SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 4)*

Senti Biosciences Holdings, Inc.

(Name of Issuer)

Common Stock, par value $0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

Stephanie Brecher
New Enterprise Associates, 1954 Greenspring Drive, Suite 600
Timonium, MD, 21093
(410)842-4000

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

11/16/2026

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. ☐

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).

SCHEDULE 13D

CUSIP No.

1	Name of reporting person New Enterprise Associates 15, L.P.
2	Check the appropriate box if a member of a Group (See Instructions)

☐ (a)
☐ (b)

3 SEC use only

Source of funds (See Instructions)

4 WC

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5 ☐

Citizenship or place of organization

6 DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00

Aggregate amount beneficially owned by each reporting person

11 8,775,115.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12 ☐

Percent of class represented by amount in Row (11)

13 9.7 %

Type of Reporting Person (See Instructions)

14 PN

SCHEDULE 13D

CUSIP No.

Name of reporting person

1 NEA Partners 15, L.P.

Check the appropriate box if a member of a Group (See Instructions)

2 ☐ (a)
☐ (b)

3 SEC use only

Source of funds (See Instructions)

4 AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5 ☐

Citizenship or place of organization

6 DELAWARE

Number of	7	Sole Voting Power

Shares Beneficially Owned by Each Reporting Person With:		0.00
	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00
11		Aggregate amount beneficially owned by each reporting person 8,775,115.00
12		Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13		Percent of class represented by amount in Row (11) 9.7 %
14		Type of Reporting Person (See Instructions) PN

SCHEDULE 13D

CUSIP No.

1		Name of reporting person NEA 15 GP, LLC
2		Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)
3		SEC use only
4		Source of funds (See Instructions) AF
5		Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6		Citizenship or place of organization DELAWARE
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00
11		Aggregate amount beneficially owned by each reporting person

8,775,115.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

☐

Percent of class represented by amount in Row (11)

13

9.7 %

Type of Reporting Person (See Instructions)

14

OO

SCHEDULE 13D

CUSIP No.

Name of reporting person

1

Forest Baskett

Check the appropriate box if a member of a Group (See Instructions)

2

☐ (a)
☐ (b)

3 SEC use only

Source of funds (See Instructions)

4

AF

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

5

☐

Citizenship or place of organization

6

UNITED STATES

Number of Shares Beneficially Owned by Each Reporting Person With:		
	7	Sole Voting Power 0.00
	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00

Aggregate amount beneficially owned by each reporting person

11

8,775,115.00

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

12

☐

Percent of class represented by amount in Row (11)

13

9.7 %

Type of Reporting Person (See Instructions)

14

IN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Anthony A. Florence, Jr.	
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)	
3	SEC use only	
4	Source of funds (See Instructions) AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐	
6	Citizenship or place of organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	7 Sole Voting Power 0.00	
	8 Shared Voting Power 8,775,115.00	
	9 Sole Dispositive Power 0.00	
	10 Shared Dispositive Power 8,775,115.00	
11	Aggregate amount beneficially owned by each reporting person 8,775,115.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 9.7 %	
14	Type of Reporting Person (See Instructions) IN	

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Mohamad H. Makhzoumi
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)

3	SEC use only	
4	Source of funds (See Instructions) AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐	
6	Citizenship or place of organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00
11	Aggregate amount beneficially owned by each reporting person 8,775,115.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 9.7 %	
14	Type of Reporting Person (See Instructions) IN	

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Scott D. Sandell	
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)	
3	SEC use only	
4	Source of funds (See Instructions) AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐	
6	Citizenship or place of organization UNITED STATES	
Number of Shares Beneficially	7	Sole Voting Power 0.00

Owned by Each Reporting Person With:	8	Shared Voting Power 8,775,115.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,775,115.00
11		Aggregate amount beneficially owned by each reporting person 8,775,115.00
12		Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13		Percent of class represented by amount in Row (11) 9.7 %
14		Type of Reporting Person (See Instructions) IN

SCHEDULE 13D

Item 1. Security and Issuer

(a) Title of Class of Securities:
Common Stock, par value $0.0001 per share

(b) Name of Issuer:
Senti Biosciences Holdings, Inc.

