

ARADIGM CORP  
Form SC 13D/A  
September 29, 2004

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**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**SCHEDULE 13D**  
**(Rule 13d-101)**

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULE  
13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(a)**

**(Amendment No. 4)\***

**ARADIGM CORPORATION**

(Name of Issuer)

**COMMON STOCK**  
**NO PAR VALUE**  
(Title of Class of Securities)

**038505-103**  
**(CUSIP Number)**

**Ole Ramsby**  
**Novo Nordisk A/S**  
**Novo Alle**  
**DK-2880 Bagsvaerd**  
**Denmark**  
**Tel No.: +45 4444 8888**  
(Name, Address and Telephone Number of Person Authorized  
to Receive Notices and Communications)

September 28, 2004  
(Date of Event which Requires Filing of this Statement)

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If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule 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 for other parties to whom copies are to be sent.

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\* 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.

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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 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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CUSIP No. 038505-103

13D

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1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	Novo Nordisk A/S	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*  (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS*  OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)  <input type="radio"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  The Kingdom of Denmark	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  7,868,369
	8	SHARED VOTING POWER  7,251,121
	9	SOLE DISPOSITIVE POWER  7,868,369

	10	SHARED DISPOSITIVE POWER  7,251,121
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  15,119,490 See Item 5	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  0	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  21.68% See Item 5	
14	TYPE OF REPORTING PERSON  CO	

**Item 1. Security and Company.**

Novo Nordisk A/S, a publicly quoted Danish Company, (**Buyer**) hereby amends and supplements its Report on Schedule 13D, originally filed on November 14, 2001 (as amended and supplemented, the **Schedule 13D**) with respect to the shares of Common Stock, no par value (the **Shares**) of Aradigm Corporation, a California Corporation (the **Issuer**). As described more fully below, this Schedule 13D also relates to the Issuer's Series A Convertible Preferred Stock (the **Preferred Shares**). The Preferred Shares are convertible into Shares on the basis of four Shares for each Preferred Share. In addition, the Preferred Shares are entitled to vote on an  as if converted  basis on all matters submitted to a vote of holders of Shares. In that event the Preferred Shares vote together with the Shares as one class. In addition, the certificate of designation for the Preferred Shares requires the approval of the holders of Preferred Shares voting as a separate class in the case of certain corporate actions and a separate class vote of Preferred Shares will be required in order to consummate the transactions described below. Unless otherwise indicated, all further references to  Shares  in this Schedule 13D include Preferred Shares on the assumption that all Preferred Shares had been converted into Shares. The Issuer's principal executive offices are located at 3929 Point Eden Way, Hayward, California, 94545.

Unless otherwise indicated, each capitalized term used but not defined herein shall have the meaning assigned to such term in the Schedule 13D.

**Item 2. Identity and Background.**

The address of the principal business office of Buyer is Novo Alle, DK-2880 Bagsværd, Denmark. Buyer is a focused healthcare company that manufactures and markets pharmaceutical products and services for the treatment of diabetes, coagulation disorders, human growth hormone and hormone replacement therapy. Buyer holds 7,868,369 Shares both directly (1,020,612 Shares) and indirectly through Novo Nordisk Pharmaceuticals, Inc. (6,847,757 Shares) a Delaware corporation (**NN Pharmaceuticals**) whose principal business office is located at 100 College Road, Princeton, New Jersey 08540. NN Pharmaceuticals is a manufacturer and supplier of insulin to the United States diabetes market and throughout the world. NN Pharmaceuticals is a wholly-owned

subsidiary of Novo Nordisk of North America, Inc. (**NN North America**). NN North America is a Delaware corporation whose principal place of business is Brandywine Plaza ☐ Suite 282, 103 Foulk Road, Wilmington, DE 19803. NN North America's primary business is the provision of corporate staff services for the U.S. based pharmaceutical operations of Buyer. NN North America is wholly owned by Buyer.

