UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 4)*

Milestone Pharmaceuticals Inc.

(Name of Issuer)

Common Shares, no par value per share (Title of Class of Securities)

59935V107 (CUSIP Number)

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

Copy to:

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

September 20, 2022 (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 it	s 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).

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1.	Name of Reporting Person:						
	Novo Holdings A/S						
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2.	Check	the	Appropriate Box is a Member of Group (See Instructions).				
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(1) Based upon 30,010,873 shares of the Issuer's Common Stock outstanding as of August 10, 2022, as reported in the Issuer's Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on August 10, 2022.

This amendment ("<u>Amendment No. 4</u>") amends the Schedule 13D originally filed with the SEC on May 14, 2019, as subsequently amended by Amendment No. 1 filed on September 20, 2019, Amendment No. 2 filed on November 27, 2019 and Amendment No. 3 filed on March 12, 2020 (collectively, the "<u>Schedule</u>"). 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. 4.
- (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 September 9, 2022, Novo Holdings A/S sold 6,591 shares at \$8.76 per share in the open market.

On September 12, 2022, Novo Holdings A/S sold 42,798 shares at \$9.35 per share in the open market.

On September 13, 2022, Novo Holdings A/S sold 53,436 shares at \$8.99 per share in the open market.

On September 14, 2022, Novo Holdings A/S sold 44,037 shares at \$8.97 per share in the open market.

On September 15, 2022, Novo Holdings A/S sold 42,289 shares at \$9.13 per share in the open market.

On September 16, 2022, Novo Holdings A/S sold 16,909 shares at \$9.11 per share in the open market.

On September 19, 2022, Novo Holdings A/S sold 30,239 shares at \$9.19 per share in the open market.

On September 20, 2022, Novo Holdings A/S sold 109,922 shares at \$9.60 per share in the open market.

On September 21, 2022, Novo Holdings A/S sold 46,278 shares at \$8.92 per share in the open market.

On September 22, 2022, Novo Holdings A/S sold 35,667 shares at \$8.30 per share in the open market.

On September 23, 2022, Novo Holdings A/S sold 4,124 shares at \$8.12 per share in the open market.

Item 4. Purpose of Transaction

Item 4 is amended and replaced in its entirety as follows:

Novo Holdings A/S purchased the Issuer securities based on its belief that the Issuer securities, when purchased, constituted an attractive investment opportunity. Depending upon overall market conditions, other investment opportunities available to Novo Holdings A/S, and the availability of Issuer securities at prices that would make the purchase or sale of such securities desirable, Novo Holdings A/S may endeavor to increase or decrease its position in the Issuer through, among other things, the purchase or sale of Issuer securities on the open market or in private transactions or otherwise, on such terms and at such times as Novo Holdings A/S may deem advisable.

Novo Holdings A/S does not have any present plan or proposal which would relate to or result in any of the matters set forth in subparagraphs (a)—(j) of Item 4 of Schedule 13D except as set forth herein or such as would occur upon or in connection with completion of, or following, any of the actions discussed herein. Depending on various factors including, without limitation, the Issuer's financial position, results and strategic direction, actions taken by the Issuer's management and Board of Directors (the "Board"), other investment opportunities available to Novo Holdings A/S, the price levels of the Issuer securities, conditions in the securities markets and general economic and industry conditions, Novo Holdings A/S may in the future take such actions with respect to its investment in the Issuer as it deems appropriate including, without limitation, engaging in communications and information exchanges with the Issuer's management and Board, engaging in discussions with shareholders of the Issuer or other third parties about the Issuer and Novo Holdings A/S's investment, making recommendations concerning changes to the Issuer's operations, governance or capitalization, potential business combinations or dispositions involving the Issuer or certain of its businesses, or suggestions for improving the Issuer's financial and/or operational performance, acquiring additional Issuer securities, disposing of some or all of such securities, or changing its intention with respect to any and all matters referred to in Item 4.

