PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CHANGE OF NAME

CONVEYING PARTY DATA

Name	Execution Date
Merck & Co., Inc.	06/01/2012

RECEIVING PARTY DATA

Name:	Merck Sharp & Dohme Corp.	
Street Address:	126 East Lincoln Avenue	
City:	Rahway	
State/Country:	NEW JERSEY	
Postal Code:	07065	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13124877

CORRESPONDENCE DATA

Fax Number: 7325944720

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 732-594-3904
Email: us_efs@merck.com

Correspondent Name: J. Eric Thies

Address Line 1: 126 East Lincoln Avenue
Address Line 4: Rahway, NEW JERSEY 07065

ATTORNEY DOCKET NUMBER:	MRLNOP22474USPCT

NAME OF SUBMITTER: Jill M. Filippone

Total Attachments: 10

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> PATENT REEL: 029486 FRAME: 0324

CT CORPORATION

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AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF

MERCK SHARP & DOHME CORP.

(EIN Number: 22-1261880)

Merck Sharp & Dohme Corp. (the "Corporation"), a corporation organized and existing under the laws of the State of New Jersey, does hereby certify that:

- 1. The original Certificate of Incorporation was filed with the Secretary of State of the State of New Jersey on December 19, 1935 and the name under which it was originally incorporated is Schering Corporation.
- 2. This Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 14A:9-1 and 14A:9-5 of the New Jersey Business Corporation Act (the "NJBCA"), and has been duly approved by the written consent of the Board of Directors of the Corporation in accordance with Section 14A:9-2 of the NJBCA, and restates, integrates and further amends the provisions of the Corporation's Restated Certificate of Incorporation.
- . 3. The text of the original Certificate of Incorporation and any amendment and restatement thereto is hereby amended and restated to read in its entirety as follows:

FIRST: The name of the corporation is: MERCK SHARP & DOHME CORP.

SECOND: The purpose or purposes for which the corporation is organized includes any activity within the purposes for which corporations may be organized under the NJECA, including, but not limited to:

> (a) To buy, sell, import, export, deal in, at wholesale and/or retail, as principals. agents, factors, or otherwise, and/or to manufacture, develop, produce and prepare any and all kinds of chemicals, drugs, alkalis, salts, compounds, medicinal, and proprietary preparations, supplies and articles, and also all

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- materials, ingredients, substances, articles, apparatus and appliances used in or pertinent to the manufacture, production and preparation thereof;
- (b) To carry on and undertake any other similar business which may from time to time seem to the directors of this corporation capable of being conveniently carried on in connection with the above purposes or calculated directly or indirectly to render valuable or enhance the value of any of the corporation's privileges or rights;
- (c) The corporation is expressly authorized to conduct its business in all its branches at one or more offices, to carry on any one or more of the purposes herein set forth, in the State of New Jersey and in any other states and territories and dependencies of the Unite States and in foreign countries.
 - In furtherance and not in limitation of the general powers conferred by the laws of the State of New Jersey and of the objects and purposes hereinbefore stated, it is hereby expressly provided that the corporation shall have also the following powers and purposes:
- (d) To purchase, lease, exchange or otherwise acquire; to hold, own, use, operate, lease; to sell, transfer, assign, convey, mortgage, pledge or otherwise dispose of or encumber such real and personal property of every description and wherever situated as may be necessary or convenient for the business of this corporation without limit as to amount;
- (e) To borrow money, make, issue and sell, pledge or otherwise dispose of bonds, debentures and other evidences of indebtedness of all kinds, whether secured by mortgage or otherwise and without limit as to amount and also to secure the same by mortgage, pledge or otherwise;
- (f) To purchase, subscribe to, acquire, hold and dispose of stocks, bonds and other evidences of indebtedness of any corporation, domestic or foreign, or of any individual, firm or association, or of any domestic or foreign state, government, municipality, or governmental authority, and to issue in exchange therefore the stocks, bonds or other obligations of this corporation and while the owner thereof, to exercise all rights, powers and privileges of ownership, including any and all voting power thereon;
- (g) To acquire and take over as a going concern and to carry on the business of any person, firm, association or corporation engaged in any business which this corporation is authorized to carry on and in connection therewith, to acquire the goodwill and all or any part of the property and assets of all kinds and to assume or otherwise provide for all or any part of the liabilities of the owner or owners of such business and to pay for the same in cash or with the stocks, bonds, debentures or other securities or obligations of this corporation or otherwise;
- (h) To enter into, make, purchase, acquire by assignment or otherwise and to carry out and perform contracts of every sort and kind which may be necessary or convenient for the business of this corporation with any person, firm, corporation, private, public or municipal body politic under the

Government of the United States or of any state, territory or colony thereof, or of any foreign government;

- (i) To lend money to any corporation, partnership, association or person upon the security of its, their or his undertaking, property, estate, assets and effects, or any part thereof, upon such terms as the Board of Directors may deem expedient; to guarantee the payment of principal or dividends or interest of or on any shares, stocks, or debentures, and to guarantee or assume any bonds or notes or other securities or any other contract or obligation issued or executed or incurred by any corporation, firm or individual whenever desirable in the judgment of the Board of Directors and to use its name and credit for the benefit of other corporations, firms or individuals as may to the Board of Directors seem advisable, but nothing herein shall be construed to authorize loans forbidden by Section 48 of the General Corporations Act of New Jersey;
- (j) To cause or allow the legal title, estate and interest in any property, acquired, established or carried on by the corporation, to remain or be vested, or registered in the name of, or carried on by, any person, firm or corporation, foreign or domestic, formed or to be formed, and either upon trust for, or as agents or nominees of this corporation, or upon any other terms or conditions which the Board of Directors may consider for the benefit of this corporation, and to manage the affairs or take over and carry on the business of such person, firm or corporation, foreign or domestic, formed, or to be formed, either by acquiring the shares, stocks, or other securities thereof, or otherwise howsoever, and to exercise all or any of the powers of holders of shares, stocks or securities thereof, and to receive and distribute as profits the dividends and interests on such shares, stocks or securities;
- (k) To build, construct, erect, purchase, hire or otherwise acquire or provide and to maintain, operate and alter any buildings, factories, workshops, laboratories, offices, machinery and equipment, or other things necessary or useful for carrying out the objects of the corporation;
- (l) To act as agents for others in any business or for any purpose and upon any terms, and whether with our without remuneration;
- (m) To enter into any arrangement for sharing profits, union of interest, reciprocal concession, or cooperation with any person or corporation carrying on or about to carry on any business which this corporation is authorized to carry on, or any business or transaction capable of being conducted so as to benefit the corporation, directly or indirectly, and to take or otherwise acquire and hold shares of stock in, or securities of, any corporation, and to subsidize or otherwise assist any such person or corporation, and to sell, hold, reissue with or without guarantee, or otherwise deal with such shares or securities;
- (n) To invest and deal with the moneys of the corporation not immediately required in its business in such securities and in such manner as may from time to time be determined, and as may be permitted by law to a corporation;
- (o) To apply for, purchase or otherwise acquire any patents, brevets, d'invention, licenses, concessions and the like conferring any exclusive or non-exclusive

or limited right to use any invention which may seem capable of being used for any of the purposes of the corporation, or the acquisition of which may seem calculated directly or indirectly to benefit this corporation, and to use, exercise, develop or grant licenses in respect of, or otherwise turn to account the property and rights so acquired;

(p) The corporation shall have power to do any and all things set forth as the objects for which it is formed. To the same extent and as fully as a natural person might or could do, in any part of the world, as principal, agent, director or otherwise, and to carry out all or any of the foregoing objects as principals, agents, contractors or otherwise, and by and through trustees, agents, subcontractors or otherwise, and alone or jointly with other corporation, association, firm or person, and in any part of the world.

Nothing in this certificate is to be construed as intended to form a banking corporation, a trust company, a savings bank or a surety or insurance company, or to give to this corporation any of the powers lawfully possessed by such corporations exclusively.

THIRD: The aggregate number of shares which the corporation shall have authority to issue is 1,000,000 common shares of the par value of one Dollar (\$1) each, amounting in the aggregate to one million Dollars (\$1,000,000).

FOURTH: The address of the Corporation's principal office is at One Merck Drive, Whitehouse Station, New Jersey 08889. The address of the Corporation's registered office in the State of New Jersey is 820 Bear Tavern Road, West Trenton, New Jersey, 08628 and the name of the Corporation's registered agent at such address is The Corporation Trust Company.

FIFTH: The number of directors constituting the board is three, and the name and address of the persons who are to serve as such directors are: John Canan, One Merck Drive, Whitehouse Station, New Jersey, 08889; Celia A. Colbert, One Merck Drive, Whitehouse Station, New Jersey, 08889; and Mark E. McDonough, One Merck Drive, Whitehouse Station, New Jersey, 08889.

To the fullest extent permitted by the laws of the State of New Jersey, as SIXTH: they exist or may hereafter be amended, all current and former directors and officers of the Corporation shall not be personally liable to the Corporation or its stockholders for damages for

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breach of any duty owed to the Corporation or its stockholders, except that the provisions of this paragraph shall not relieve a director or officer from liability for any breach of duty based upon an act or omission (a) in breach of such person's duty of loyalty to the Corporation or its stockholders, (b) not in good faith or involving a knowing violation of law or (c) resulting in receipt by such person of an improper personal benefit.

SEVENTH: The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by statute and all rights conferred on the stockholders hereunder are granted subject to this reservation.

This Amended and Restated Certificate of Incorporation shall be effective May 2, 2012.

IN WITNESS WHEREOF, the undersigned has executed this Amended and Restated Certificate of Incorporation this 16th day of May, 2012.

Mark E. McDonough

Vice President and Treasurer

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MERCK SHARP & DOHME CORP.

CERTIFICATE OF ADOPTION OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION (EIN Number: 22-1261880)

Merck Sharp & Dohme Corp., a corporation organized and existing under the laws of the State of New Jersey and wholly owned subsidiary of Merck & Co., Inc., a corporation organized and existing under the laws of the State of New Jersey, (the "Corporation"), to amend and restate the Certificate of Incorporation pursuant to Section 14A:9-5 of the New Jersey Business Corporation Act, hereby certifies as follows:

FIRST: The name of the Corporation is Merck Sharp & Dohme Corp.

SECOND: The Amended and Restated Certificate of Incorporation attached hereto was duly approved by the Board of Directors of the Corporation by a unanimous written consent dated as of April 26, 2012 and was duly adopted by the sole shareholder of the Corporation by a written consent dated as of April 26, 2012.

THIRD: The number of shares entitled to vote on the adoption of the Amended and Restated Certificate of Incorporation was 100,000 shares of common stock, all of which voted for the Amended and Restated Certificate of Incorporation pursuant to the written consent of the sole shareholder.

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IN WITNESS WHEREOF, Merck Sharp & Dohme Corp. has caused its duly authorized officer to execute this Certificate of Adoption as of May 30, 2012.

MERCK SHARP & DOHME CORP.

Mark E. McDonough

Vice President and Treasurer

609-538-1130

REG-C-EA (08-05)

STATE OF NEW JERSEY DIVISION OF REVENUE

Mail to: PO Box 308
Treaton, NJ 08646

•	BUSINESS ENTITY AMENDMENT FILING	FEE REQUIRED			
Refi	uplete the following information and sign in the space provided. Please note that once filed, the information on this pase to the instructions for delivery/return options, filing sees and field-by-field requirements. Remember to remit the apg. Use attachments if more space is required for any field, or if you wish to add articles for the public record.	ce is considered public, repriatorice and unit or this			
A.	Business Name: Schering Corporation	MAY - 2 2012			
	Business Entity NJ 10-digit ID number: 7 9 5 4 4 0 1 0 0	-STATE TREASURE			
B.	Statutory Authority for Amendment: 14A: 9-1 (See Instructions for	List of Statutory Authorities)			
C.	ARTICLE One OF THE CERTIFICATE of the above referenced business is amended to read as fo necessary, use attachment)	Power (If more space is 95440100			
D.	Other Provisions: (Optional) The name of the corporation is: MERCK SHARP & DOHME CORP.				
E.	Date Arnendment was Adopted: April 26, 2012				
	CERTIFICATION OF CONSENT/VOTING: (If required by one of the following laws cited, certify consent/voting N.J.S.A. 14A:9-1 et seq. or N.J.S.A. 15A:9-1 et seq., Profit and Non-Profit Corps. Amendment by the Incorporators Amendment was adopted by unanimous consent of the Incorporators.)			
	N.J.S.A 14A:9-2(4) and (4A:9-4(3), Profit Corps., Amendment by the Shareholders. Amendment was adopted by the Directors and thereafter adopted by the shareholders. Number of shares outstanding at the time the amendment was adopted 100,000 and total number thorson 100,000. If applicable, list the designation and number of each class/series of shares entitled to	y y y w.			
	List votes for and against amendment, and if applicable, show the vote by designation and number of each class vote:				
	Number of Shares Voting for Amendment Number of Shares Voting Against A	mendment			
	100,000	- designed the smanner in			
	** If the amendment provides for the exchange, reclassification, or cancellation of issued shares, attach a statement which same shall be effected.	indexing the marrier of			
	N.J.S.A. 15A:9-4, Non-profit Corps., Amendment by Members or Trustees The corporation has does not have members. If the corporation has members, indicate the number entitled to vote, and how voting was accomplished:				
	At a meeting of the corporation, indicate the number VOTING FOR and VOTING AGAINST may vote as a class, set forth the number of members in each class, the votes for and against by class, and the number of Mambers Class	If any class(es) of members umber present at the meeting: ting Against Amendment			
	Adoption was by unanimous written consent without a meeting.	ation was a second taked.			
	If the corporation does not have members, indicate the total number of Trustees and how voting was accomplished: At a meeting of the corporation. The number of Trustees VOTING FOR and VOTING AGAINST				
	At a meeting of the corporation. The number of Trustees Voltage Adoption was by manimous written consent without a meeting.				
G	AGENT/OFFICE CHANGE				
	New Registered Agent: Registered Office: (Must be a NJ street address) Street City	Zip			
H.	SIGNATURE(S) FOR THE PUBLIC RECORD (See Austructions for Information on Signature Requirements)				
Sis	Title Vice President and Treasurer	Date 5/2/12			
•	Title	Date			

