ACCELERON PHARMA INC Form SC 13G/A February 13, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13G/A

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 1)*

ACCELERON PHARMA INC.

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

00434H108

(CUSIP Number)

December 31, 2014

(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)
- x 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).

CUSIP No. 00434H108			
1.	Name	of Re	eporting Persons
2.		the A	artners, L.P. Appropriate Box if a Member of a Group (See Instructions) (b) "
3.	SEC U	SE (ONLY
4.	Citizen	ıship	or Place of Organization
	Delawa	are 5.	Sole Voting Power
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	ares ficially	6.	0 Shared Voting Power
Own	ned by	7.	1,494,440 ² Sole Dispositive Power
Rep	orting		
	rson	8.	0 Shared Dispositive Power
W	ith:		
9.	Aggreg	gate A	1,494,440 ² Amount Beneficially Owned by Each Reporting Person
10.	1,494,4 Check		e Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) "

11.

Page 2 of 13

 $4.6\%^{3}$

12. Type of Reporting Person (See Instructions)

PN

- Venrock Partners, L.P., Venrock Associates IV, L.P., Venrock Entrepreneurs Fund IV, L.P., Venrock Partners Management, LLC (the general partner of Venrock Partners, L.P.), Venrock Management IV, LLC (the general partner of Venrock Associates IV, L.P.) and VEF Management IV, LLC (the general partner of Venrock Entrepreneurs Fund IV, L.P.) are members of a group for purposes of this Schedule 13G.
- Consists of 248,078 shares of common stock owned by Venrock Partners, L.P., 1,216,746 shares of common stock owned by Venrock Associates IV, L.P., and 29,616 shares of common stock owned by Venrock Entrepreneurs Fund IV, L.P.
- This percentage is calculated based upon 32,253,193 shares of the Issuer s common stock outstanding as of October 31, 2014, as set forth in the Issuer s quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 7, 2014.

CUS	CUSIP No. 00434H108			
1.	Name o	of Re	eporting Persons	
2.	Check	the A	ssociates IV, L.P. Appropriate Box if a Member of a Group (See Instructions)	
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CUS	CUSIP No. 00434H108			Page 4 of 13
1.	Name	of Re	eporting Persons	
2.			ntrepreneurs Fund IV, L.P. Appropriate Box if a Member of a Group (See Instructions)	
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CUSIP No. 00434H108			Page 5	
1.	Name	of R	eporting Persons	
2.		the A	artners Management, LLC Appropriate Box if a Member of a Group (See Instructions) (b) "	
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CUSI	CUSIP No. 00434H108		
1.	Name o	of Re	porting Persons
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CUS	CUSIP No. 00434H108		Page 7 of 13	
1.	Name	of Re	eporting Persons	
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Page 8 of 13

Introductory Note: This Statement on Schedule 13G/A is filed on behalf of Venrock Partners, L.P., a limited partnership organized under the laws of the State of Delaware (VP), Venrock Associates IV, L.P., a limited partnership organized under the laws of the State of Delaware (Venrock IV), Venrock Entrepreneurs Fund IV, L.P., a limited partnership organized under the laws of the State of Delaware (Entrepreneurs Fund), Venrock Partners Management, LLC, a limited liability company organized under the laws of the State of Delaware (VP Management), Venrock Management IV, LLC, a limited liability company organized under the laws of the State of Delaware (Venrock Management) and VEF Management IV, LLC, a limited liability company organized under the laws of the State of Delaware (VEF Management and collectively with VP, Venrock IV, Entrepreneurs Fund and Venrock Management, the Venrock Entities) in respect of shares of common stock of Acceleron Pharma Inc.

Item 1.

- (a) Name of Issuer Acceleron Pharma Inc.
- (b) Address of Issuer s Principal Executive Offices 128 Sydney Street

Cambridge, MA 02139

Item 2.

(a) Name of Person Filing Venrock Partners, L.P.

Venrock Associates IV, L.P.

Venrock Entrepreneurs Fund IV, L.P.