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 2,097,713 shares of Common Stock (the "Novo Shares") representing approximately 7.0% of the Issuer's outstanding shares of Common Stock, based upon 30,010,873 shares of the Issuer's Common Shares outstanding as of August 10, 2022, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2022.
- (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 described herein, 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: September 26, 2022 Novo Holdings A/S

/s/ Barbara Fiorini Due

By: Barbara Fiorini Due

Its: General Counsel, Finance & Operations

$\underline{Schedule\ I}$

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

Novo Holdings A/S

	Novo Hola			
Name, Title	Address	Principal Occupation	Citizenship	
Lars Rebien Sørensen, Chairman of the Board	Christianholms Tværvej 27, 2930 Klampenborg Denmark	Professional Board Director	Denmark	
Steen Riisgaard, Vice Chairman of the Board	Hestetangsvej 155, 3520 Farum, Denmark	Professional Board Director	Denmark	
Jean-Luc Butel, Director	235 Arcadia Road unit # 10-3 289843 Singapore	Global Healthcare Advisor, President, K8 Global Pte Ltd.	Singapore	
Jeppe Christiansen, Director	c/o Kasper Fonager Christiansen Classensgade 59, 5. th. 2100 Kobenhavn Ø Denmark	Chief Executive Officer, Fondsmaeglerselskabet Maj Invest A/S	Denmark	
Francis Michael Cyprian Cuss, Director	111 Rippling Brook Way, Bernardsville, NJ 07924 USA	Former Executive Vice President and Chief Scientific Officer of Bristol-Myers Squibb	United Kingdom	
Britt Meelby Jensen Director	Bukkeballevej 10 2960 Rungsted Kyst Denmark	Professional Board Director	Denmark	
Viviane Monges, Director	Chemin de Craivavers 32, 1012 Lausanne, Switzerland	Professional Board Director	France	
Henrik Poulsen, Director	Emiliekildevej 36 2930 Klampenborg Denmark	Professional Board Director and Senior Advisor, A.P. Møller Holding A/S,	Denmark	
Kasim Kutay, Chief Executive Officer of Novo Holdings A/S	Bredgade 65, 3.tv. 1260 Copenhagen K. Denmark	Chief Executive Officer of Novo Holdings A/S	United Kingdom	
Nigel Kevin Govett Chief Financial Officer of Novo Holdings A/S	Kløvervang 10, 2970 Hørsholm, Denmark	Chief Financial Officer of Novo Holdings A/S	United Kingdom	
	Novo Nordisk	Foundation		
Name, Title	Address	Principal Occupation	Citizenship	
Lars Rebien Sørensen, Chairman of the Board	Christianholms Tværvej 27 2930 Klampenborg Denmark	Professional Board Director	Denmark	
Marianne Philin	Annaevei 28	Attorney	Denmark	

Name, Title	Address	Principal Occupation	Citizenship
Lars Rebien Sørensen, Chairman of the Board	Christianholms Tværvej 27 2930 Klampenborg Denmark	Professional Board Director	Denmark
Marianne Philip, Vice Chairman of the Board	Annasvej 28 2900 Hellerup Denmark	Attorney	Denmark

Novo Nordisk Foundation								
Name, Title	Address	Principal Occupation	Citizenship					
Mads Krogsgaard Thomsen, Chief Executive Officer	Præstevejen 38 3230 Græsted Denmark	Chief Executive Officer, Novo Nordisk Foundation	Denmark					
Ole Jakob Müller, Director	Borgmester Jensens A 11, 4. 003 2100 København Ø Denmark	Environmental Consultant	Denmark					
Lars Henrik Fugger, Director	72 Staunton Road, Headington Great Britain	Professor, John Radcliffe Hospital, University of Oxford, Oxford, Great Britain	Denmark					
Lars Henrik Munch, Director	Galionsvej 46 1437 Copenhagen K Denmark	Professional Board Director	Denmark					
Liselotte Højgaard, Director	Grønningen 21 1270 Copenhagen K Denmark	Professor	Denmark					
Mads Boritz Grøn, Director	Horsevænget 4 3400 Hillerød Denmark	Senior Lead Auditor	Denmark					
Steen Riisgaard, Director	Hestetangsvej 155 3520 Farum Denmark	Professional Board Director	Denmark					
Stig Strøbaek, Director	Furesøgårdsvej 2 3520 Farum Denmark	Electrician	Denmark					