The above-signed certifies that the business entity has complied with all applicable NJ statutory filing requirements - 30 -

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MERCK & CO., INC.

CERTIFICATION

I, Katie E. Fedosz, Senior Assistant Secretary of Merck & Co., Inc. (the

"Company"), a corporation duly organized and existing under the laws of the State of

New Jersey, United States of America, do hereby certify that the attached, presently in

full force and effect, is a true and correct copy of General Corporate Resolution #5,

Patent Matters, as amended and readopted effective on May 22, 2012 by the Board of

Directors of said Company at a meeting thereof duly called and held on May 22, 2012 at

which a quorum of Directors was present.

IN WITNESS WHEREOF, I have hereunto subscribed my signature and

affixed the seal of the Company this 8th day of June, 2012.

Senior Assistant Secretary

(SEAL)

United States of America)

State of New Jersey) SS

County of Hunterdon

Subscribed and sworn to before me on this 8th day of June, 2012.

Notary Public

SANDRA MARIE McFADDEN

NOTARY PUBLIC, STATE OF NEW JERSEY
MY COMMISSION EXPIRES JANUARY 18, 2015

PATENT

General Corporate Resolution #5

PATENT MATTERS

RESOLVED, that any of the following:

Kenneth C. Frazier-Chairman, President and Chief Executive Officer Bruce N. Kuhlik-Executive Vice President and General Counsel Paul D. Matukaitis-Vice President and Assistant General Counsel Mark R. Daniel-Vice President and Group Managing Counsel William Krovatin-Vice President and Group Managing Counsel Valerie J. Camara-Managing Counsel, Patents Gerard M. Devlin- Managing Counsel, Patents Catherine D. Fitch-Managing Counsel, Patents Sheldon O. Heber-Managing Counsel, Patents Hans Mestrom-Managing Counsel, Animal Health Edward W. Murray-Managing Counsel, IP Litigation David A. Muthard-Managing Counsel, Patents Anthony Rollins-Managing Counsel, European and Japanese Patents Immac Thampoe-Managing Counsel, Biologics John C. Todaro-Managing Counsel, Patents Charles M. Caruso-Counsel Peter Haeberli-Counsel, Sirna Therapeutics, Inc. Cynthia A. Francisco-Director, Asset Management

are authorized to execute and to revoke on behalf of Merck & Co., Inc. and its affiliates (including subsidiaries) the following documents relating to patent matters:

Powers of attorney as fully in law as may be necessary and proper in connection with the acquisition, registration, maintenance and enforcement of patents and applications for patents, including powers of attorney relating to the prosecution or defense of patent rights before courts of law or other governmental tribunals, agencies or departments; affidavits and declarations; and any other documents which are necessary and proper for the acquisition, registration, maintenance, litigation and protection of patents.

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RECORDED: 12/18/2012



PATENT REEL: 029486 FRAME: 0334