

July 29, 2022

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance – Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549
Attention: Dillon Hagius and Jason Drory

Re: **Senti Biosciences, Inc.**
Registration Statement on Form S-1
Filed June 28, 2022
File No. 333-265873

On behalf of Senti Biosciences, Inc. (the “Company”), we are submitting this letter to the Securities and Exchange Commission (the “SEC”) via EDGAR in response to the comment letter from the staff of the SEC (the “Staff”), dated July 11, 2022 (the “Comment Letter”), pertaining to the Company’s above-referenced Registration Statement on Form S-1 (the “Registration Statement”). In connection with such responses, the Company is concurrently filing Amendment No. 1 to the Registration Statement (“Amendment No. 1 to the Registration Statement”).

For your convenience, the Staff’s comments are summarized in this letter, and each comment is followed by the applicable responses on behalf of the Company.

Registration Statement on Form S-1 filed June 28, 2022

Cover Page

1. *For each of the common stock shares being registered for resale, disclose the price that the selling securityholders paid for such shares.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure throughout Amendment No. 1 to Form S-1 to include relevant pricing information that the selling securityholders paid for such shares on the prospectus cover and on page 225.

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Prospectus Summary

Summary Risk Factors, page 7

Risk Factors, page 77

2. *We note the significant number of redemptions of your common stock in connection with your business combination and that the shares being registered for resale will constitute a considerable percentage of your public float. We also note that many of the shares being registered for resale were purchased by the selling securityholders for prices considerably below the current market price of the common stock. Highlight the significant negative impact sales of shares on this registration statement could have on the public trading price of the common stock.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure throughout Amendment No. 1 to Form S-1 on the cover page, page 7 and page 77 to include that sales of the Company's common stock or the perception that such sales may occur could have a significant negative impact on the trading price of our common stock.

Prospectus Summary

Background, page 7

3. *In light of the significant number of redemptions and LifeForce Capital not funding the \$16.2 million pursuant to a certain subscription agreement entered into concurrently with the execution of the Business Combination Agreement in December 2021, expand your discussion of capital resources to address any changes in the company's liquidity position since the business combination. If the company is likely to have to seek additional capital, discuss the effect of this offering on the company's ability to raise additional capital.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure on page 7 of Amendment No. 1 to Form S-1 to include relevant information regarding the Company's liquidity position since the business combination and to indicate that the shortfall in cash due to the failure of LifeForce to fund its subscription amount did not require any material changes to the Company's business plan at this time. Additionally, the Company has included additional disclosure on page 7 of Amendment No. 1 to Form S-1 to disclose it will need to raise additional capital to fund its operations and that sales of the offered securities may impair the Company's ability to raise additional capital.

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4. *Please expand your discussion here to reflect the fact that this offering involves the potential sale of a substantial portion of shares for resale and discuss how such sales could impact the market price of the company's common stock.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure throughout Amendment No. 1 to Form S-1 on the cover page, page 7 and page 77 to include that sales of the Company's common stock or the perception that such sales may occur could have a significant negative impact on the trading price of the Company's common stock.

Risk Factors, page 77

5. *Include an additional risk factor highlighting the negative pressure potential sales of shares pursuant to this registration statement could have on the public trading price of the common stock. To illustrate this risk, disclose the purchase price of the securities being registered for resale and the percentage that these shares currently represent of the total number of shares outstanding. Also disclose that even though the current trading price is significantly below the SPAC IPO price, the private investors have an incentive to sell because they will still profit on sales because of the lower price that they purchased their shares than the public investors.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure on page 77 of Amendment No. 1 to Form S-1 to include a risk factor that sales of the Company's common stock or the perception that such sales may occur could have a significant negative impact on the trading price of our common stock and to disclose the purchase price of the securities being resale and the percentage that these shares currently represent of the total number of shares outstanding.

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Risk Factors, page 77

Selling Securityholders, page 225

6. *Revise your prospectus to disclose the price that each selling securityholder paid for the shares being registered for resale. Highlight any differences in the current trading price, the prices that the sponsor, private placement investors, PIPE investors, and any other selling securityholders acquired their shares, and the price that the public securityholders acquired their shares. Disclose that while the sponsor, private placement investors, PIPE investors, and any other selling securityholders may experience a positive rate of return based on the current trading price, the public securityholders may not experience a similar rate of return on the securities they purchased due to differences in the purchase prices and the current trading price. Please also disclose the potential profit the selling securityholders will earn based on the current trading price. Lastly, please include appropriate risk factor disclosure.*

RESPONSE: The Company respectfully advises the Staff that it has revised its disclosure throughout Amendment No. 1 to Form S-1 on the cover page, page 77 and page 225 to include relevant pricing information that the selling securityholders paid for such shares. The Company has also highlighted any differences in the current trading prices of the common stock, the prices that the sponsor, private placement investors, PIPE investors, and any other selling securityholders acquired their shares, and the price that the public securityholders acquired their shares.

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We hope that the foregoing has been responsive to the Staff's comments. If you have any questions or comments about this letter or need any further information, please call the undersigned of Goodwin Procter LLP at (415) 733-6071.

Very truly yours,

/s/ Maggie Wong

Maggie Wong

cc: Timothy Lu, M.D., Ph.D., *Chief Executive Officer*, Senti Biosciences, Inc.
Deborah Knobelman, Ph.D., *Chief Financial Officer*, Senti Biosciences, Inc.
Jocelyn M. Arel, Goodwin Procter LLP