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

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. _____)*

MAGENTA THERAPEUTICS, INC.

(Name of Issuer)

COMMON STOCK, \$0.001 PAR VALUE

(Title of Class of Securities)

55910K108

(CUSIP Number)

DECEMBER 31, 2018

(Date of Event Which Requires Filing of This Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1.	Name of Reporting Persons	
	Atlas Venture Fund X, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input type="checkbox"/>	
	(b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization	
	Delaware	
	5.	Sole Voting Power
		0
	6.	Shared Voting Power
		4,843,625 ¹
	7.	Sole Dispositive Power
		0
	8.	Shared Dispositive Power
		4,843,625 ¹
9.	Aggregate Amount Beneficially Owned by Each Reporting Person	
		4,843,625 ¹
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9)	
		14.6% ²
12.	Type of Reporting Person (See Instructions)	
		PN

(1) As described in Item 5 below, Atlas Venture Fund X, L.P., a Delaware limited partnership (“Atlas X”), Atlas Venture Associates X, L.P., a Delaware limited partnership (“AVA X LP”) and Atlas Venture Associates X, LLC, a Delaware limited liability company (“AVA X LLC” and together with Atlas X and AVA X LP, the “Reporting Persons”) beneficially own 4,843,625 shares of the Issuer’s Common Stock. All of these shares are directly held by Atlas X. AVA X LP is the general partner of Atlas X and AVA X LLC is the general partner of AVA X LP. Each of AVA X LP and AVA X LLC has voting and dispositive power over the shares held by Atlas X. As such, each of the Reporting Persons share voting and dispositive power with respect to the shares held by Atlas X.

(2) This percentage is calculated based upon 33,151,539 outstanding shares of Common Stock of the Issuer as of October 31, 2018, as reported in the Issuer’s quarterly report on Form 10-Q for the quarter ended September 30, 2018 and filed with the Securities and Exchange Commission on November 8, 2018.

1.	Name of Reporting Persons	
	Atlas Venture Associates X, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input type="checkbox"/>	
	(b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization	
	Delaware	
	5.	Sole Voting Power
		0
	6.	Shared Voting Power
		4,843,625 ¹
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(2) This percentage is calculated based upon 33,151,539 outstanding shares of Common Stock of the Issuer as of October 31, 2018, as reported in the Issuer’s quarterly report on Form 10-Q for the quarter ended September 30, 2018 and filed with the Securities and Exchange Commission on November 8, 2018.

1.	Name of Reporting Persons	
	Atlas Venture Associates X, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input type="checkbox"/>	
	(b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization	
	Delaware	
	5.	Sole Voting Power
		0
	6.	Shared Voting Power
		4,843,625 ¹
	7.	Sole Dispositive Power
		0
	8.	Shared Dispositive Power
		4,843,625 ¹
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		4,843,625 ¹
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9)	
		14.6% ²
12.	Type of Reporting Person (See Instructions)	
		OO

(1) As described in Item 5 below, Atlas Venture Fund X, L.P., a Delaware limited partnership (“Atlas X”), Atlas Venture Associates X, L.P., a Delaware limited partnership (“AVA X LP”) and Atlas Venture Associates X, LLC, a Delaware limited liability company (“AVA X LLC” and together with Atlas X and AVA X LP, the “Reporting Persons”) beneficially own 4,843,625 shares of the Issuer’s Common Stock. All of these shares are directly held by Atlas X. AVA X LP is the general partner of Atlas X and AVA X LLC is the general partner of AVA X LP. Each of AVA X LP and AVA X LLC has voting and dispositive power over the shares held by Atlas X. As such, each of the Reporting Persons share voting and dispositive power with respect to the shares held by Atlas X.

(2) This percentage is calculated based upon 33,151,539 outstanding shares of Common Stock of the Issuer as of October 31, 2018, as reported in the Issuer’s quarterly report on Form 10-Q for the quarter ended September 30, 2018 and filed with the Securities and Exchange Commission on November 8, 2018.

Item 1(a) Name of Issuer

Magenta Therapeutics, Inc. (the "Issuer")

Item 1(b) Address of Issuer's Principal Executive Offices

50 Hampshire Street
Cambridge, MA 02139

Item 2(a) Name of Person Filing

This Schedule 13G is filed by (i) Atlas Venture Fund X, L.P., a Delaware limited partnership ("Atlas X"), (ii) Atlas Venture Associates X, L.P., a Delaware limited partnership ("AVA X LP") and (iii) Atlas Venture Associates X, LLC, a Delaware limited liability company ("AVA X LLC" and together with Atlas X and AVA X LP, the "Reporting Persons").

Item 2(b) Address of Principal Business Office or, if none, Residence

400 Technology Square, 10th Floor
Cambridge, Massachusetts 02139.

Item 2(c) Citizenship

Each of Atlas X and AVA X LP is a Delaware limited partnership. AVA X LLC is a Delaware limited liability company.

Item 2(d) Title of Class of Securities

Common Stock, \$0.001 par value

Item 2(e) CUSIP Number

55910K108

Item 3

Not applicable.

Item 4 Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1

(a) Amount beneficially owned: Atlas X is the record owner of 4,843,625 shares of Common Stock. AVA X LP is the general partner of Atlas X and AVA X LLC is the general partner of AVA X LP. Each of Atlas X, AVA X LP and AVA X LLC has shared voting and dispositive power over the shares held by Atlas X. As such, each of Atlas X, AVA X LP and AVA X LLC may be deemed to beneficially own the shares held by Atlas X.

(b) Percent of class: Each of the Reporting Persons may be deemed to beneficially own 14.6% of the Issuer's outstanding Common Stock, which percentage is calculated based upon 33,151,539 outstanding shares of Common Stock of the Issuer as of October 31, 2018, as reported in the Issuer's quarterly report on Form 10-Q for the quarter ended September 30, 2018 and filed with the Securities and Exchange Commission on November 8, 2018.

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote: None of the Reporting Persons have the sole power to direct the vote of the Common Stock.

(ii) Shared power to vote or to direct the vote: Each Reporting Person shares power to vote or direct the vote of 4,843,625 shares of Common Stock.

(iii) Sole power to dispose or to direct the disposition of: None of the Reporting Persons have the sole power to dispose or to direct the disposition of the Common Stock.

(iv) Shared power to dispose or to direct the disposition of: Each Reporting Person shares power to dispose or to direct the disposition of 4,843,625 shares of Common Stock.

Item 5 Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following.

Item 6 Ownership of More than Five Percent of Another Person

Not applicable.

Item 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company

Not applicable.

Item 8 Identification and Classification of Members of the Group

Not applicable.

Item 9 Notice of Dissolution of Group

Not applicable.

Item 10 Certification

Not applicable.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 13, 2019.

ATLAS VENTURE FUND X, L.P.

By: Atlas Venture Associates X, L.P., its general partner

By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

ATLAS VENTURE ASSOCIATES X, L.P.

By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

ATLAS VENTURE ASSOCIATES X, LLC

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

EXHIBITS

A: Joint Filing Agreement

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of Magenta Therapeutics, Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

IN WITNESS WHEREOF, the undersigned have executed this Joint Filing Agreement as of February 13, 2019.

ATLAS VENTURE FUND X, L.P.

By: Atlas Venture Associates X, L.P., its general partner
By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

ATLAS VENTURE ASSOCIATES X, L.P.

By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

ATLAS VENTURE ASSOCIATES X, LLC

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO
