PROSPECTUS



SENTI BIOSCIENCES, INC.

Up to 8,727,049 Shares of Common Stock

This prospectus relates to the potential offer and sale from time to time by Chardan Capital Markets LLC ("Chardan" or the "Selling Securityholder") of up to 8,727,049 shares of our common stock, par value \$0.0001 per share ("Senti Common Shares") that have been or may be issued by us to Chardan pursuant to a ChEF Purchase Agreement, dated as of August 31, 2022, by and between us and Chardan (the "Purchase Agreement") establishing a committed equity facility (the "Facility"). Such Senti Common Shares consist of (i) up to 8,627,049 Senti Common Shares that we may elect, in our sole discretion, to issue and sell to Chardan, from time to time under the Purchase Agreement and (ii) the 100,000 Senti Common Shares (such shares, the "Commitment Shares") issued to Chardan as consideration for its execution and delivery of the Purchase Agreement on the Signing Date (as defined herein). The actual number of Senti Common Shares issuable will vary depending on the then current market price of Senti Common Shares sold to Chardan under the Facility. See "The Committed Equity Financing" for a description of the Purchase Agreement and the Facility and "Selling Securityholder" for additional information regarding Chardan and "Plan of Distribution (Conflicts of Interest)" for a description of compensation payable to Chardan.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of the Senti Common Shares by the Selling Securityholder. We may receive up to \$50.0 million in aggregate gross proceeds from the Selling Securityholder under the Purchase Agreement in connection with sales of the Senti Common Shares to the Selling Securityholder pursuant to the Purchase Agreement after the date of this prospectus. However, the actual proceeds from the Selling Securityholder may be less than this amount depending on the number of Senti Common Shares sold and the price at which the Senti Common Shares are sold.

This prospectus provides you with a general description of such securities and the general manner in which Chardan may offer or sell the securities. More specific terms of any securities that Chardan may offer or sell may be provided in a prospectus supplement that describes, among other things, the specific amounts and prices of the securities being offered and the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus.

Chardan may offer, sell or distribute all or a portion of the Senti Common Shares acquired under the Purchase Agreement and hereby registered publicly or through private transactions at prevailing market prices or at negotiated prices. We will bear all costs, expenses and fees in connection with the registration of the Senti Common Shares, including with regard to compliance with state securities or "blue sky" laws. The timing and amount of any sale are within the sole discretion of Chardan. Chardan is an underwriter under the Securities Act of 1933, as amended (the "Securities Act"), and any profit on sale of Senti Common Shares by them and any discounts, commissions or concessions received by them may be deemed to be underwriting discounts and commissions under the Securities Act. Although Chardan is obligated to purchase Senti Common Shares under the terms and subject to the conditions and limitations of the Purchase Agreement to the extent we choose to sell such Senti Common Shares to them (subject to certain conditions), there can be no assurances that we will choose to sell any Senti Common Shares to Chardan or that Chardan will sell any or all of the Senti Common Shares, if any, purchased under the Purchase Agreement pursuant to this prospectus. Chardan will bear all commissions and discounts, if any, attributable to its sale of Senti Common Shares. See "Plan of Distribution (Conflicts of Interest)."

You should read this prospectus and any prospectus supplement or amendment carefully before you invest in our securities.

Our common stock is listed on The Nasdaq Global Market ("Nasdaq") under the symbol "SNTI". On November 2, 2023 the last quoted sale price for the Senti Common Shares as reported on Nasdaq was \$0.28 per share.

We are an "emerging growth company" under applicable federal securities laws and will be subject to reduced public company reporting requirements.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in "Risk Factors" beginning on page 8 of this prospectus and any other risk factors contained in any applicable prospectus supplement and in the documents incorporated by reference herein and therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities to be issued under this prospectus or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 3, 2023

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SELECTED DEFINITIONS

As used in this prospectus, unless otherwise noted or the context otherwise requires, references to the following capitalized terms have the meanings set forth below:

- "Business Combination" means the transactions contemplated by the Business Combination Agreement, including the merger between Merger Sub and Senti.
- "Business Combination Agreement" means the Business Combination Agreement, dated as of December 19, 2021, as amended or modified from time to time, including as amended by Amendment No. 1 to Business Combination Agreement, dated as of February 12, 2022 and Amendment No. 2, dated as of May 19, 2022, in each case, by and among DYNS, Merger Sub and Senti.
- "Board" means the board of directors of Senti.
- "Bylaws" means the Amended and Restated Bylaws of Senti.
- "Chardan" means Chardan Capital Markets LLC, a New York limited liability company.
- "Chardan Registration Rights Agreement" means the registration rights agreement dated as of August 31, 2022, by and between Senti and Chardan.
- "Certificate of Incorporation" or "Charter" means the Second Amended and Restated Certificate of Incorporation of Senti.
- "DGCL" means the Delaware General Corporation Law, as may be amended from time to time.
- "DYNS" means Dynamics Special Purpose Corp., a Delaware corporation.
- "Exchange Act" means the Securities Exchange Act of 1934, as amended.
- "JOBS Act" means the Jumpstart Our Business Startups Act of 2012.
- "Merger Sub" means Explore Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of DYNS.
- "SEC" means the U.S. Securities and Exchange Commission.
- "Securities Act" means the Securities Act of 1933, as amended.
- "Senti" means Senti Biosciences, Inc., a Delaware corporation (which, prior to the consummation of the Business Combination, was known as DYNS).
- "Senti Common Shares" means the common stock, par value \$0.0001 per share, of Senti.
- "Signing Date" means August 31, 2022, the date the Purchase Agreement and Chardan Registration Rights Agreement were entered into.

FORWARD-LOOKING STATEMENTS

This prospectus and some of the information incorporated by reference, includes forward-looking statements regarding, among other things, the plans, strategies, and prospects, both business and financial, of Senti. These statements are based on the beliefs and assumptions of the management of Senti. Although Senti believes that their respective plans, intentions, and expectations reflected in or suggested by these forward-looking statements are reasonable, it cannot assure you that it will achieve or realize these plans, intentions, or expectations. Forward-looking statements are inherently subject to risks, uncertainties, and assumptions. Generally, statements that are not historical facts, including statements concerning possible or assumed future actions, business strategies, events or results of operations, and any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. These statements may be preceded by, followed by or include the words "believes", "estimates", "expects", "projects", "forecasts", "may", "might", "will", "should", "seeks", "plans", "scheduled", "possible", "anticipates", "intends", "aims", "works", "focuses", "aspires", "strives" or "sets out" or similar expressions. Forward-looking statements are not guarantees of performance. You should not put undue reliance on these statements which speak only as of the date hereof. Forward-looking statements contained in this prospectus include, for example, statements about:

- our ability to realize the benefits expected from the Business Combination and from the Framework Agreement, dated August 7, 2023, by and among Senti, GeneFab, LLC and Valere Bio, Inc. and the transactions contemplated thereunder;
- the projected financial information, anticipated growth rate, and market opportunities of Senti;
- · our ability to maintain the listing of Senti Common Shares on Nasdaq, and the potential liquidity and trading of such securities;
- the accuracy of our estimates and projections of financial information, including expenses, capital requirements, cash utilization, need for additional financing and market opportunities;
- our ability to execute and realize potential benefits from our strategic plans, including our plan to focus internal resources on SENTI-202, SENTI-401, and with potential partners, to develop gene circuits for other programs, as announced in January 2023;
- our ability to file and obtain clearance for any investigational new drug application, or IND, for SENTI-202 and any other product candidates we may identify, and to initiate and successfully complete our planned Phase 1 clinical trial for SENTI-202 and any other product candidates;
- our ability to grow and effectively manage the growth of our operations;
- our ability to raise financing to fund our operations, if and when needed;
- our success in retaining or recruiting, or adapting to changes in, our officers, key employees, or directors;
- the initiation, cost, timing, progress and results of research and development activities, preclinical studies or clinical trials with respect to our current and potential future product candidates;
- our ability to develop and advance our gene circuit platform technologies;
- our ability to identify product candidates using our gene circuit platform technologies;
- our ability to develop and commercialize product candidates that we identify;
- our ability to advance our current and potential future product candidates into, and successfully complete, preclinical studies and clinical trials;
- our ability to obtain and maintain regulatory approval of our current and potential future product candidates, and any related restrictions, limitations and/or warnings in the label of an approved product candidate;

- · our ability to obtain and maintain intellectual property protection for our technologies and any of our product candidates;
- · our ability to successfully commercialize our current and any potential future product candidates;
- · the rate and degree of market acceptance of our current and any potential future product candidates;
- regulatory developments in the United States and international jurisdictions;
- potential liability lawsuits and penalties related to our technologies, product candidates and current and future relationships with third parties;
- our ability to attract and retain key scientific and management personnel;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately under those arrangements;
- our ability to compete effectively with existing competitors and new market entrants;
- our future financial performance and capital requirements;
- our ability to implement and maintain effective internal controls;
- the impact of supply chain disruptions;
- the impact of the COVID-19 pandemic on our business, including our preclinical studies and potential future clinical trials;
- · unfavorable global economic conditions, including inflationary pressures, market volatility, acts of war and civil and political unrest; and
- our ability to implement remediation plans to address the material weaknesses that are described in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023.

These and other factors that could cause actual results to differ from those implied by the forward-looking statements in this prospectus described under the heading "*Risk Factors*" and elsewhere in this prospectus. The risks described under the heading "*Risk Factors*" are not exhaustive. New risk factors emerge from time to time and it is not possible to predict all such risk factors, nor can we assess the impact of all such risk factors on the business of Senti or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements. All forward-looking statements attributable to Senti or to persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using the "shelf" registration process. Under this shelf registration process, we may, from time to time, issue up to 8,727,049 shares of common stock in one or more offerings through any means described in the section entitled "*Plan of Distribution*." We will not receive any proceeds from the sale by the Selling Securityholder of the securities offered by it described in this prospectus.

A prospectus supplement may add, update or change information included in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus supplement modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. You should rely only on the information contained in, or incorporated by reference into, this prospectus, and any applicable prospectus supplement. You should read both this prospectus and any applicable prospectus supplement or post-effective amendment to the registration statement together with the additional information to which we refer you in the sections of this prospectus entitled "Where You Can Find More Information."

Neither we nor the Selling Securityholder have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus or any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. Neither we nor the Selling Securityholder take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

This prospectus is an offer to sell only the securities offered hereby and only under circumstances and in jurisdictions where it is lawful to do so. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy securities, in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement is accurate only as of the date on the front of those documents and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any applicable prospectus supplement, or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

For investors outside the United States: neither we nor the Selling Securityholder have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of our securities and the distribution of this prospectus outside the United States.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under "Where You Can Find More Information."

This prospectus contains references to trademarks, trade names and service marks belonging to other entities. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus may appear without the [®] or TM symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus. It does not contain all the information you should consider before investing in the Senti Common Shares. You should read this entire prospectus carefully, including the sections titled "Risk Factors," "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Where You Can Find More Information," "Unaudited Pro Forma Condensed Combined Financial Information," and our consolidated financial statements and related notes included elsewhere or incorporated by reference in this prospectus, before making an investment decision. In this prospectus, unless the context requires otherwise, all references to "we," "our," "us," "Senti," the "Registrant," and the "Company" refer to Senti Biosciences, Inc. and its consolidated subsidiaries following the Business Combination.

Overview

We are a preclinical biotechnology company developing next-generation cell and gene therapies engineered with our gene circuit platform technologies to fight challenging diseases. Our mission is to create a new generation of smarter medicines that outmaneuver complex diseases using novel and unprecedented approaches. To accomplish this mission, we have built a synthetic biology platform that we believe may enable us to program next-generation cell and gene therapies with what we refer to as "gene circuits." These gene circuits, which we created from novel and proprietary combinations of genetic parts, are designed to reprogram cells with biological logic to sense inputs, compute decisions and respond to their respective cellular environments. We aim to design and optimize gene circuits and to improve the "intelligence" of cell and gene therapies in order to enhance their therapeutic effectiveness against a broad range of diseases that conventional medicines are unable to address. Our gene circuit platform technologies are designed to be applied in a modality-agnostic manner, with applicability to natural killer (NK) cells, T cells, tumor infiltrating lymphocytes (TILs), stem cells including induced Pluripotent Stem Cells (iPSCs) Hematopoietic Stem Cells (HSCs), *in vivo* gene therapy, such as adeno associated virus (AAV), and messenger ribonucleic acid (mRNA).

Our internal pipeline is focused on using these gene circuits we engineer onto off-the-shelf healthy adult donor derived NK cells to create chimeric antigen receptor (CAR) NK cells to potentially address the high unmet need in multiple oncology indications. All of our current product candidates are in preclinical development. We expect to file an investigational new drug application, or IND, for our lead product candidate SENTI-202 in the second half of 2023.

Going Concern

We have incurred recurring losses and negative cash flows from operations, and have an accumulated deficit that raises substantial doubt about its ability to continue as a going concern. Similarly, our independent registered public accounting firm included an explanatory paragraph in its report on our consolidated financial statements as of and for the year ended December 31, 2022 with respect to this uncertainty.

Company Information

We were incorporated under the laws of the State of Delaware on June 9, 2016. Our principal executive offices are located at 2 Corporate Drive, First Floor, South San Francisco, CA 94080 and our telephone number is (650) 239-2030. Our common stock is listed on the Nasdaq Capital Market under the symbol "SNTI".

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website at www.sec.gov that contains reports, proxy and information statements and other information about issuers, like us, that file electronically with the SEC. We also maintain a website at https://sentibio.com. We make available, free of charge, on our investor relations website at https://investors.sentibio.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports as soon as reasonably practicable after electronically filing or furnishing those reports to the SEC. Information contained on our website is not a part of or incorporated by reference into this prospectus and the inclusion of our website and investor relations website addresses in this prospectus is an inactive textual reference only.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined in the JOBS Act. As such, we may take advantage of reduced disclosure and other requirements otherwise generally applicable to public companies, including:

- exemption from the requirement to have our registered independent public accounting firm attest to management's assessment of our internal control over financial reporting;
- exemption from compliance with the requirement of the Public Company Accounting Oversight Board, or PCAOB, regarding the communication of critical audit matters in the auditor's report on the financial statements;
- · reduced disclosure about our executive compensation arrangements; and
- exemption from the requirement to hold non-binding advisory votes on executive compensation or golden parachute arrangements.

We will remain an emerging growth company until the earliest to occur of: (1) the last day of the fiscal year in which we have at least \$1.235 billion in annual revenue; (2) the date we qualify as a "large accelerated filer," with at least \$700.0 million of equity securities held by non-affiliates and our net sales for the year exceed \$100 million; (3) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period; and (4) December 31, 2026, the last day of the fiscal year ending after the fifth anniversary of the initial public offering of DYNS.

As a result of this status, we have taken advantage of reduced reporting requirements in this prospectus and may elect to take advantage of other reduced reporting requirements in our future filings with the SEC. In particular, in this prospectus and our other SEC filings incorporated by reference herein, we have not included all of the executive compensation-related information that would be required if we were not an emerging growth company.

THE OFFERING

Issuer

Senti Biosciences, Inc.

Senti Common Shares offered by the Selling Up to 8,727,049 Senti Common Shares, consisting of:

Securityholder

- 8,627,049 Senti Common Shares that we may elect, in our sole discretion, to issue and sell to the Selling Securityholder, from time to time from and after the Commencement Date under the Purchase Agreement; and
- the Commitment Shares, which are the 100,000 Senti Common Shares that were issued to Chardan as Commitment Shares as consideration for its execution and delivery of the Purchase Agreement on the Signing Date.

The actual number of Senti Common Shares issued and outstanding will vary depending on the then current market price of Senti Common Shares sold to Chardan in this offering.

Chardan will determine when and how it will dispose of any Senti Common Shares acquired

under the Purchase Agreement that are registered under this prospectus for resale

We will not receive any proceeds from the resale of Senti Common Shares by Chardan.

We will not receive any proceeds from the resale of Senti Common Shares by Chardan. However, we may receive up to \$50.0 million in aggregate gross proceeds from the Selling Securityholder under the Purchase Agreement in connection with sales of Senti Common Shares to the Selling Securityholder pursuant to the Purchase Agreement after the date of this prospectus. However, the actual proceeds may be less than this amount depending on the number of Senti Common Shares sold and the price at which the Senti Common Shares are sold. We intend to use any proceeds from any sales of Senti Common Shares to Chardan under the Facility for working capital and other general corporate purposes. Pending other uses, we intend to invest the net proceeds to us in investment-grade, interest-bearing securities such as money market funds, certificates of deposit, or direct or guaranteed obligations of the U.S. government, or hold as cash. We cannot predict whether the net proceeds invested will yield a favorable return. See "Use of Proceeds."

Chardan is a member of the Financial Industry Regulatory Authority, Inc. ("FINRA") and is expected to act as an executing broker for the resale of Senti Common Shares in this offering. The receipt by Chardan of all the proceeds from resales of Senti Common Shares results in a "conflict of interest" under FINRA Rule 5121. Accordingly, such resales will be conducted in compliance with FINRA Rule 5121. To the extent that the Senti Common Shares do not have a "bona fide public market", as defined in FINRA Rule 5121, a qualified independent underwriter will participate in the preparation of, and exercise the usual standards of "due diligence" with respect to, the registration statement. LifeSci Capital, LLC has agreed to act as qualified independent underwriter for this offering and will receive an upfront fee of \$100,000 and, beginning one year after the date of the Purchase Agreement, a quarterly fee of \$25,000 for doing so. Pursuant to FINRA Rule 5121, Chardan will not confirm resales of Senti Common Shares to any account over which it exercises discretionary authority without the prior written approval of the customer. See "Plan of Distribution (Conflicts of Interest)."

