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

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. 3)\*

**Aimmune Therapeutics, Inc.**

(Name of Issuer)

**Common Stock, par value \$0.0001 per share**

(Title of Class of Securities)

**00900T107**

(CUSIP Number)

**December 31, 2017**

(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 disclosures provided in a prior cover page.

The information required on 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).

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1. NAMES OF REPORTING PERSONS	
Longitude Capital Partners II, LLC	
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)	
	(a) <input type="checkbox"/>
	(b) <input type="checkbox"/>
3. SEC USE ONLY	
4. CITIZENSHIP OR PLACE OF ORGANIZATION	
Delaware	
	5. SOLE VOTING POWER
	0
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	6. SHARED VOTING POWER
	6,013,134 (1)
	7. SOLE DISPOSITIVE POWER
	0
	8. SHARED DISPOSITIVE POWER
	6,013,134 (1)
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
6,013,134 (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)	
11.8% (2)	
12. TYPE OF REPORTING PERSON (see instructions)	
OO	

(1) All such shares are held of record by LVPII.

(2) Based on 50,863,611 shares of Common Stock outstanding as of October 31, 2017, as reported by the Issuer in its Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed by the Issuer with the Securities and Exchange Commission on November 6, 2017.

1. NAMES OF REPORTING PERSONS	
Longitude Venture Partners II, L.P.	
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)	
	(a) <input type="checkbox"/>
	(b) <input type="checkbox"/>
3. SEC USE ONLY	
4. CITIZENSHIP OR PLACE OF ORGANIZATION	
Delaware	
	5. SOLE VOTING POWER
	0
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	6. SHARED VOTING POWER
	6,013,134 (1)
	7. SOLE DISPOSITIVE POWER
	0
	8. SHARED DISPOSITIVE POWER
	6,013,134 (1)
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
6,013,134 (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)	
11.8% (2)	
12. TYPE OF REPORTING PERSON (see instructions)	
PN	

(1) All such shares are held of record by LVPII.

(2) Based on 50,863,611 shares of Common Stock outstanding as of October 31, 2017, as reported by the Issuer in its Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed by the Issuer with the Securities and Exchange Commission on November 6, 2017.

1. NAMES OF REPORTING PERSONS	
Juliet Tammenoms Bakker	
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)	
(a) <input type="checkbox"/>	
(b) <input type="checkbox"/>	
3. SEC USE ONLY	
4. CITIZENSHIP OR PLACE OF ORGANIZATION	
United States of America	
5. SOLE VOTING POWER	
7,276 (1)	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	6. SHARED VOTING POWER
	6,151,159 (2)
	7. SOLE DISPOSITIVE POWER
	7,276 (1)
8. SHARED DISPOSITIVE POWER	
6,151,159 (2)	
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
6,158,435 (1)(2)	
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)	
12.1% (3)	
12. TYPE OF REPORTING PERSON (see instructions)	
IN	

(1) All such shares are held of record by Ms. Bakker.

(2) Consists of (i) 138,025 shares of Common Stock subject to stock option awards that have been granted to Mr. Enright in his capacity as a director of the Issuer and that are exercisable as of or within 60 days after December 31, 2017, and (ii) 6,013,134 shares of Common Stock held of record by LVPII.

(3) Based on 51,001,636 shares of Common Stock, calculated as follows: (i) 138,025 shares of Common Stock subject to stock option awards that have been granted to Mr. Enright in his capacity as a director of the Issuer and that are exercisable as of or within 60 days after December 31, 2017, plus (ii) 50,863,611 shares of Common Stock outstanding as of October 31, 2017, as reported by the Issuer in its Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed by the Issuer with the Securities and Exchange Commission on November 6, 2017.

1. NAMES OF REPORTING PERSONS	
Patrick G. Enright	
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)	
	(a) <input type="checkbox"/>
	(b) <input type="checkbox"/>
3. SEC USE ONLY	
4. CITIZENSHIP OR PLACE OF ORGANIZATION	
United States of America	
	5. SOLE VOTING POWER
	7,276 (1)
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	6. SHARED VOTING POWER
	6,151,159 (2)
	7. SOLE DISPOSITIVE POWER
	7,276 (1)
	8. SHARED DISPOSITIVE POWER
	6,151,159 (2)
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
6,158,435 (1)(2)	
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)	
12.1% (3)	
12. TYPE OF REPORTING PERSON (see instructions)	
IN	

(1) All such shares are held of record by Mr. Enright.

