
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 5)***

Spruce Biosciences, Inc.
(Name of Issuer)

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

85209E 109
(CUSIP Number)

**Barbara Fiorini Due
Novo Holdings A/S
Tuborg Havnevej 19
Hellerup, Denmark DK-2900
+45 3527 6592**

Copy to:

**B. Shayne Kennedy, Esq.
Latham & Watkins LLP
650 Town Center Drive, 20th Floor
Costa Mesa, CA 92626
Telephone: (714) 540-1235**

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

March 14, 2024
(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 which is subject of this Schedule 13D, and is filing this statement because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

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 (the "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).

1.	Name of Reporting Person: Novo Holdings A/S	
2.	Check the Appropriate Box if a Member of Group (See Instructions): (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC Use Only:	
4.	Source of Funds: WC	
5.	Check if Disclosure of Legal Proceedings is Required Pursuant to <u>Items 2(d)</u> or <u>2(e)</u>: <input type="checkbox"/>	
6.	Citizenship or Place of Organization: Denmark	
Number of Shares Beneficially Owned By Each Reporting Person With:	7.	Sole Voting Power: 6,466,020 (1)
	8.	Shared Voting Power: 0
	9.	Sole Dispositive Power: 6,466,020 (1)
	10.	Shared Dispositive Power: 0
11.	Aggregate Amount Beneficially Owned by Each Reporting Person: 6,466,020 (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares: <input type="checkbox"/>	
13.	Percent of Class Represented By Amount In Row (11): 15.1% (2)	
14.	Type of Reporting Person: CO	

- (1) Represents (i) 4,810,020 shares of Common Stock and (ii) currently exercisable warrants to acquire 1,656,000 shares of common stock at an exercise price of \$3.96 per share.
- (2) Based upon (i) 41,149,160 shares of the Issuer's Common Stock outstanding as of March 14, 2024, as reported in the Issuer's 10-K filed with the Securities and Exchange Commission (the "SEC"), plus (ii) 1,656,000 shares of Common Stock issuable upon the exercise of the warrants held by Novo Holdings A/S.

This amendment (“Amendment No. 5”) amends the Schedule 13D originally filed with the SEC on October 16, 2020, as subsequently amended by Amendment No. 1 filed on May 21, 2021, Amendment No. 2 filed on November 22, 2022, Amendment No. 3 filed on September 30, 2022, and Amendment No. 4 filed on February 21, 2023 (collectively, the “Schedule”), to report and reflect a reduction in the beneficial ownership of the Issuer’s common stock. All capitalized terms contained herein but not otherwise defined shall have the meanings ascribed to such terms in the Schedule.

Item 2. Identity and Background

Item 2 is amended and replaced in its entirety as follows:

- (a) Novo Holdings A/S, a Danish corporation, is an investment firm focused on life sciences and finance that is wholly owned by Novo Nordisk Foundation (the “Foundation”), a Danish commercial foundation. Novo Holdings A/S is the holding company in the group of Novo companies (currently comprised of Novo Nordisk A/S and Novozymes A/S) and is responsible for managing the Foundation’s assets, including its financial assets. Based on the governance structure of Novo Holdings A/S and the Foundation, the Foundation is not deemed to have any beneficial ownership of the securities of the Issuer held by Novo Holdings A/S.

The name of each director and executive officer of both Novo Holdings A/S and the Foundation is set forth on the updated Schedule I to this Amendment No. 5.

- (b) The business address of both Novo Holdings A/S and the Foundation is Tuborg Havnevej 19, 2900 Hellerup, Denmark.

The residence or business address of each director and executive officer of both Novo Holdings A/S and the Foundation is set forth on the updated Schedule I to this Schedule 13D.

- (c) Novo Holdings A/S, a holding company that is responsible for managing the Foundation’s assets, provides seed and venture capital to development stage companies and invests in well-established companies within the life science and biotechnology sector.

The Foundation is a Danish self-governing and profit-making foundation, whose objectives are to provide a stable basis for commercial and research activities undertaken by the group of Novo companies and to support scientific, humanitarian and social purposes through grants.

- (d) Within the last five years, neither Novo Holdings A/S, the Foundation, nor any person named in the updated Schedule I has been convicted in any criminal proceedings.

- (e) Within the last five years, neither Novo Holdings A/S, the Foundation, nor any person named in the updated Schedule I was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 amends and supplements Item 3 in the Schedule to reflect sales of the Issuer’s stock during the past 60 days, as follows:

On March 14, 2024, Novo Holdings A/S sold 1,912,316 shares in the open market at an average weighted price per share of \$0.8884, with prices ranging from \$0.78 to \$1.08.

