
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 5)*

Senti Biosciences Holdings, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

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212-756-2000

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

07/14/2026

(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

Celadon Partners SPV 24

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

OO

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

5

☐

Citizenship or place of organization

6

CAYMAN ISLANDS

Sole Voting Power

7

0.00

Shared Voting Power

8

25,748,890.00

Sole Dispositive Power

9

0.00

Shared Dispositive Power

10

25,748,890.00

Aggregate amount beneficially owned by each reporting person

11

25,748,890.00

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

12

☐

Percent of class represented by amount in Row (11)

13

54.6 %

Type of Reporting Person (See Instructions)

14

OO

Comment for Type of Reporting Person:

Includes 15,971,890 shares of issuable upon the exchange of the Initial Notes (as defined in Item 3 of the Schedule 13D) issued on May 20, 2026, assuming the requisite stockholder approval of the Issuer's stockholders is obtained, and immediate exchange of such Initial Notes for Common Stock pursuant to the Securities Purchase Agreement (as defined in Item 3 of the Schedule 13D).

SCHEDULE 13D

CUSIP No.

1

Name of reporting person

Celadon Partners, LLC

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

	OO
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
	☐
6	Citizenship or place of organization
	CAYMAN ISLANDS
	Sole Voting Power
7	0.00
Number of	Shared Voting Power
Shares	
Beneficially	8 25,748,890.00
Owned by	
Each	Sole Dispositive Power
Reporting	9 0.00
Person	
With:	Shared Dispositive Power
	10 25,748,890.00
	Aggregate amount beneficially owned by each reporting person
11	25,748,890.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	54.6 %
	Type of Reporting Person (See Instructions)
14	OO

Comment for Type of Reporting Person: Includes 15,971,890 shares of Common Stock issuable upon the exchange of the Initial Notes (as defined in Item 3 of the Schedule 13D) issued on May 20, 2026, assuming the requisite stockholder approval of the Issuer's stockholders is obtained, and immediate exchange of such Initial Notes for Common Stock pursuant to the Securities Purchase Agreement (as defined in Item 3 of the Schedule 13D).

SCHEDULE 13D

CUSIP No.

	Name of reporting person
1	CPIF II-7 Limited
	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	OO
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	CAYMAN ISLANDS
Number of	7 Sole Voting Power

Shares Beneficially Owned by Each Reporting Person With:	0.00
	Shared Voting Power
8	
25,748,890.00	
Sole Dispositive Power	
9	
0.00	
Shared Dispositive Power	
10	
25,748,890.00	
Aggregate amount beneficially owned by each reporting person	
11	25,748,890.00
Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)	
12	☐
Percent of class represented by amount in Row (11)	
13	54.6 %
Type of Reporting Person (See Instructions)	
14	OO

Comment for Type of Reporting Person: Includes 15,971,890 shares of Common Stock issuable upon the exchange of the Initial Notes (as defined in Item 3 of the Schedule 13D) issued on May 20, 2026, assuming the requisite stockholder approval of the Issuer's stockholders is obtained, and immediate exchange of such Initial Notes for Common Stock pursuant to the Securities Purchase Agreement (as defined in Item 3 of the Schedule 13D).

SCHEDULE 13D

Item 1. Security and Issuer

Title of Class of Securities:

(a)

Common Stock, par value \$0.0001 per share

Name of Issuer:

(b)

Senti Biosciences Holdings, Inc.

Address of Issuer's Principal Executive Offices:

(c)

2 CORPORATE DRIVE, FIRST FLOOR, SOUTH SAN FRANCISCO, CALIFORNIA , 94080.

Item 1 Comment: The following constitutes Amendment No. 5 ("Amendment No. 5") to the Schedule 13D filed with the Securities and Exchange Commission on March 13, 2025 (as amended, the "Schedule 13D"). This Amendment No. 5 supplements Items 3, 4, 6 and 7 as set forth below. Capitalized terms used herein and not otherwise defined in this Amendment No. 5 have the meanings set forth in the Schedule 13D.

Item 3. Source and Amount of Funds or Other Consideration

On July 14, 2026, Senti Biosciences Holdings, Inc. (the "Issuer"), Senti Holdings, Inc. ("Midco"), Senti Biosciences, Inc. ("Opco"), Celadon Partners SPV 35 Limited ("Parent"), and Senti Merger Sub, Inc. ("Merger Sub") entered into an Agreement and Plan of Merger (the "Merger Agreement"). Parent is an exempted company incorporated under the laws of the Cayman Islands and is an entity affiliated with Celadon Partners SPV 24. Pursuant to the Merger Agreement, Merger Sub will merge with and into Midco (the "Merger"), with Midco surviving as a wholly owned subsidiary of Parent. At the effective time of the Merger, each outstanding share of Midco common stock (other than shares owned by Midco or its subsidiaries, which will be cancelled) will be cancelled and converted into the right to receive contingent value rights ("CVRs") representing the right to receive pro rata portions of milestone payments of up to \$60 million in the aggregate if certain development, regulatory and commercial milestones for SENTI-202 are achieved. Pursuant to the Merger Agreement, no later than twenty-one (21) days from the date of the Merger Agreement, Parent or an affiliate of Parent is required to fund and purchase Additional Notes (as defined in the Securities Purchase Agreement) in accordance with the terms of the Securities Purchase Agreement, in an amount equal to \$6,000,000 (the "Additional Funding Amount"), minus the aggregate amount of net proceeds actually received by the Issuer from sales of the Issuer's common stock pursuant to the Issuer's existing at-the-market offering facility with Leerink Partners LLC (the "ATM Facility"). Parent has the right, in its sole discretion, to first direct the Issuer to sell shares of common stock pursuant to the ATM Facility, and net proceeds received will reduce, dollar-for-

dollar, the Additional Funding Amount. The foregoing description of the Merger Agreement is qualified in its entirety by reference to the Merger Agreement, a copy of which is filed as Exhibit H hereto and is incorporated by reference in this Item 3.

Item 4. Purpose of Transaction

The Reporting Persons and their affiliates entered into the Merger Agreement for the purpose of acquiring the Issuer's assets relating to its Gene-Circuit-enabled pipeline, including the rights to SENTI-202, through the Merger. Following the Merger, the Issuer is expected to remain a public company with a streamlined operating structure, retaining certain intellectual property, collaborations and early-stage programs focused on its Regulator Dial(TM) technology platform while the remaining business is expected to merge into Parent's subsidiary.

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

Item 3 summarizes the Merger Agreement and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

H. Agreement and Plan of Merger, dated as of July 14, 2026, by and among Senti Biosciences Holdings, Inc., Senti Holdings, Inc., Sentio Biosciences, Inc., Celadon Partners SPV 35 Limited and Senti Merger Sub, Inc. (incorporated herein by reference to Exhibit 2.1 to the Issuer's Current Report on Form 8-K filed on July 14, 2026 (File No. 001-40440)).

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.

Celadon Partners SPV 24

Signature: /s/ John Cullinane

Name/Title: John Cullinane, Manager, Celadon Partners, LLC
(as sole manager of Celadon Partners SPV 24)

Date: 07/16/2026

Celadon Partners, LLC

Signature: /s/ John Cullinane

Name/Title: John Cullinane, Manager

Date: 07/16/2026

CPIF II-7 Limited

Signature: /s/ John Cullinane

Name/Title: John Cullinane, Authorized Signatory

Date: 07/16/2026