(2) Consists of (i) 138,025 shares of Common Stock subject to stock option awards that have been granted to Mr. Enright in his capacity as a director of the Issuer and that are exercisable as of or within 60 days after December 31, 2017, and (ii) 6,013,134 shares of Common Stock held of record by LVPII.

(2) Based on 51,001,636 shares of Common Stock, calculated as follows: (i) 138,025 shares of Common Stock subject to stock option awards that have been granted to Mr. Enright in his capacity as a director of the Issuer and that are exercisable as of or within 60 days after December 31, 2017, plus (ii) 50,863,611 shares of Common Stock outstanding as of October 31, 2017, as reported by the Issuer in its Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed by the Issuer with the Securities and Exchange Commission on November 6, 2017.

**Item 1(a). Name of Issuer:**

Aimmune Therapeutics, Inc. (the "Issuer")

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

8000 Marina Boulevard, Suite 300  
Brisbane, California 94005

**Item 2(a). Name of Person Filing:**

This Amendment No. 3 to the Schedule 13G initially filed January 29, 2016 (the "Statement") is being jointly filed by the following reporting persons (each a "Reporting Person" and collectively the "Reporting Persons"): Longitude Venture Partners II, L.P. ("LVPII"); LVPII's sole general partner, Longitude Capital Partners II, LLC ("LCPII"); and LCPII's two managing members, Ms. Juliet Tammenoms Bakker and Mr. Patrick G. Enright.

The Reporting Persons have entered into a Joint Filing Agreement, dated January 29, 2016, a copy of which has been filed as Exhibit A to the Statement, pursuant to which the Reporting Persons have agreed to file the Statement and all amendments thereto jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act.

**Item 2(b). Address of Principal Business Office, or if None, Residence:**

The address of the principal business office of each Reporting Person is 2740 Sand Hill Road, Second Floor, Menlo Park, California 94025.

**Item 2(c). Citizenship:**

LCPII is a limited liability company organized under the laws of the State of Delaware. LVPII is a limited partnership organized under the laws of the State of Delaware. Ms. Bakker and Mr. Enright are citizens of the United States of America.

**Item 2(d). Title of Class of Securities:**

Common Stock, par value \$0.0001 per share ("Common Stock").

**Item 2(e). CUSIP Number:**

00900T107.

**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.

**Item 4. Ownership.**

- (a) Amount beneficially owned:  
See Row 9 of the cover page for each Reporting Person.\*
- (b) Percent of class:  
See Row 11 of the cover page for each Reporting Person.
- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote  
See Row 5 of the cover page for each Reporting Person.\*

- (ii) Shares power to vote or to direct the vote  
See Row 6 of the cover page for each Reporting Person.\*
- (iii) Sole power to dispose or to direct the disposition of  
See Row 7 of the cover page for each Reporting Person.\*
- (iv) Shared power to dispose or to direct the disposition of  
See Row 8 of the cover page for each Reporting Person.\*

therein. \* Each of the Reporting Persons disclaims beneficial ownership as to such securities, except to the extent of his, her or its pecuniary interest

**Item 5. Ownership of Five Percent or Less of a Class.**

Not applicable.

**Item 6. Ownership of More Than Five Percent on Behalf of Another Person.**

The response to Item 2(a) of this Statement is incorporated herein by reference.

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

The response to Item 2(a) of this Statement is incorporated herein by reference.

**Item 8. Identification and Classification of Members of the Group.**

Not applicable.

**Item 9. Notice of Dissolution of the Group.**

Not applicable.

**Item 10. Certifications.**

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 12, 2018

LONGITUDE VENTURE PARTNERS II, L.P.

By: Longitude Capital Partners II, LLC  
Its: General Partner

By: /s/ Patrick G. Enright  
Patrick G. Enright  
Its: Managing Member

LONGITUDE CAPITAL PARTNERS II, LLC

By: /s/ Patrick G. Enright  
Patrick G. Enright  
Its: Managing Member

/s/ Patrick G. Enright  
Patrick G. Enright

/s/ Juliet Tammenoms Bakker  
Juliet Tammenoms Bakker