"SNTI".

Any investment in the securities offered hereby is speculative and involves a high degree of risk. You should carefully consider the information set forth under "Risk Factors" and elsewhere in this prospectus.

Terms of the Offering

Use of Proceeds

Conflicts of Interest

Trading Symbol Risk Factors

RISK FACTORS

Investing in the Senti Common Shares involves a high degree of risk. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in any applicable prospectus supplement before making an investment decision. The risks described in these documents are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be materially adversely affected. This could cause the trading price of our securities to decline, resulting in a loss of all or part of your investment. Please also carefully read the section titled "Cautionary Note Regarding Forward-Looking Statements."

Risks Related to the Facility

It is not possible to predict the actual number of Senti Common Shares, if any, we will sell under the Purchase Agreement to Chardan, or the actual gross proceeds resulting from those sales or the dilution to you from those sales.

On August 31, 2022, we entered into the Purchase Agreement with Chardan, pursuant to which Chardan shall purchase from us up to \$50.0 million of Senti Common Shares (the "Total Commitment"), upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement. The Senti Common Shares that may be issued under the Purchase Agreement may be sold by us to Chardan at our discretion from time to time until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the effectiveness of this registration statement, (ii) the date on which Chardan has purchased the Total Commitment pursuant to the Purchase Agreement, (iii) the date on which our common stock fails to be listed or quoted on Nasdaq or any successor market, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any Person commences a proceeding against us, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors.

We generally have the right to control the timing and amount of any sales of our common stock to Chardan under the Purchase Agreement. Sales of our common stock, if any, to Chardan under the Purchase Agreement will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Chardan all, some or none of the common stock that may be available for us to sell to Chardan pursuant to the Purchase Agreement. Accordingly, we cannot guarantee that we will be able to sell all of the Total Commitment or how much in proceeds we may obtain under the Purchase Agreement. If we cannot sell securities under the Facility, we may be required to utilize more costly and time-consuming means of accessing the capital markets, which could have a material adverse effect on our liquidity and cash position.

Because the purchase price per share of common stock to be paid by Chardan for the common stock that we may elect to sell to Chardan under the Purchase Agreement, if any, will fluctuate based on the market prices of our common stock at the time we elect to sell shares to Chardan pursuant to the Purchase Agreement, if any, it is not possible for us to predict, as of the date of this prospectus and prior to any such sales, the number of shares of common stock that we will sell to Chardan under the Purchase Agreement, the purchase price per share that Chardan will pay for shares of common stock purchased from us under the Purchase Agreement, or the aggregate gross proceeds that we will receive from those purchases by Chardan under the Purchase Agreement.

We are registering 8,727,049 Senti Common Shares under this prospectus, including the 100,000 Commitment Shares issued to Chardan as consideration for its execution and delivery of the Purchase Agreement on the Signing Date. The actual number of Senti Common Shares issuable will vary depending on the then current market price of Senti Common Shares sold to Chardan in this offering and the number of Senti Common Shares we ultimately elect to sell to Chardan under the Purchase Agreement. If it becomes necessary for us to issue and sell to the Selling Securityholder under the Purchase Agreement more than the 8,727,049 shares of Senti Common Shares being

registered for resale under this prospectus in order to receive aggregate gross proceeds equal to \$50.0 million under the Purchase Agreement, we must file with the SEC one or more additional registration statements to register under the Securities Act the resale by the Selling Securityholder of any such additional Senti Common Shares we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional Senti Common Shares under the Purchase Agreement. Under applicable Nasdaq rules, in no event may we issue to Chardan more than 19.99% of the total number of Senti Common Shares that were outstanding immediately prior to the execution of the Purchase Agreement, unless we obtain prior stockholder approval or if such approval is not required in accordance with the applicable Nasdaq rules. In addition, Chardan is not obligated to buy any common stock under the Purchase Agreement if such shares, when aggregated with all other common stock then beneficially owned by Chardan and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder), would result in Chardan beneficially owning common stock in excess of 4.99% of our outstanding shares of common stock. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business or results of operation.

Investors who buy common stock from Chardan at different times will likely pay different prices.

Pursuant to the Purchase Agreement, the timing, price and number of shares sold to Chardan will vary depending on when we choose to sell shares, if any, to Chardan. If and when we elect to sell common stock to Chardan pursuant to the Purchase Agreement, after Chardan has acquired such common stock, Chardan may resell all, some or none of such shares at any time or from time to time in its sole discretion and at different prices. As a result, investors who purchase shares from Chardan in this offering at different times will likely pay different prices for those shares, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. Investors may experience a decline in the value of the shares they purchase from Chardan in this offering as a result of future sales made by us to Chardan at prices lower than the prices such investors paid for their shares in this offering.

The sale or issuance of Senti Common Shares to Chardan will result in additional outstanding shares and the resale of Senti Common Shares by Chardan that it acquires pursuant to the Purchase Agreement, or the perception that such sales may occur, could cause the price of Senti Common Shares to decrease.

