SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 1)*

Aura Biosciences, Inc.

(Name of Issuer)

Common Stock, par value $0.00001 per share

(Title of Class of Securities)

(CUSIP Number)

09/30/2026

(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)

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons TCG Crossover GP II, LLC
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)
3	Sec Use Only
4	Citizenship or Place of Organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,211,368.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,211,368.00
9		Aggregate Amount Beneficially Owned by Each Reporting Person 5,211,368.00
10		Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐
11		Percent of class represented by amount in row (9) 5.0 %
12		Type of Reporting Person (See Instructions) OO

Comment for Type of Reporting Person: Consists of (i) 5,082,680 shares of Common Stock and (ii) 128,688 shares of Common Stock subject to Pre-Funded Warrants (Pre-Funded Warrants) which are exercisable within 60 days of this Statement. These securities are held of record by TCG Crossover II (as defined in Item 2(a) below). TCG Crossover GP II (as defined in Item 2(a) below) is the general partner of TCG Crossover II and may be deemed to have voting, investment, and dispositive power with respect to these securities. Chen Yu is the sole managing member of TCG Crossover GP II and may be deemed to share voting, investment and dispositive power with respect to these securities. This total excludes 1,771,312 shares of Common Stock subject to Pre-Funded Warrants (the Pre-Funded Warrants) which are not exercisable within 60 days of this Statement because the Pre-Funded Warrants may not be exercised to the extent that doing so would result in the holder of the Pre-Funded Warrants and (together with the holder's affiliates and any other persons acting as a group together with the holder or any of the holder's affiliates) beneficially owning more than 9.99 percent of the shares of Common Stock then outstanding immediately after giving effect to such exercise (the Beneficial Ownership Limitation). Based on 104,202,990, shares of Common Stock, as follows: (a) 104,074,302 outstanding as of November 4, 2026, as reported by the Issuer (as defined in Item 1(a) below) in its quarterly report filed with the Securities and Exchange Commission (the Commission) on November 9, 2026 (the Form 10-Q), plus (b) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement.

SCHEDULE 13G

CUSIP No.

1		Names of Reporting Persons TCG Crossover Fund II, L.P.
2		Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)
3		Sec Use Only
4		Citizenship or Place of Organization DELAWARE
Number of Shares Beneficially Owned by	5	Sole Voting Power 0.00
	6	Shared Voting Power

Each Reporting Person With:		5,211,368.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,211,368.00
9		Aggregate Amount Beneficially Owned by Each Reporting Person 5,211,368.00
10		Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐
11		Percent of class represented by amount in row (9) 5.0 %
12		Type of Reporting Person (See Instructions) PN

Comment for Type of Reporting Person: Consists of (i) 5,082,680 shares of Common Stock and (ii) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement. These securities are held of record by TCG Crossover II. TCG Crossover GP II is the general partner of TCG Crossover II and may be deemed to have voting, investment, and dispositive power with respect to these securities. Chen Yu is the sole managing member of TCG Crossover GP II and may be deemed to share voting, investment and dispositive power with respect to these securities. This total excludes 1,771,312 shares of Common Stock subject to Pre-Funded Warrants which are not exercisable within 60 days of this Statement due to the Beneficial Ownership Limitation. Based on 104,202,990, shares of Common Stock, as follows: (a) 104,074,302 outstanding as of November 4, 2026, as reported by the Issuer in the Form 10-Q, plus (b) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement.

SCHEDULE 13G

CUSIP No.

1		Names of Reporting Persons TCG Crossover GP III, LLC
2		Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)
3		Sec Use Only
4		Citizenship or Place of Organization DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,211,365.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,211,365.00

9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,211,365.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐
11	Percent of class represented by amount in row (9) 5.0 %
12	Type of Reporting Person (See Instructions) OO

Comment for Type of Reporting Person: Consists of (i) 5,082,677 shares of Common Stock and (ii) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement. These securities are held of record by TCG Crossover III (as defined in Item 2(a) below). TCG Crossover GP III (as defined in Item 2(a) below) is the general partner of TCG Crossover III and may be deemed to have voting, investment, and dispositive power with respect to these securities. Chen Yu is the sole managing member of TCG Crossover GP III and may be deemed to share voting, investment and dispositive power with respect to these securities. This total excludes 1,771,312 shares of Common Stock subject to Pre-Funded Warrants which are not exercisable within 60 days of this Statement due to the Beneficial Ownership Limitation. Based on 104,202,990, shares of Common Stock, as follows: (a) 104,074,302 outstanding as of November 4, 2026, as reported by the Issuer in the Form 10-Q, plus (b) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons TCG Crossover Fund III, L.P.	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 5,211,365.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 5,211,365.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 5,211,365.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐	
11	Percent of class represented by amount in row (9) 5.0 %	

12	Type of Reporting Person (See Instructions)	
	PN	

Comment for Type of Reporting Person: Consists of (i) 5,082,677 shares of Common Stock and (ii) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement. These securities are held of record by TCG Crossover III. TCG Crossover GP III is the general partner of TCG Crossover III and may be deemed to have voting, investment, and dispositive power with respect to these securities. Chen Yu is the sole managing member of TCG Crossover GP III and may be deemed to share voting, investment and dispositive power with respect to these securities. This total excludes 1,771,312 shares of Common Stock subject to Pre-Funded Warrants which are not exercisable within 60 days of this Statement due to the Beneficial Ownership Limitation. Based on 104,202,990, shares of Common Stock, as follows: (a) 104,074,302 outstanding as of November 4, 2026, as reported by the Issuer in the Form 10-Q, plus (b) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Chen Yu	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 10,422,733.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 10,422,733.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 10,422,733.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐	
11	Percent of class represented by amount in row (9) 9.99 %	
12	Type of Reporting Person (See Instructions) IN	