Buyer has entered into the Voting Agreement (as described in item 4 of this Schedule 13D) through Novo Nordisk Delivery Technologies, Inc., a Delaware Corporation (**Novo Nordisk Delivery Technologies, Inc.**) whose principal business office is located at 100 College Road, Princeton, New Jersey, 08540. Novo Nordisk Delivery Technologies Inc. was formed to enter into the Voting Agreement and the Restructuring Agreement (as described in Item 4 of this Schedule 13D) and therefore its primary business is to develop insulin delivery technologies for the United States and worldwide diabetes markets. The Voting Agreements relate to 7,251,121 Shares owned by certain holders of Shares and Preferred Shares. Novo Nordisk Delivery Technologies, Inc. is a wholly-owned subsidiary of Novo Nordisk Holdings, Inc. (**NN Holdings**). NN Holdings is a Delaware corporation whose principal place of business is Brandywine Plaza, Suite 282, 103 Foulk Road, Wilmington, DE 19803. NN Holding's primary business is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware. NN Holdings is wholly owned by Buyer.

Novo A/S, a private limited Danish company whose principal business office is located at Kroghshøjvej 41, DK-2880 Bagsværd, Denmark, owns approximately 26.7% of Buyer's total share capital, representing approximately 69% of the voting rights of Buyer and may be deemed to control Buyer. The principal business of Novo A/S is the administration of its portfolio of securities and minority capital interests. Novo A/S is a wholly-owned subsidiary of Novo Nordisk Foundation (the **Foundation**), a self-governing and self-owned foundation whose principal business office is located at Brogårdsvej 70, Post Box 71, DK-2820 Gentofte, Denmark. The principal business of the Foundation is to provide a stable basis for the business and research activities undertaken by Novo A/S and its affiliates.

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The name, address, present principal occupation or employment and citizenship of each director and executive officer of each of Buyer, NN Pharmaceuticals, NN North America, Novo Nordisk Delivery Technologies, Inc., NN Holdings, Novo A/S and the Foundation is set forth on Schedule A.

During the last five years, Buyer has not, and to the best of Buyer's knowledge, none of Novo Nordisk Delivery Technologies, Inc. NN Holdings, NN Pharmaceuticals, NN North America, Novo A/S, the Foundation or any of the persons listed on Schedule A attached hereto has, been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or has been 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.**

See Item 4 below for a description of the Voting Agreement and the Restructuring Agreement.

**Item 4. Purpose of Transaction.**

The response set forth in item 4 is hereby amended and supplemented with the following:

As described below, the Buyer has plans or proposals that relate to or would result in a sale or transfer of a material amount of assets of the Issuer.

On September 28, 2004, Issuer, Buyer and Novo Nordisk Delivery Technologies, Inc. entered into a Restructuring Agreement (the "**Restructuring Agreement**", a copy of which is attached hereto as Exhibit 2 and incorporated herein by reference). The Restructuring Agreement provides for the sale or transfer of a material amount of assets by the Issuer to the Buyer including (i) all of the Issuer's right, title and interest in, to and under certain equipment used in the development and manufacture of insulin development technologies, and certain permits and documents associated therewith, which equipment and associated assets have a current book value of approximately \$55,000,000, (ii) the assignment of Issuer's leasehold interest in two of Issuer's three buildings along with associated leasehold improvements and the temporary sublease of part of the third of Issuer's three buildings, (iii) the offer of employment by Novo Nordisk Delivery Technologies, Inc. to approximately 130 employees of the Issuer who have been dedicated to the Issuer's and Buyer's insulin pulmonary delivery development program and (iv) the licensing of certain of the Issuer's intellectual property rights relating to the development and manufacture of insulin delivery technology.

There are various conditions to effectiveness of, and closing of the transactions contemplated by, the Restructuring Agreement including (i) the approval of such transactions by the holders of Shares and Preferred Shares voting together as one class, (ii) the approval of such transactions by the holders of the Preferred Shares voting separately as a class, (iii) the approval of such transactions by a majority of the Shares and Preferred Shares, voting together as a class but without counting votes cast by Buyer and NN Pharmaceuticals, (iv) the agreement by a substantial number of Issuer's employees to transfer their employment and services to Novo Nordisk Delivery Technologies, Inc., (v) termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended and (vi) other customary closing conditions for transactions of the nature contemplated by the Restructuring Agreement.

Upon effectiveness of the Restructuring Agreement, the Issuer, the Buyer and NN Pharmaceuticals will enter into an Amended and Restated Stock Purchase Agreement (the "**Amended and Restated Stock Purchase Agreement**", a copy of which is attached hereto as Exhibit 3 and incorporated herein by reference), which will amend and restate the Stock Purchase Agreement. Pursuant to the Stock Purchase Agreement, Issuer was granted the right, subject to certain conditions, to issue and sell to Buyer certain of Issuer's Shares and to require Buyer to purchase such Shares. Such right is not granted in the Amended and Restated Stock Purchase Agreement and will therefore be extinguished. Pursuant to the Amended and Restated Stock Purchase Agreement, the Buyer and NN Pharmaceuticals agree not to sell any of the Shares of the Issuer held by it for a period of time described in Section 1.3(a) of the Amended and Restated Stock Purchase Agreement. This period of time will generally last until the earlier of (i) the first marketing of insulin delivery products currently being developed by the Issuer and Buyer, (ii) a

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tender offer for all of the Issuer's Shares which is recommended by Issuer's board of directors, (iii) termination of the amended and restated license agreement between Issuer and Buyer relating to the development of certain insulin delivery products which is to become effective upon effectiveness of the Restructuring Agreement, (iv) certain insolvency events affecting the Issuer or a material change in the Issuer's business activities incompatible with accepted ethical standards within the pharmaceutical industry and (v) January 1, 2009. However, notwithstanding the preceding sentence, the Buyer and NN Pharmaceuticals may sell or grant options to buy Shares to employees of Novo Nordisk Technologies, Inc. who are former employees of the Issuer and further transfers of Shares are allowed in certain other limited circumstances.

Finally, as in the original Stock Purchase Agreement, the Buyer has agreed under the Amended and Restated Stock Purchase Agreement that neither Buyer nor its affiliates will, at any Shareholder elections of Issuer directors, vote any Shares to elect any person who is employed by Buyer or any of its affiliates including current and past directors and officers, current employees, advisors and sales agents.

Simultaneous with the execution of the Restructuring Agreement, Novo Nordisk Delivery Technologies, Inc. and certain owners of Shares and Preferred Shares including V. Bryan Lawlis, Jr., President and Chief Executive Officer of Issuer, Thomas C. Chesterman, Senior Vice President and Chief Financial Officer of Issuer, Babatunde A. Otulana, M.D., Vice President for Clinical and Regulatory Affairs of Issuer, Richard Thompson, Chairman and a member of the board of directors of Issuer, Igor Gonda, a director of Issuer, Virgil D. Thompson, a director of Issuer and New Enterprise Associates 10, Limited Partnership (["NEA"]) (collectively, the ["Voting Agreement Shareholders"]) entered into a Voting Agreement, dated September 28, 2004 (the ["Voting Agreement"], a copy of which is attached hereto as Exhibit 3 and incorporated herein by reference). All of the Voting Agreement Shareholders own Shares apart from NEA which owns 1,033,057 Preferred Shares in addition to its 2,489,585 Shares. Pursuant to the Voting Agreement the Voting Agreement Shareholders agree to vote to approve the Restructuring Agreement and other related agreements and transactions and to grant Novo Nordisk Delivery Technologies, Inc. an irrevocable proxy to vote their 7,251,121 Shares in support of such agreements and transactions. The scope of the Voting Agreement and the proxy is limited to the matters described therein and does not require the Voting Agreement Shareholders to vote in any way on any matter except as set forth above. Pursuant to the Voting Agreement, for all Shares registered in their respective names or beneficially owned by them (whether owned as of the date of the Voting Agreement or thereafter) the Voting Agreement Shareholders agree not to sell any Shares during the term of the Voting Agreement.