On August 31, 2022, we entered into the Purchase Agreement with Chardan, pursuant to which Chardan shall purchase from us up to \$50.0 million of Senti Common Shares, upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement. We have issued 100,000 Commitment Shares to Chardan as consideration for its execution and delivery of the Purchase Agreement on the Signing Date. The Senti Common Shares issued under the Purchase Agreement may be sold by us to Chardan at our sole discretion, subject to the satisfaction of certain conditions in the Purchase Agreement, from time to time, until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the effectiveness of this registration statement, (ii) the date on which Chardan has purchased the Total Commitment pursuant to the Purchase Agreement, (iii) the date on which our common stock fails to be listed or quoted on Nasdaq or any successor market, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any Person commences a proceeding against us, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors. The purchase price for Senti Common Shares that we may sell to Chardan under the Purchase Agreement will fluctuate based on the trading price of Senti Common Shares. Depending on market liquidity at the time, sales of Senti Common Shares may cause the trading price of Senti Common Shares to decrease. We generally have the right to control the timing and amount of any future sales of Senti Common Shares to Chardan. Additional sales of Senti Common Shares, if any, to Chardan will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Chardan all, some or none of the additional Senti Common Shares that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell Senti Common Shares to Chardan, after Chardan has acquired Senti Common Shares, Chardan may resell all, some or none of such Senti Common Shares at any time or from time to time in its discretion. Therefore, sales to Chardan by us could result in substantial dilution to the interests of other holders of Senti Common Shares. In addition, if we sell a substantial number of Senti Common Shares to Chardan under the Purchase Agreement, or if investors expect that we will do so, the actual sales of Senti Common Shares or the mere existence of our arrangement with Chardan may make it more difficult for us to sell equity or equity-related

securities in the future at a time and at a price that we might otherwise wish to effect such sales. Other than the issuance of the 100,000 Commitment Shares of our common stock to Chardan, we have issued 300,000 shares of common stock under the Purchase Agreement through October 25, 2023.

We may use proceeds from sales of our common stock made pursuant to the Purchase Agreement in ways with which you may not agree or in ways which may not yield a significant return.

We will have broad discretion over the use of proceeds from sales of our common stock made pursuant to the Purchase Agreement, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds, their ultimate use may vary substantially from their currently intended use. While we expect to use the net proceeds from this offering as set forth in "Use of Proceeds", we are not obligated to do so. The failure by us to apply these funds effectively could harm our business, and the net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock.

USE OF PROCEEDS

All of the Senti Common Shares offered by the Selling Securityholder will be solely for the Selling Securityholder's account. We will not receive any of the proceeds from these sales. We may receive up to \$50.0 million in aggregate gross proceeds from the Selling Securityholder under the Purchase Agreement in connection with sales of our Senti Common Shares to the Selling Securityholder pursuant to the Purchase Agreement after the date of this prospectus. However, the actual proceeds may be less than this amount depending on the number of share of our Senti Common Shares sold and the price at which the Senti Common Shares are sold.

We intend to use any proceeds from any sales of Senti Common Shares to Chardan under the Facility for working capital and other general corporate purposes. Pending other uses, we intend to invest the net proceeds to us in investment-grade, interest-bearing securities such as money market funds, certificates of deposit, or direct or guaranteed obligations of the U.S. government, or hold as cash. We cannot predict whether the net proceeds invested will yield a favorable return. We will have broad discretion in the way we use these proceeds. See "Risk Factors—Risks Related to the Facility—We may use proceeds from sales of our common stock made pursuant to the Purchase Agreement in ways with which you may not agree or in ways which may not yield a significant return."

Chardan will pay any underwriting fees, discounts, selling commissions, stock transfer taxes and certain legal expenses incurred by Chardan in disposing of its shares of common stock, and we will bear all other costs, fees and expenses incurred in effecting the registration of such securities covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our independent registered public accountants.

DETERMINATION OF OFFERING PRICE

We cannot currently determine the price or prices at which the Senti Common Shares may be sold by Chardan under this prospectus. Our Common Shares are listed on Nasdaq under the symbol "SNTI."

SELLING SECURITYHOLDERS

This prospectus relates to the possible offer and resale from time to time by Chardan of up to 8,727,049 Senti Common Shares that have been or may be issued by us to Chardan pursuant to the Purchase Agreement (including shares of common stock that have been or may be issued to Chardan as consideration for it entering into the Purchase Agreement) upon the terms and subject to the conditions and limitations of the Purchase Agreement. For additional information regarding the issuance of the shares of common stock to be offered by Chardan included in this prospectus, see the section titled "Committed Equity Financing." We are registering the shares of common stock included in this prospectus pursuant to the provisions of the Chardan Registration Rights Agreement in order to permit Chardan to offer the shares of common stock for resale from time to time. Except for the transactions contemplated by the Purchase Agreement and as set forth in the section titled "Plan of Distribution (Conflicts of Interest)" in this prospectus, Chardan has not had any material relationship with us or any of our affiliates within the past three years.

The following table is prepared based on information provided to us by the Chardan. It sets forth the name and address of Chardan, the aggregate number of Senti Common Shares that Chardan may offer pursuant to this prospectus, and the beneficial ownership of Chardan both before and after the offering. We have based percentage ownership after this offering on 44,545,186 shares of common stock outstanding as of October 25, 2023.

We cannot advise you as to whether Chardan will in fact sell any or all of such Senti Common Shares or how long the Selling Securityholder will hold any Senti Common Shares before selling them. In addition, Chardan may sell, transfer or otherwise dispose of, at any time and from time to time, the Senti Common Shares in transactions exempt from the registration requirements of the Securities Act after the date of this prospectus. Because the purchase price of the Senti Common Shares that may be issued under the Purchase Agreement is determined on each purchase date with respect to each purchase, the number of Senti Common Shares that we may actually sell to the Selling Securityholder under the Purchase Agreement may be fewer than or more than the number of Senti Common Shares being offered by this prospectus. For purposes of this table, we have assumed that Chardan will have sold all of the securities covered by this prospectus upon the completion of the offering. Any changed or new information given to us by Chardan, including regarding the identity of, and the securities held by, Chardan will be set forth in a prospectus supplement or amendments to the registration statement of which this prospectus is a part, if and when necessary.

Please see the section entitled "Plan of Distribution (Conflicts of Interest)" for further information regarding Chardan's method of distributing these securities.

