Venture Partners Special Founders' Fund V, L.P. ("Polaris Special Founders' V", and together with Polaris V, Polaris Entrepreneurs' V and Polaris Founders' V, the "Polaris V Funds"). Polaris Management may be deemed to have sole power to vote and dispose of the shares held by the Polaris V Funds.

3. (Continued from footnote 2) Each of Flint, McGuire and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their respective pecuniary interests therein.
4. These shares are owned directly by Polaris Entrepreneurs' V, whose general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management and may each be deemed to share voting and dispositive power over the shares held by each of the Polaris V Funds. Polaris Management may be deemed to have sole power to vote and dispose of the shares held by the Polaris V Funds. Each of Flint, McGuire and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their respective pecuniary interests therein.
5. These shares are owned directly by Polaris Founders' V, whose general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management and may each be deemed to share voting and dispositive power over the shares held by each of the Polaris V Funds. Polaris Management may be deemed to have sole power to vote and dispose of the shares held by the Polaris V Funds. Each of Flint, McGuire and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their respective pecuniary interests therein.
6. These shares are owned directly by Polaris Special Founders' V, whose general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management and, may each be deemed to share voting and dispositive power over the shares held by each of the Polaris V Funds. Polaris Management may be deemed to have sole power to vote and dispose of the shares held by the Polaris V Funds. Each of Flint, McGuire and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their respective pecuniary interests therein.
7. 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.
8. 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.
9. 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.
10. 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.

Remarks:

<u>/s/ Max Eisenberg, Attorney-in-Fact for Polaris Ventures Management Co. V., L.L.C.</u>	<u>11/15/2017</u>
<u>/s/ Max Eisenberg, Attorney-in-Fact for Polaris Venture Partners V, L.P.</u>	<u>11/15/2017</u>
<u>/s/ Max Eisenberg, Attorney-in-Fact for Polaris Venture Partners Entrepreneurs' Fund V, L.P.</u>	<u>11/15/2017</u>
<u>/s/ Max Eisenberg, Attorney-in-Fact for Polaris Venture Partners Founders' Fund V</u>	<u>11/15/2017</u>
<u>/s/ Max Eisenberg, Attorney-in-Fact for Polaris Venture Partners Special Founders' Fund V, L.P.</u>	<u>11/15/2017</u>
<u>/s/ Max Eisenberg, Attorney-in-Fact for Jonathan Flint</u>	<u>11/15/2017</u>
** 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.