The Voting Agreement terminates on the earlier of: (i) the consummation of the various transactions contemplated by the Restructuring Agreement, (ii) the date on which Restructuring Agreement is terminated pursuant to Article 11 thereof and (iii) January 31, 2005.

**Item 5. Interest in Securities of the Issuer.**

(a) For the purposes of Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended (the ["Exchange Act"]), Buyer may be deemed to beneficially own 15,119,490 Shares, or approximately 21.68% of the outstanding Shares.

(b) By virtue of the Voting Agreement (the details of which are set forth in Item 4 of this Schedule 13D), Buyer may be deemed to have the shared power to vote or direct the vote of the 3,118,893 Shares and 1,033,057 Preferred Shares (convertible into 4,132,228 Shares) held by the Voting Agreement Shareholders for the limited purposes described in Item 4 of this Schedule 13D. Each of Buyer, Novo Nordisk Delivery Technologies, Inc., NN Holdings, NN Pharmaceutical, NN North America, Novo A/S and the Foundation disclaims beneficial ownership of all such securities of the Issuer owned by the Voting Agreement Shareholders. By virtue of the relationship described in Item 2 of this Schedule 13D, Buyer may be deemed to have the sole power to vote or direct the vote and sole power to dispose or direct the disposition of and vote of the 1,020,612 Shares held by it directly and the shared power to direct the disposition of and vote of the 6,847,757 Shares held by NN Pharmaceuticals.

(c) None of Buyer, any of the persons named in Item 2 or any of the persons set forth on Schedule A, has effected any transaction in the Shares during the past 60 days.

(d) Not applicable.

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(e) Not applicable.

**Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.**

See response to Item 4.

**Item 7. Material to be Filed as Exhibits.**

Exhibit 1: Press release issued by Issuer and Buyer on September 28, 2004 relating to the Restructuring Agreement.

Exhibit 2: Restructuring Agreement dated as of September 28, 2004 between Issuer, Buyer and Novo Nordisk Delivery Technologies, Inc.

Exhibit 3: Form of Amended and Restated Stock Purchase Agreement between the Issuer, Buyer and NN Pharmaceuticals.

Exhibit 4: Voting Agreement dated as of September 28, 2004 between Buyer and the Voting Agreement Shareholders set forth on Exhibit A to such Voting Agreement.

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**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.

\_\_\_\_\_  
Date

/s/ Kåre Schultz

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Kåre Schultz

\_\_\_\_\_  
Date

/s/ Lars Almbloom Jørgensen

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Lars Almbloom Jørgensen

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APPENDIX A

DIRECTORS AND EXECUTIVE OFFICERS OF NOVO NORDISK DELIVERY TECHNOLOGIES, INC.

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The name, address, title, present principal occupation or employment of each of the directors and executive officers of Novo Nordisk Delivery Technologies, Inc. are set forth below. If no address is given, the director's or officer's address is 100 College Road, Princeton, New Jersey 08540. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
*Per Valstrop Danish	Chairman of the Board and CEO Novo Nordisk Delivery Technologies, Inc.
*Martin Soeters The Netherlands	President Novo Nordisk Pharmaceuticals
*Ole F. Ramsby Danish	Senior Vice President Legal Affairs and General Counsel Novo Nordisk A/S Novo Alle 2880 Bagsvaerd Denmark
*James Shehan USA	U.S. General Counsel Novo Nordisk Pharmaceuticals
Palle Thorsen Danish	President Novo Nordisk Delivery Technologies, Inc.
Phil Fornecker USA	Treasurer Novo Nordisk Delivery Technologies, Inc.
William Schiavi USA	Assistant Treasurer Novo Nordisk Delivery Technologies, Inc.
Joan M. Schmidt USA	Assistant Secretary Novo Nordisk Delivery Technologies, Inc.

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### DIRECTORS AND EXECUTIVE OFFICERS OF NOVO NORDISK HOLDINGS, INC.