(c) Address of Issuer's Principal Executive Offices:
2 Corporate Drive, First Floor, South San Francisco, CALIFORNIA , 94080.

Item 1 Comment: This Amendment No. 4 ("Amendment No. 4") to Schedule 13D amends and supplements the Schedule 13D originally filed on July 15, 2022 (the "Schedule 13D"), Amendment No. 1 thereto filed on December 4, 2024 ("Amendment No. 1"), Amendment No. 2 thereto filed on March 10, 2025 ("Amendment No. 2") and Amendment No. 3 thereto filed on March 31, 2026 ("Amendment No. 3"), relating to the Common Stock of Senti Biosciences Holdings, Inc. (the "Issuer"). Certain terms used but not defined in this Amendment No. 4 have the meanings assigned thereto in the Schedule 13D (and Amendment No. 1, Amendment No. 2 and Amendment No. 3 thereto). Except as specifically provided herein, this Amendment No. 4 does not modify any of the information previously reported on the Schedule 13D (and Amendment No. 1, Amendment No. 2 and Amendment No. 3 thereto). This Amendment No. 4 is being filed to report that the beneficial ownership of Common Stock by the Reporting Persons (as defined below) has decreased by more than 1% as a result of an increase in the number of Common Stock outstanding.

Item 2. Identity and Background

(a) New Enterprise Associates 15, L.P. ("NEA 15"); NEA Partners 15, L.P. ("NEA Partners 15"), which is the sole general partner of NEA 15; and NEA 15 GP, LLC ("NEA 15 LLC" and together with NEA Partners 15, the "Control Entities"), which is the sole general partner of NEA Partners 15; and Forest Baskett ("Baskett"), Anthony A. Florence, Jr. ("Florence"), Mohamad H. Makhzoumi ("Makhzoumi") and Scott D. Sandell ("Sandell") (together, the "Managers"). The Managers are the managers of NEA 15 LLC. Florence, Makhzoumi and Sandell are each a member of the Executive Committee of NEA Management Company, LLC (the "Executive Committee"). The persons named in this Item 2 are referred to individually herein as a "Reporting Person" and collectively as the "Reporting Persons."

(b) The address of the principal business office of each Control Entity and Sandell is New Enterprise Associates, 1954 Greenspring Drive, Suite 600, Timonium, MD 21093. The address of the principal business office of Baskett and Makhzoumi is New Enterprise Associates, 2855 Sand Hill Road, Menlo Park, CA 94025. The address of the principal business office of Florence is New Enterprise Associates, 104 5th Avenue, 19th Floor, New York, NY 10011.

(c) The principal business of NEA 15 is to invest in and assist growth-oriented businesses located principally in the United States. The principal business of NEA Partners 15 is to act as the sole general partner of NEA 15. The principal business of NEA 15 LLC is to act as the sole general partner of NEA Partners 15. The principal business of

each of the Managers and the Executive Committee is to manage the Control Entities and a number of affiliated partnerships with similar businesses.

(d) During the five years prior to the date hereof, none of the Reporting Persons has been convicted in a criminal proceeding or has been a party to a civil proceeding ending in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(e) During the five years prior to the date hereof, none of the Reporting Persons has been convicted in a criminal proceeding or has been a party to a civil proceeding ending in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) NEA 15 LLC is a limited liability company organized under the laws of the State of Delaware. NEA 15 and NEA Partners 15 are limited partnerships organized under the laws of the State of Delaware. Each of the Managers is a United States citizen.

Item 3. Source and Amount of Funds or Other Consideration

Not applicable.