	Common Stock Beneficially Owned Prior to this Offering		Maximum Number of Common Stock to be Offered Pursuant to this Prospectus	Common Stock Owned After this Offering ⁽³⁾	
Name of Selling Securityholder	Number of Shares	Percent		Number of Shares	Percent
Chardan Capital Markets LLC (1)	100,000 (2)	•	* 8,727,049		_

^{*} Represents beneficial ownership of less than 1%.

⁽¹⁾ In accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares beneficially owned prior to the offering all of the shares that Chardan may be required to purchase upon the terms and subject to the conditions and limitations of the Purchase Agreement, because the issuance of such shares of common stock is solely at our discretion and is subject to conditions and limitations contained in the Purchase Agreement, the satisfaction of which are entirely outside of Chardan's control, including the registration statement that includes this prospectus becoming and remaining effective. Furthermore, the Purchase Agreement prohibits us from issuing and selling any shares of common stock to Chardan to the extent such shares of common stock, when aggregated with all other Senti Common Shares then beneficially owned by Chardan, would cause Chardan's beneficial ownership of our common stock to exceed 4.99%. The Purchase Agreement also prohibits us from issuing or selling shares of common stock under the Purchase Agreement in excess of the 19.99% Exchange Cap, unless we obtain stockholder approval to do so, or unless such approval is not required in accordance with the applicable rules of Nasdaq. The business address of Chardan is 17 State Street, Suite 2130, New York, NY 10004. Chardan is a broker-dealer and a member of the Financial Industry Regulatory Authority, Inc. Mr. Kerry Popper, Mr. Steven Urbach and Mr. Jonas Grossman, are Chardan's Chairman, Chief Executive Officer and President, respectively, and are each Members and Managers of Chardan Securities LLC, which holds a controlling interest in Chardan. The foregoing should not be construed in and of itself as an admission by any of Mr. Popper, Mr. Urbach or Mr. Grossman as to beneficial ownership of the securities beneficially owned by Chardan.

(2)	Represents the 100,	000 Senti Comm	on Shares we i	ssued to the Sel	ling Securityholde	on August 31, 2022	as Commitment S	hares in considera	tion for entering into the	Purchase Agreemen
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(3) Assumes the sale of all shares being offered pursuant to this prospectus.

DESCRIPTION OF SECURITIES

The following description summarizes certain important terms of our capital stock as of the date of this prospectus as specified in our Charter and Bylaws. Because the following description is only a summary, it does not contain all the information that may be important to you. For a complete description of the matters set forth in this section titled "Description of Securities," you should refer to the Charter, the Bylaws and the Registration Rights Agreement, which are included as exhibits to the registration statement of which this prospectus is a part, and to the applicable provisions of Delaware law.

Authorized and Outstanding Stock

The Charter authorizes the issuance of 510,000,000 shares, consisting of 500,000,000 shares of common stock, \$0.0001 par value per share, and 10,000,000 shares of preferred stock, \$0.0001 par value. As of October 25, 2023, there were 44,545,186 shares of common stock outstanding. No shares of preferred stock are currently outstanding.

Common Stock

The Charter provides the following with respect to the rights, powers, preferences and privileges of the Senti Common Shares.

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of Senti Common Shares possess all voting power for the election of the directors and all other matters requiring stockholder action. Holders of Senti Common Shares are entitled to one vote per share on matters to be voted on by stockholders.

Dividends

Holders of Senti Common Shares will be entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor. We have not historically paid any cash dividends on our common stock to date and do not intend to pay cash dividends in the foreseeable future. Any payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial conditions. In no event will any stock dividends or stock splits or combinations of stock be declared or made on Senti Common Shares unless the Senti Common Shares at the time outstanding are treated equally and identically.

Liquidation, Dissolution and Winding Up

In the event of our voluntary or involuntary liquidation, dissolution or winding-up, the net assets of Senti will be distributed pro rata to the holders of Senti Common Shares, subject to the rights of the holders of the preferred stock, if any.

Preemptive or Other Rights

There are no sinking fund provisions applicable to the Senti Common Shares.

Preferred Stock

The Charter provides that shares of preferred stock may be issued from time to time in one or more series. Our board of directors will be authorized to fix designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series of preferred stock and any qualifications, limitations and restrictions thereof. Our board of directors will be able to, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of the Senti Common Shares and could have anti-takeover effects. The ability of our board of directors to issue preferred stock without stockholder approval could have the effect of

delaying, deferring or preventing a change of control of Senti or the removal of existing management. We have no preferred stock currently outstanding.

Registration Rights

We, DYNS, and certain of our stockholders entered into the Investor Rights and Lock-Up Agreement, dated June 8, 2022, pursuant to which, among other things, such stockholders were granted certain registration rights with respect to certain shares of securities held by them. A copy of the Investor Rights and Lock-Up Agreement is attached as an exhibit hereto and incorporated herein by reference.

We and Chardan entered into a Registration Rights Agreement, dated August 31, 2022, pursuant to which, among other things, we agreed to file a registration statement registering the resale by Chardan of shares of Senti Common Stock issued to it by us pursuant to the Common Stock Purchase Agreement, dated August 31, 2022, by and between us and Chardan and to maintain the effectiveness of such resale registration statement. A copy of the Registration Rights Agreement is attached as an exhibit hereto and incorporated herein by reference.

We and GeneFab, LLC ("GeneFab") entered into a letter agreement (the "Option Agreement"), pursuant to which GeneFab has the right to invest up to approximately \$20 million to purchase up to 19,633,444 shares of Senti Common Stock, subject to approval by our stockholders to the extent required pursuant to applicable Nasdaq rules, at a price of \$1.01867 per share in private placements in up to ten installments. Pursuant to the Option Agreement, we also agreed to register all of the shares of common stock purchased by GeneFab under the Option Agreement for resale by filing up to four registration statements, subject to certain conditions and restrictions contained in the Option Agreement which is attached as an exhibit hereto and incorporated herein by reference.