The name, address, title, present principal occupation or employment of each of the directors and executive officers of Novo Nordisk Holdings, Inc. are set forth below. If no address is given, the director's or officer's address is Brandywine Plaza Suite 282, 103 Foulk Road, Wilmington, DE 19803. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
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*Phil Fornecker USA	President and Treasurer Novo Nordisk Holdings, Inc.
*James Shehan USA	Secretary Novo Nordisk Holdings, Inc.
*Ole F. Ramsby Danish	Senior Vice President Legal Affairs and General Counsel Novo Nordisk A/S Novo Alle 2880 Bagsvaerd Denmark
Mark Stolp USA	Assistant Treasurer Novo Nordisk Holdings, Inc.
Jerry Shilling USA	Assistant Treasurer Novo Nordisk Holdings, Inc.
Kevin Rowland USA	Assistant Treasurer Novo Nordisk Holdings, Inc.
William Schiavi U.S.A	Assistant Treasurer Novo Nordisk Holdings, Inc.
Jill M. Fallows U.S.A	Assistant Secretary Novo Nordisk Holdings, Inc.

APPENDIX B

DIRECTORS AND EXECUTIVE OFFICERS OF NOVO NORDISK A/S

The name, address, title, present principal occupation or employment of each of the directors and executive officers of Novo Nordisk A/S are set forth below. If no address is given, the director's or officer's address is Novo Alle, DK-2880 Bagsvaerd, Denmark. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
*Mads Øvlisen Danish	Chairman of the Board Novo Nordisk A/S Novo Alle, 6B2.22 2880 Bagsvaerd Denmark
*Kurt Anker Nielsen Danish	Kastanievej 6 2960 Rungsted Kyst Denmark

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\*Jan Ulf Sigvard Johansson  
Swedish

CEO/Businessman  
Strandvagen 43, 4 tr.  
114 56 Stockholm  
Sweden

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\*Jørgen Wedel  
Danish

29 Winsor Way  
Weston, Massachusetts 02493  
USA

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\*Kurt Briner  
Swiss

Director  
c/o Ebsa sa  
47, rue du 31 Decembre  
CH-1211 Geneva 6  
Switzerland

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\*Niels Jacobsen  
Danish

President & CEO  
William Demant Holding A/S  
Strandvejen 58  
2900 Hellerup  
Denmark

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\*Anne Marie Handrup Kverneland  
Danish

Laboratory Assistant  
Novo Nordisk A/S  
Lauretsvej 22, 7X  
2880 Bagsvaerd  
Denmark

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\*Johnny Henriksen  
Danish

Environmental Specialist  
Novo Nordisk A/S  
Hummeltoftevej 49  
Building SOC 1.18  
2830 Virum  
Denmark

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\*Stig Strøbaek  
Danish

Electrician  
Novo Nordisk, A/S  
Lauretsvej 22, 7X  
2880 Bagsvaerd  
Denmark

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\*Sten Scheibye  
Danish

President and CEO  
Coloplast, A/S  
Holtedam 1  
3050 Humlebaek  
Denmark

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Lars Rebien Sørensen  
Danish

CEO  
Novo Nordisk A/S

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Jesper Brandgaard  
Danish

CFO  
Novo Nordisk A/S

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Kare Schultz  
Danish

Chief Operating Officer  
Novo Nordisk A/S

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Mads Krogsgaard Thompsen Danish	Chief Science Officer Novo Nordisk A/S
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Lars Almbloom Jørgensen Danish	Chief of Staffs Novo Nordisk A/S
Lise Kingo Danish	Executive Vice President Novo Nordisk A/S

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DIRECTORS AND EXECUTIVE OFFICERS OF NN NORTH AMERICA

The name, address, title, present principal occupation or employment of each of the directors and executive officers of NN North America, are set forth below. If no address is given, the director's or officer's address is Brandywine Plaza Suite 282, 103 Foulk Road, Wilmington, DE 19803. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
*James Shehan USA	President and Secretary Novo Nordisk of North America, Inc.
*Martin Soeters The Netherlands	CEO and President Novo Nordisk Pharmaceuticals, Inc. 100 College Road West Princeton, NJ 08540-7810
*Phil Fornecker USA	CFO and Treasurer Novo Nordisk of North America, Inc.
*Ole F. Ramsby Danish	Senior Vice President Legal Affairs and General Counsel Novo Nordisk A/S Novo Alle 2880 Bagsvaerd Denmark