Item 4. Purpose of Transaction

NEA 15 acquired the NEA 15 Shares (as defined below) for investment purposes. Depending on market conditions, its continuing evaluation of the business and prospects of the Issuer and other factors, NEA 15 and other Reporting Persons may dispose of or acquire additional shares of the Issuer. Except as set forth above, none of the Reporting Persons has any present plans which relate to or would result in: (a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer; (b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries; (d) Any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board; (e) Any material change in the present capitalization or dividend policy of the Issuer; (f) Any other material change in the Issuer's business or corporate structure; (g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Issuer by any person; (h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934; or (j) Any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

(a) NEA 15 is the record owner of 3,775,615 shares of Common Stock and has a right, upon exercise of the Warrants and taking into account their respective beneficial ownership limitations, to purchase up to 4,999,500 Warrant Shares for a total deemed ownership of 8,775,115 shares of Common Stock (the "NEA 15 Shares"). As the general partner of NEA 15, NEA Partners 15 may be deemed to own beneficially the NEA 15 Shares. As the sole general partner of NEA Partners 15, NEA 15 LLC may be deemed to own beneficially the NEA 15 Shares. As members of NEA 15 LLC, each of the Managers may be deemed to own beneficially the NEA 15 Shares. As individual members of the Executive Committee, which committee has voting and dispositive power with respect to the NEA 15 Shares, each of Florence, Makhzoumi and Sandell may be deemed to beneficially own the NEA 15 Shares. Each Reporting Person disclaims beneficial ownership of the NEA 15 Shares other than those shares which such person owns of record. The percentage of outstanding Common Stock of the Issuer which may be deemed to be beneficially owned by each Reporting Person is set forth on Line 13 of such Reporting Person's cover sheet. Such percentage was calculated based on 90,705,763 outstanding shares of Common Stock, which is the sum of (i) the 85,706,263 shares of Common Stock reported by the Issuer to be outstanding as of October 30, 2026, as reported on the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 16, 2026 and (ii) the Warrant Shares.

(b) Regarding the number of shares as to which such person has: (i) sole power to vote or to direct the vote: See Line 7 of cover sheets (ii) shared power to vote or to direct the vote: See Line 8 of cover sheets (iii) sole power to dispose or to direct the disposition: See Line 9 of cover sheets (iv) shared power to dispose or to direct the disposition: See Line 10 of cover sheets.

(c) None of the Reporting Persons has effected any transaction in the NEA 15 Shares during the last 60 days.

(d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, NEA 15 Shares beneficially owned by any of the Reporting Persons.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

Not applicable.

Item 7. Material to be Filed as Exhibits.

Exhibit 1 - Agreement regarding filing of joint Schedule 13D. Exhibit 2 - Power of Attorney regarding filings under the Securities Exchange Act of 1934, as amended.

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.

New Enterprise Associates 15, L.P.

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Anthony A. Florence Jr., Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Mohamad H. Makhzoumi, Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

NEA Partners 15, L.P.

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Anthony A. Florence Jr., Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Mohamad H. Makhzoumi, Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

NEA 15 GP, LLC

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Anthony A. Florence Jr., Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Mohamad H. Makhzoumi, Managing Partner and Co-Chief Executive Officer
Date: 11/18/2026

Forest Baskett

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Forest Baskett
Date: 11/18/2026

Anthony A. Florence, Jr.

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Anthony A. Florence Jr.
Date: 11/18/2026

Mohamad H. Makhzoumi

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Mohamad H. Makhzoumi
Date: 11/18/2026

Scott D. Sandell

Signature: /s/ Zachary Bambach
Name/Title: Zachary Bambach as attorney-in-fact for Scott D.

Sandell

Date: 11/18/2026

Comments accompanying signature: This Amendment No. 4 to Schedule 13D was executed by Zachary Bambach on behalf of the individuals listed above pursuant to a Power of Attorney, a copy of which is attached as Exhibit 2.

EXHIBIT 1

AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of shares of stock of Senti Biosciences Holdings, Inc.

EXECUTED this 18th day of November, 2026.

NEW ENTERPRISE ASSOCIATES 15, L.P.

By: NEA PARTNERS 15, L.P.
General Partner

By: NEA 15 GP, LLC
General Partner

By: *
Anthony A. Florence, Jr.
Managing Partner and Co-Chief Executive Officer

By: *
Mohamad H. Makhzoumi
Managing Partner and Co-Chief Executive Officer

NEA PARTNERS 15, L.P.