Anti-Takeover Provisions

Charter and Bylaws

Among other things, the Charter and Bylaws (as amended from time to time):

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that our number of directors may be changed only by resolution of our board of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may be removed only with cause by the holders of at least 75% of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, subject to the rights of any series of preferred stock, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called by our board of directors pursuant to a resolution adopted by a majority of the board;
- provide that our board of directors will be divided into three classes of directors, with the directors serving three-year terms, therefore making it more difficult for stockholders to change the composition of the board of directors; and

• not provide for cumulative voting rights, therefore allowing the holders of a majority of the Senti Common Shares entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The combination of these provisions make it more difficult for the existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors will have the power to retain and discharge its officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock will make it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of Senti.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of the our stock.

Certain Anti-Takeover Provisions of Delaware Law

We are subject to the provisions of Section 203 of the DGCL. This statute prevents certain Delaware corporations, under certain circumstances, from engaging in a "business combination" with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an "interested stockholder");
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A "business combination" includes a merger or sale of more than 10% of a corporation's assets. However, the above provisions of Section 203 would not apply if:

- the relevant board of directors approves the transaction that made the stockholder an "interested stockholder," prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of the corporation's voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the initial business combination is approved by the board of directors and authorized at a meeting of the corporation's stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

These provisions may have the effect of delaying, deferring, or preventing changes in control of Senti.

Transfer Agent

Continental Stock Transfer & Trust Company is the transfer agent for the Senti Common Shares.

Trading Symbol and Market

Senti Common Shares are listed on Nasdaq under the symbol "SNTI".

PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We are registering the resale by Chardan of up to 8,727,049 Senti Common Shares, including 100,000 Senti Common Shares that have been issued to Chardan as Commitment Shares under the Purchase Agreement. Although the Purchase Agreement provides that we may sell up to an aggregate of \$50.0 million of Senti Common Shares to the Selling Securityholder, only 8,727,049 Senti Common Shares issuable under the Facility, including the 100,000 Commitment Shares issued to Chardan as consideration for its execution and delivery of the Purchase Agreement on the Signing Date, are being registered for resale under the registration statement that includes this prospectus. The actual number of Senti Common Shares issuable will vary depending on the then current market price of Senti Common Shares sold to Chardan in this offering.

We will not receive any of the proceeds from the sale of the securities by Chardan. However, we may receive up to \$50.0 million in aggregate gross proceeds from Chardan under the Purchase Agreement in connection with sales of Senti Common Shares to Chardan pursuant to the Purchase Agreement after the date of this prospectus. The aggregate proceeds to Chardan will be the purchase price of the securities less any discounts and commissions borne by Chardan.

Once issued and upon effectiveness of the registration statement of which this prospectus forms a part, the securities beneficially owned by Chardan covered by this prospectus may be offered and sold from time to time by Chardan, including any donees, pledgees, transferees or other successors in interest selling securities received after the date of this prospectus from Chardan as a gift, pledge, partnership distribution or other transfer. Chardan will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. Chardan reserves the right to accept and, together with its respective agents, to reject, any proposed purchase of securities to be made directly or through agents. Chardan and any of its permitted transferees may sell their securities offered by this prospectus on any stock exchange, market or trading facility on which the securities are traded or in private transactions.

Subject to any limitations set forth in any applicable agreement that provides for registration rights, Chardan may use any one or more of the following methods when selling the securities offered by this prospectus:

- · purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- · one or more underwritten offerings;
- block trades in which the broker-dealer so engaged will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- an exchange distribution in accordance with the rules of the applicable exchange;
- in market transactions, including transactions on a national securities exchange or quotations service or over-the-counter market;
- · distributions to their members, partners or stockholders;
- settlement of short sales entered into after the date of the registration statement of which this prospectus is a part is declared effective by the SEC;
- agreements with broker-dealers to sell a specified number of the securities at a stipulated price per share;
- in "at the market" offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made

directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;

- · directly to purchasers, including through a specific bidding, auction or other process or in privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- through a combination of any of the above methods of sale; or
- any other method permitted pursuant to applicable law.

We are required to pay all fees and expenses incident to the registration of shares of the Senti Common Shares to be offered and sold pursuant to this prospectus.

Chardan is a selling securityholder and is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act. Chardan is a registered broker-dealer and FINRA member and has informed us that it presently anticipates effectuating resales, if any, of our common shares that it may acquire from us pursuant to the Purchase Agreement, and that it may also engage one or more other registered broker-dealers to effectuate resales, if any, of such shares that it may acquire from us. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such registered broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Chardan has informed us that each such broker-dealer (excluding Chardan), may receive commissions from Chardan for executing such sales for Chardan and, if so, such commissions will not exceed customary brokerage commissions.

As consideration for its irrevocable commitment to, at our request, purchase our shares of common stock under the Purchase Agreement, we issued 100,000 shares of common stock with a value of \$196,000 to Chardan upon execution of the Purchase Agreement. The \$1.96 value of the Commitment Shares is based on the closing price of the Company's shares of common stock on Nasdaq on August 31, 2022. In accordance with FINRA Rule 5110, the \$196,000 value of the Commitment Shares (calculated at the time such shares were issued) is deemed underwriting compensation in connection with sales of the shares of common stock by Chardan to the public. In addition, pursuant to the Purchase Agreement we have also agreed to pay a document preparation fee of \$350,000 to Chardan prior to the Signing Date. We also have agreed to reimburse Chardan up to \$100,000 for the fees and disbursements of its counsel in connection with the transactions contemplated by the Purchase Agreement and up to \$25,000 per fiscal quarter thereafter for up to 36 months, or up to \$400,000 in the aggregate, in connection with Chardan's ongoing due diligence review. In accordance with FINRA Rule 5110 these reimbursed fees and expenses are deemed underwriting compensation in connection with sales of shares of common stock by Chardan to the public. The Commitment Shares will not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the Commitment Shares for a period of 180 days beginning on the date of commencement of sales of the public offering under the Facility, except as provided in FINRA Rule 5110(e)(2).