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Mark Stolp USA	Assistant Treasurer Novo Nordisk of North America, Inc.
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Jerry Shilling USA	Assistant Treasurer Novo Nordisk of North America, Inc.
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Kevin Rowland USA	Assistant Treasurer Novo Nordisk of North America, Inc.
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Joan M. Schmidt USA	Assistant Secretary Novo Nordisk of North America, Inc.
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DIRECTORS AND EXECUTIVE OFFICERS OF NN PHARMACEUTICALS

The name, address, title, present principal occupation or employment of each of the directors and executive officers of NN Pharmaceuticals, are set forth below. If no address is given, the director's or officer's address is 100 College Road, Princeton, New Jersey 08540. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
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*Martin Soeters The Netherlands	President Novo Nordisk Pharmaceuticals, Inc.
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*Kare Schultz Danish	Chief Operating Officer Novo Nordisk A/S Novo Alle 2880 Bagsvaerd Denmark
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*Barry Reit USA	Vice President Regulatory Affairs Novo Nordisk Pharmaceuticals, Inc.
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*Phil Fornecker USA	Vice President, Finance Novo Nordisk Pharmaceuticals, Inc.
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*Jim C. Shehan USA	U.S. General Counsel Novo Nordisk Pharmaceuticals, Inc.
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DIRECTORS AND EXECUTIVE OFFICERS OF NOVO A/S

The name, address, title, present principal occupation or employment of each of the directors and executive officers of Novo A/S, are set forth below. If no address is given, the director's or officer's address is Krogshøjvej 41, DK-2880 Bagsvaerd, Denmark. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
*Palle Marcus Danish	Chairman of the Board of Directors Novo A/S
*Jørgen Boe Danish	Lawyer Margrethevej 6 2960 Rungsted Kyst Denmark
*Jan Ulf Sigvard Johansson Swedish	CEO/Businessman Strandvagen 43, 4 tr. 114 56 Stockholm Sweden
*Hans Kristian Werdelin Danish	Member, Board of Directors Novo A/S
Kurt Anker Nielsen Danish	Member, Board of Directors Novo A/S
Henrik Gurtler Danish	Co-CEO Novo A/S

DIRECTORS AND EXECUTIVE OFFICERS OF FOUNDATION

The name, address, title, present principal occupation or employment of each of the directors and executive officers of the Foundation, are set forth below. If no address is given, the director's or officer's address is Brogårdsvej 70, Post Box 71, DK-2820 Gentofte, Denmark. The directors are designated with asterisks (\*).

Name and Citizenship	Principal Occupation and Address
*Palle Marcus Danish	Chairman of the Board of Directors Novo Nordisk Foundation

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\*Jørgen Boe  
Danish

Lawyer  
Margrethevej 6  
2960 Rungsted Kyst  
Denmark

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\*Mads Øvlisen  
Danish

Member, Board of Directors  
Novo Nordisk Foundation  
Novo Nordisk A/S  
Novo Alle, 6B2.22  
2880 Bagsvaerd  
Denmark

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\*Niels Borregaard  
Danish

Doctor  
Enevangen 83  
3450 Allerød  
Denmark

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\*Jan Eric Lindsten  
Swedish

Doctor  
Norr Malarstrand 78, 3 tr.  
S-112 35 Stockholm  
Sweden

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\*Hans Ejvind Hansen  
Danish

Member, Board of Directors  
Hegelsvej 12  
2920 Charlottenlund  
Denmark

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\*Ulla Morin  
Danish

Technician  
Novo Nordisk Foundation

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\*Soren Thuesen Pedersen  
Danish

Chemist  
Novo Nordisk Foundation

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\*Stig Stroback  
Danish

Electrician  
Novo Nordisk Foundation

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Gert Almind Frederiksen  
Danish

CEO  
Novo Nordisk Foundation

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