By: NEA 15 GP, LLC
General Partner

By: *
Anthony A. Florence, Jr.
Managing Partner and Co-Chief Executive Officer

By: *
Mohamad H. Makhzoumi
Managing Partner and Co-Chief Executive Officer

NEA 15 GP, LLC

By: *
Anthony A. Florence, Jr.
Managing Partner and Co-Chief Executive Officer

By: *
Mohamad H. Makhzoumi
Managing Partner and Co-Chief Executive Officer

*
Forest Baskett

*
Anthony A. Florence, Jr.

*
Mohamad H. Makhzoumi

*

Scott D. Sandell

*/s/ Zachary Bambach
Zachary Bambach
As attorney-in-fact

This Agreement relating to Schedule 13D was executed by Zachary Bambach on behalf of the individuals listed above pursuant to a Power of Attorney, a copy of which is attached hereto as Exhibit 2.

EXHIBIT 2

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned hereby constitutes and appoints Zachary Bambach, Nicole Hatcher and Stephanie Brecher, and each of them, with full power to act without the others, his or her true and lawful attorney-in-fact, with full power of substitution, to sign any and all instruments, certificates and documents that may be necessary, desirable or appropriate to be executed on behalf of himself as an individual or in his or her capacity as a direct or indirect general partner, director, officer or manager of any partnership, corporation or limited liability company, pursuant to section 13 or 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any and all regulations promulgated thereunder, including, without limitation, Forms 3, 4 and 5 and Schedules 13D and 13G (and any amendments thereto), and to file the same, with all exhibits thereto, and any other documents in connection therewith, with the Securities and Exchange Commission (the "SEC"), including, but not limited to, signing a Form ID for and on behalf of the undersigned and filing such Form ID with the SEC, and with any other entity when and if such is mandated by the Exchange Act or by the Financial Industry Regulatory Authority, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary, desirable or appropriate, fully to all intents and purposes as he or she might or could do in person, thereby ratifying and confirming all that said attorney-in-fact, or his or her substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney is perpetual, unless revoked by the undersigned in a signed writing delivered to each of the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, this Power of Attorney has been signed as of the 29th day of February, 2024.

/s/ Peter J. Barris
Peter J. Barris

/s/ Forest Baskett
Forest Baskett

/s/ Ali Behbahani
Ali Behbahani

/s/ Ronald D. Bernal
Ronald D. Bernal

/s/ Ann Bordetsky
Ann Bordetsky

/s/ Carmen Chang
Carmen Chang

/s/ Philip Chopin
Philip Chopin

/s/ Anthony A. Florence, Jr.
Anthony A. Florence, Jr.

/s/ Jonathan Golden
Jonathan Golden

/s/ Scott Gottlieb
Scott Gottlieb

/s/ Mark Hawkins
Mark Hawkins

/s/ Jeffrey R. Immelt
Jeffrey R. Immelt

/s/ Aaron Jacobson
Aaron Jacobson

/s/ Patrick J. Kerins
Patrick J. Kerins

/s/ Hilarie Koplow-McAdams
Hilarie Koplow-McAdams

/s/ Vanessa Larco
Vanessa Larco

/s/ Julio C. Lopez
Julio C. Lopez

/s/ Tiffany Le
Tiffany Le

/s/ Mohamad H. Makhzoumi

Mohamad H. Makhzoumi

/s/ Edward T. Mathers
Edward T. Mathers

/s/ Gregory Papadopoulos
Gregory Papadopoulos

/s/ Kavita Patel
Kavita Patel

/s/ Scott D. Sandell
Scott D. Sandell

/s/ A. Brooke Seawell
A. Brooke Seawell

/s/ Peter Sonsini
Peter Sonsini

/s/ Melissa Taunton
Melissa Taunton

/s/ Paul E. Walker
Paul E. Walker

/s/ Rick Yang
Rick Yang