Item 5. Interest in Securities of the Issuer

Item 5 is amended and replaced in its entirety as follows:

- (a) Novo Holdings A/S beneficially owns 6,466,020 shares of Common Stock (the “Novo Shares”) representing approximately 15.1% of the Issuer’s outstanding shares of Common Stock, based upon (i) 41,149,160 shares of the Issuer’s Common Stock outstanding as of March 14, 2024, as reported in the Issuer’s 10-K filed with the SEC, plus (ii) 1,656,000 shares of Common Stock issuable upon the exercise of the warrants held by Novo Holdings A/S.
- (b) Novo Holdings A/S is a Danish corporation wholly owned by the Novo Nordisk Foundation. Novo Holdings A/S has the sole power to vote and dispose of the Novo Shares. Neither the Foundation nor any person listed on the updated Schedule I has the power to direct the vote as to, or the disposition of the Novo Shares.
- (c) Except as disclosed in Item 3, Novo Holdings A/S has not effected any transactions in the Issuer’s Common Shares within the past 60 days and neither the Foundation nor any person listed on the updated Schedule I has effected any transactions in the Issuer’s Common Shares within the past 60 days.
- (d) Novo Holdings A/S does not know of any other person having the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Novo Shares.
- (e) Not applicable.

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.

Dated: March 18, 2024

Novo Holdings A/S

/s/ Barbara Fiorini Due

By: Barbara Fiorini Due

Its: General Counsel, Finance & Operations

Schedule I

Information regarding each director and executive officer of both Novo Holdings A/S and the Novo Nordisk Foundation is set forth below.

Name, Title	Novo Holdings A/S		Citizenship
	Address	Principal Occupation	
Lars Rebien Sørensen, Chair of the Board	Via Volpini 35 53040 Cetona SI Italy	Professional Board Director	Denmark
Steen Riisgaard, Vice Chair of the Board	Hestetangsvej 155, 3520 Farum, Denmark	Professional Board Director	Denmark
Jean-Luc Butel, Board Director	235 Arcadia Road, unit 10-3, Singapore 289843 Singapore	Global Healthcare Advisor, President, K8 Global Pte Ltd.	Singapore
Jeppe Christiansen, Board Director	Classensgade 59, 5. th, 2100 Copenhagen Ø, Denmark	Chief Executive Officer, Fondsmæglersekskabet Maj Invest A/S	Denmark
Francis Michael Cyprian Cuss, Board Director	111 Rippling Brook Way, Bernardsville, NJ 07924 USA	Biopharmaceutical Consultant	United Kingdom United States
Viviane Monges, Board Director	Chemin de Craivavers 32, 1012 Lausanne, Switzerland	Professional Board Director	France
Henrik Poulsen, Board Director	Emiliekildevej 36 2930 Klampenborg Denmark	Senior Advisor, A.P. Møller Holding and Professional Board Director	Denmark
Britt Meelby Jensen Board Director	Bukkeballevvej 10 2960 Rungsted Kyst Denmark	Chief Executive Officer, Ambu A/S	Denmark
Susanne Antonie Schaffert Board Director	Am Eichenwald 18 91054 Erlangen Germany	Professional Board Director	Germany
Kasim Kutay, Chief Executive Officer	Bredgade 65, 3.tv. 1260 Copenhagen K. Denmark	Chief Executive Officer, Novo Holdings A/S	United Kingdom
Nigel Kevin Govett Chief Financial Officer	Ingeborg Vænge 2, 2960 Rungsted Kyst Denmark	Chief Financial Officer, Novo Holdings A/S	United Kingdom

Novo Nordisk Foundation

<u>Name, Title</u>	<u>Address</u>	<u>Principal Occupation</u>	<u>Citizenship</u>
Lars Rebien Sørensen, Chair of the Board	Via Volpini 35 53040 Cetona SI Italy	Professional Board Director	Denmark
Lars Henrik Munch, Vice Chair of the Board	Galionsvej 46 1437 København K Denmark	Professional Board Director	Denmark
Steen Riisgaard, Board Director	Hestetangsvej 155 3520 Farum Denmark	Professional Board Director	Denmark
Lars Henrik Fugger, Board Director	72 Staunton Road, Headington OX3 7TP Oxford Great Britain	Professor, John Radcliffe Hospital, University of Oxford, Oxford, Great Britain	Denmark
Liselotte Højgaard, Board Director	Grønningen 21, 4. 1270 København K Denmark	Professor	Denmark
Nana Sejbaek, Board Director	Vinrankevej 3 2900 Hellerup Denmark	Operating Advisor with Goldman Sachs Asset Management and Professional Board Director	Denmark
Christopher Ashby Voigt Board Director	57 Elizabeth Road Belmont, MA 02478-3819 USA	Professor of Advanced Biotechnology at Massachusetts Institute of Technology (MIT)	USA
Mads Boritz Grøn, Board Director	Horsevænget 4 3400 Hillerød Denmark	Senior Lead Auditor, Novo Nordisk A/S	Denmark
Ole Jakob Müller, Board Director	Borgmester Jensens A 11, 4. 00003 2100 Copenhagen Ø Denmark	Senior Environmental Specialist, Novozymes A/S	Denmark
Stig Strøbaek, Board Director	Furesøgårdsvej 2 3520 Farum Denmark	Electrician, Novo Nordisk A/S	Denmark
Mads Krogsgaard Thomsen, Chief Executive Officer	Præstevejen 38 3230 Græsted Denmark	Chief Executive Officer, Novo Nordisk Foundation	Denmark