Venrock Partners Management, LLC

Venrock Management IV, LLC

VEF Management IV, LLC

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

New York Office: Palo Alto Office: Cambridge Office:

530 Fifth Avenue 3340 Hillview Avenue 55 Cambridge Parkway

22nd Floor Palo Alto, CA 94304 Suite 100

New York, NY 10036 Cambridge, MA 02142

(c) Citizenship

Each of VP, Venrock IV and Entrepreneurs Fund are limited partnerships organized in the State of Delaware. Each of VP Management, Venrock Management and VEF Managament are limited liability companies organized in the State of Delaware.

(d) Title of Class of Securities Common Stock

(e) CUSIP Number 00434H108

Item 3. If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable

Page 9 of 13

Item 4. Ownership

(a) Amount Beneficially Owned as of December 31, 2014:

Venrock Partners, L.P.	1,494,440(1)
Venrock Associates IV, L.P.	1,494,440(1)
Venrock Entrepreneurs Fund IV, L.P.	1,494,440(1)
Venrock Partners Management, LLC	1,494,440(1)
Venrock Management IV, LLC	1,494,440(1)
VEF Management IV, LLC	1.494.440(1)

(b) Percent of Class as of December 31, 2014:

Venrock Partners, L.P.	4.6%
Venrock Associates IV, L.P.	4.6%
Venrock Entrepreneurs Fund IV, L.P.	4.6%
Venrock Partners Management, LLC	4.6%
Venrock Management IV, LLC	4.6%
VEF Management IV, LLC	4.6%

- (c) Number of shares as to which the person has, as of December 31, 2014:
- (i) Sole power to vote or to direct the vote

Venrock Partners, L.P.	0
Venrock Associates IV, L.P.	0
Venrock Entrepreneurs Fund IV, L.P.	0
Venrock Partners Management, LLC	0
Venrock Management IV, LLC	0
VEF Management IV, LLC	0

(ii) Shared power to vote or to direct the vote

Venrock Partners, L.P.	1,494,440(1)
Venrock Associates IV, L.P.	1,494,440(1)
Venrock Entrepreneurs Fund IV, L.P.	1,494,440(1)
Venrock Partners Management, LLC	1,494,440(1)
Venrock Management IV, LLC	1,494,440(1)
VEF Management IV, LLC	1,494,440(1)

(IV) Sole power to dispose or to direct the disposition of

Venrock Partners, L.P.	0
Venrock Associates IV, L.P.	0
Venrock Entrepreneurs Fund IV, L.P.	0
Venrock Partners Management, LLC	0

	Venrock Management IV, LLC	0
	VEF Management IV, LLC	0
(iv)	Shared power to dispose or to direct the disposition of	
	Venrock Partners, L.P.	1,494,440(1)
	Venrock Associates IV, L.P.	1,494,440(1)
	Venrock Entrepreneurs Fund IV, L.P.	1,494,440(1)
	Venrock Partners Management, LLC	1,494,440(1)
	Venrock Management IV, LLC	1,494,440(1)
	VEF Management IV, LLC	1,494,440(1)

(1) These shares are owned directly as follows: 248,078 shares of common stock are owned by Venrock Partners, L.P., 1,216,746 shares of common stock are owned by Venrock Associates IV, L.P., and 29,616 shares of common stock are owned by Venrock Entrepreneurs Fund IV, L.P.

Page 10 of 13

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 x.

Item 6. Ownership of More than Five Percent on Behalf 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 or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group

Not Applicable

Item 9. Notice of Dissolution of a Group

Not Applicable

Item 10. Certification

Not Applicable

Page 11 of 13

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, 2015

Venrock Partners, L.P.

Venrock Management IV, LLC

By: Venrock Partners Management, LLC

Its General Partner By: /s/ David L. Stepp

Authorized Signatory

By: /s/ David L. Stepp Authorized Signatory

Venrock Associates IV, L.P.

VEF Management IV, LLC

By: Venrock Management IV, LLC

Its General Partner By: /s/ David L. Stepp

Authorized Signatory

By: /s/ David L. Stepp Authorized Signatory

Venrock Entrepreneurs Fund IV, L.P.

Venrock Partners Management, LLC

By: VEF Management IV, LLC

Its General Partner By: /s/ David L. Stepp

Authorized Signatory

By: /s/ David L. Stepp Authorized Signatory

Page 12 of 13

EXHIBITS

A: Joint Filing Agreement (incorporated by reference from Exhibit A to Schedule 13G filed on February 14, 2014).