The total underwriting compensation to be received in connection with sales of shares of common stock by Chardan to the public, as determined under FINRA Rule 5110, will not exceed 8% of the maximum dollar amount of common shares to be sold to the public under the Facility.

We also have agreed to indemnify Chardan and certain other persons against certain liabilities in connection with the offering of Senti Common Shares offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Chardan has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Chardan specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, Chardan may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of shares of common stock in the course of hedging transactions, and broker-dealers or other financial institutions may engage in short sales of shares of common stock in the course of hedging the positions they assume with Chardan. Chardan may also sell shares of common stock short and redeliver the shares to close out such short positions. Chardan may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Chardan may also pledge shares to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution may effect such transaction).

Chardan may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by any Shareholder or borrowed from any Shareholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from any Shareholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, any Shareholder may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In effecting sales, broker-dealers or agents engaged by Chardan may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from Chardan in amounts to be negotiated immediately prior to the sale.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised Chardan that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of Chardan and its affiliates. In addition, we will make copies of this prospectus available to Chardan for the purpose of satisfying the prospectus delivery requirements of the Securities Act. Chardan may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallowed or paid to any dealer, and the proposed selling price to the public.

We know of no existing arrangements between Chardan or any other shareholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares of common stock offered by this prospectus.

Conflicts of Interest

Chardan is a member of FINRA and is expected to act as an executing broker for the resale of the Senti Common Shares in this offering. The receipt by Chardan of all the proceeds from resales of Senti Common Shares results in a "conflict of interest" under FINRA Rule 5121. Accordingly, such resales will be conducted in compliance with FINRA Rule 5121. To the extent that the Senti Common Shares do not have a "bona fide public

market", as defined in FINRA Rule 5121, a qualified independent underwriter will participate in the preparation of, and exercise the usual standards of "due diligence" with respect to, the registration statement. LifeSci Capital, LLC has agreed to act as qualified independent underwriter for this offering and will receive an upfront fee of \$100,000 and, beginning one year after the date of the Purchase Agreement, quarterly fees of \$25,000 for doing so. Pursuant to FINRA Rule 5121, Chardan will not confirm resales of Senti Common Shares to any account over which it exercises discretionary authority without the prior written approval of the customer.

LEGAL MATTERS

Goodwin Procter LLP has passed upon the validity of the Senti Common Shares offered by this prospectus and certain other legal matters related to this prospectus.

EXPERTS

The consolidated financial statements of Senti Biosciences, Inc. and its subsidiaries as of December 31, 2022 and 2021, and for each of the years in the two-year period ended December 31, 2022, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2022 consolidated financial statements contains an explanatory paragraph that states that Senti Biosciences, Inc. and its subsidiaries have incurred recurring losses and negative cash flows from operations and has an accumulated deficit that raises substantial doubt about the entity's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth or incorporated by reference in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. You may obtain copies of the registration statement and its exhibits via the SEC's EDGAR database. We have also filed a registration statement on Form S-1, including exhibits, under the Securities Act, with respect to the common stock offered by this prospectus.

In addition, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public on a website maintained by the SEC located at *www.sec.gov*. We also maintain a website at *https://sentibio.com/*. Through our website, we make available, free of charge, annual, quarterly and current reports, proxy statements and other information as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained on, or that may be accessed through, our website is not part of, and is not incorporated into, this prospectus. Information contained on our website is not a part of or incorporated by reference into this prospectus and the inclusion of our website and investor relations website addresses in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This registration statement incorporates by reference important business and financial information about us that is not included in or delivered with this document. The information incorporated by reference is considered to be part of this prospectus, and the SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. Any statement contained in this prospectus or a document incorporated or deemed to be incorporated by reference herein or therein shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained herein or in any subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes that prior statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be considered in its unmodified or superseded form to constitute a part of this prospectus, except as so modified or superseded.

We hereby incorporate by reference into this prospectus the following documents that we have filed with the SEC under the Exchange Act:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 22, 2023;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2022, from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on May 1, 2023;
- Quarterly Reports on Form 10-Q for the quarters ended <u>March 31, 2023</u> and <u>June 30, 2023</u>, filed with the SEC on May 9, 2023 and August 11, 2023, respectively;
- Current Reports on Form 8-K filed with the SEC on <u>January 9, 2023</u>, <u>January 27, 2023</u>, <u>March 22, 2023</u>, <u>April 28, 2023</u>, <u>May 9, 2023</u>, <u>June 23</u>, <u>2023</u>, <u>August 10, 2023</u>, <u>August 11, 2023</u> and <u>August 11, 2023</u> (excluding information furnished pursuant to Items 2.02 or 7.01, or corresponding information furnished under Item 9.01 or included as an exhibit); and
- The description of our securities contained in our Annual Report on <u>Form 10-K</u> filed with the SEC on March 22, 2023, including any amendments or reports filed for the purpose of updating such description.

All documents that we file pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than any such documents or portions thereof that are deemed to have been furnished and not filed in accordance with the rules of the SEC), after the date hereof and prior to the termination of an offering of securities under this prospectus shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, the applicable prospectus supplement and any previously filed documents.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. Any such request may be made by writing or calling us at the following address or phone number:

Senti Biosciences, Inc. 2 Corporate Drive, First Floor South San Francisco, CA 94080 Telephone: (650) 239-2030 Attention: Investor Relations

8,727,049 Shares of Common Stock



PROSPECTUS

November 3, 2023

You should rely only on the information contained in this prospectus or any supplement or amendment hereto. We have not authorized anyone to provide you with different information. You should not assume that the information contained in this prospectus or any supplement or amendment hereto is accurate as of any date other than the date of this prospectus or any such supplement or amendment. Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.