Comment for Type of Reporting Person: Consists of (i) 5,082,680 shares of Common Stock held of record by TCG Crossover II, (ii) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement held of record by TCG Crossover II, (iii) 5,082,677 shares of Common Stock held of record by TCG Crossover III and (iv) 128,688 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement held of record by TCG Crossover III. TCG Crossover GP II is the general partner of TCG Crossover II and may be deemed to have voting, investment, and dispositive power with respect to the securities held of record by TCG Crossover II. TCG Crossover GP

III is the general partner of TCG Crossover III and may be deemed to have voting, investment, and dispositive power with respect to the securities held of record by TCG Crossover III. Chen Yu is the sole managing member of each of TCG Crossover GP II and TCG Crossover GP III and may be deemed to share voting, investment and dispositive power with respect to the securities held of record by TCG Crossover II and TCG Crossover III. This total excludes an aggregate of 3,542,624 shares of Common Stock subject to Pre-Funded Warrants held of record by TCG Crossover II and held of record by TCG Crossover III which are not exercisable within 60 days of this Statement due to the Beneficial Ownership Limitation. Based on 104,331,678, shares of Common Stock, as follows: (a) 104,074,302 outstanding as of November 4, 2026, as reported by the Issuer in the Form 10-Q, plus (b) an aggregate of 257,376 shares of Common Stock subject to Pre-Funded Warrants which are exercisable within 60 days of this Statement held of record by TCG Crossover II and held of record by TCG Crossover III.

SCHEDULE 13G

Item 1.

(a) Name of issuer:

Aura Biosciences, Inc.

(b) Address of issuer's principal executive offices:

80 Guest Street, Boston, MA 02135

Item 2.

(a) Name of person filing:

This Amendment No. 1 (Amendment No. 1) amends and supplements the Schedule 13G initially filed with the Commission on May 12, 2026 (the Original Schedule 13G) and is being filed by TCG Crossover Fund II, L.P. (TCG Crossover II), TCG Crossover GP II, LLC (TCG Crossover GP II), TCG Crossover Fund III, L.P. (TCG Crossover III) and TCG Crossover GP III, LLC (TCG Crossover GP III and together with TCG Crossover II, TCG Crossover GP II and TCG Crossover III, the Reporting Entities) and Chen Yu (the Reporting Individual). The Reporting Entities and the Reporting Individual are collectively referred to as the Reporting Persons. The Reporting Persons expressly disclaim status as a group for purposes of this Schedule 13G. The agreement among the Reporting Persons to file jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act is attached as Exhibit 1 to the Original Schedule 13G. Other than those securities reported herein as being held directly by such Reporting Person, each Reporting Person disclaims beneficial ownership of all securities reported in this Statement except to the extent of such Reporting Person's pecuniary interest therein. Capitalized terms not defined in this Amendment No. 1 have the meanings ascribed to them in the Original Schedule 13G.

(b) Address or principal business office or, if none, residence:

The address of the principal business office of each Reporting Person is 245 Lytton Ave., Suite 350, Palo Alto, CA 94301.

(c) Citizenship:

TCG Crossover GP II and TCG Crossover GP III are each a limited liability company organized under the laws of the State of Delaware. TCG Crossover II and TCG Crossover III are each a limited partnership organized under the laws of the State of Delaware. The Reporting Individual is a citizen of the United States of America.

(d) Title of class of securities:

Common Stock, par value $0.00001 per share

(e) CUSIP No.:

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:

(a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);

(b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e) ☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);

(f) ☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

(g) ☐ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

(h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in

accordance with § 240.13d-1(b)(1)(ii)(J),
please specify the type of institution:

(k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

(a)

See Row 9 of the cover page for each Reporting Person and the corresponding comments.

Percent of class:

(b)

See Row 11 of the cover page for each Reporting Person and the corresponding comments. %

(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 and the corresponding comments.

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

See Row 6 of the cover page for each Reporting Person and the corresponding comments.

(iii) Sole power to dispose or to direct the disposition of:

See Row 7 of the cover page for each Reporting Person and the corresponding comments.

(iv) Shared power to dispose or to direct the disposition of:

See Row 8 of the cover page for each Reporting Person and the corresponding comments.

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

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than 5 percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

Under certain circumstances set forth in the limited partnership agreements of TCG Crossover II and TCG Crossover III and the limited liability company agreements of TCG Crossover GP II and TCG Crossover GP III, the general and limited partners or members, as the case may be, of each of such entities may be deemed to have the right to receive dividends from, or the proceeds from, the sale of securities of the Issuer owned by each such entity of which they are a partner or member, as the case may be.

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 Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

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.

TCG Crossover GP II, LLC

Signature: /s/ Craig Skaling
Name/Title: Craig Skaling, Authorized Signatory
Date: 11/16/2026

TCG Crossover Fund II, L.P.

Signature: /s/ Craig Skaling
Name/Title: Craig Skaling, Authorized Signatory
Date: 11/16/2026

TCG Crossover GP III, LLC

Signature: /s/ Craig Skaling
Name/Title: Craig Skaling, Authorized Signatory
Date: 11/16/2026

TCG Crossover Fund III, L.P.

Signature: /s/ Craig Skaling
Name/Title: Craig Skaling, Authorized Signatory
Date: 11/16/2026

Chen Yu

Signature: /s/ Craig Skaling
Name/Title: Craig Skaling, as Attorney-in-Fact for Chen Yu
Date: 11/16/2026