UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

Morphic Holding, Inc.

(Name of Issuer)

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

> 61775R105 (CUSIP Number)

Peter Haahr 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 3, 2021 (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(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).

CUSIP No.: 61775R105

1.	Name of Reporting Person:							
	Novo	Novo Holdings A/S						
2.	Check (a) □	Check the Appropriate Box if a Member of Group (See Instructions):						
(a) □ (b) □								
3.	SEC Use Only:							
4.	Source	Source of Funds:						
	WC							
5.	Check	Check if Disclosure of Legal Proceedings is Required Pursuant to <u>Items 2(d)</u> or <u>2(e)</u> :						
6.	Citizei	nship o	or Place of Organization:					
	Denma	ark						
		7.	Sole Voting Power:					
	mber of		2,645,446					
	hares eficially	8.	Shared Voting Power:					
	ned By Each		0					
Re	porting	9.	Sole Dispositive Power:					
	erson With:		2,645,446					
		10.	Shared Dispositive Power:					
			0					
11.	Aggre	gate A	mount Beneficially Owned by Each Reporting Person:					
		2,645,446						
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares:							
13.	Percer	Percent of Class Represented By Amount In Row (11):						
		7.4% (1)						
14.	Type of Reporting Person:							
	СО							

(1) Based upon 35,537,686 shares of the Issuer's Common Stock outstanding after the Issuer's public offering, as reported in the Issuer's prospectus (Form 424B5) filed with the Securities and Exchange Commission ("SEC") on March 3, 2021.

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This amendment ("Amendment No. 1"), amends the Schedule 13D originally filed with the Securities and Exchange Commission ("SEC") on July 1, 2019, to report a decrease in beneficial ownership of common stock of the Issuer held by Novo Holdings A/S resulting from an increase in the current number of outstanding shares reported by the Issuer. All capitalized terms contained herein but not otherwise defined shall have the meaning 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 is a Danish limited liability company 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. Nilesh Kumar, Ph.D. is employed as a partner at Novo Ventures (US), Inc. and was designated to the board of directors of the Issuer by Novo Holdings A/S in July 2017. Dr. Kumar is not deemed to be a beneficial owner of the securities 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 <u>Schedule I</u> to this Schedule 13D.

(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 <u>Schedule I</u> 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 <u>Schedule I</u> 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 <u>Schedule I</u> 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 5. Interest in Securities of the Issuer

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

(a) Novo Holdings A/S beneficially owns 2,645,446 shares of Common Stock (the "<u>Novo Shares</u>") representing approximately 7.4% of the Issuer's outstanding shares of Common Stock, based upon 35,537,686 shares of the Issuer's Common Stock outstanding after the Issuer's public offering of 3,500,000 shares of Common Stock, assuming no exercise of the underwriters' over-allotment option in connection with the public offering, as reported in the Issuer's prospectus (Form 424B5) filed with the SEC on March 3, 2021.

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(b) Novo Holdings A/S is a Danish limited liability company wholly owned by the Novo Nordisk Foundation. Novo Holdings A/S, through its Board of Directors (the "<u>Novo Board</u>"), has the sole power to vote and dispose of the Novo Shares. The Novo Board may exercise voting and dispositive control over the Novo Shares with approval by a majority of the Novo Board. As such, no individual member of the Novo Board is deemed to hold any beneficial ownership or reportable pecuniary interest in the Novo Shares. Except as described in this Amendment No 1, neither the Foundation nor any person listed on Schedule I has the power to direct the vote as to, or the disposition of, the Novo Shares.

(c) Novo Holdings A/S has not effected any transactions in the Issuer's Common Stock within the past 60 days and neither the Foundation nor any person listed on <u>Schedule I</u> has effected any transactions in the Issuer's Common Stock 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 11, 2021

Novo Holdings A/S

/s/ Peter Haahr

By: Peter Haahr Its: Chief Financial Officer

<u>Schedule I</u>

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							
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 #03-04 28984 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				
Viviane Monges, Director	Chemin de Craivavers 32, 1012 Lausanne, Switzerland	Professional Board Director	France				
Poul Carsten Stendevad, Director	3220 Idaho Ave NW Washington, DC 20016 USA	Senior Fellow, Bridgewater Associates	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				
Peter Haahr, Chief Financial Officer of Novo Holdings A/S	Ordrup Have 21 2900 Charlottenlund Denmark	Chief Financial Officer of Novo Holdings A/S	Denmark				
	Novo Nordisk Foundatio	on					
Name, Title	Address	Principal Occupation	Citizenship				
Lars Rebien Sørensen, Chairman of the Board	Christianholms Tværvej 27 2930 Klampenborg	Professional Board Director	Denmark				

Marianne Philip, Vice Chairman of the Board Annasvej 28 2900 Hellerup Denmark

Denmark

Attorney

Denmark

Novo Nordisk Foundation							
Name, Title	Address	Principal Occupation	Citizenship				
Steen Riisgaard, Director	Hestetangsvej 155 3520 Farum Denmark	Professional Board Director	Denmark				
Mads Krogsgaard Thomsen, Chief Executive Officer	Præstevejen 38 3230 Græsted Denmark	Chief Executive Officer, Novo Nordisk Foundation	Denmark				
Anne Marie Kverneland, Director	Nybrovej 216 2800 Kgs. Lyngby Denmark	Laboratory technician, Novo Nordisk A/S	Denmark				
Lars Bo Køppler, Director	Anemonevej 7 3550 Slangerup Denmark	Technician, Novozymes A/S	Denmark				
Lars Fugger, Director	72 Staunton Road, Headington OX3 7TP 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				
Mads Boritz Grøn, Director	Horsevænget 4 3400 Hillerød Denmark	Senior Lead Auditor	Denmark				
Liselotte Højgaard, Director	Grønningen 21 1270 Copenhagen K Denmark	Professor	Denmark				