

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4616346

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	NUNC PRO TUNC ASSIGNMENT
EFFECTIVE DATE:	02/01/2016
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
THE MEDICINES COMPANY	02/01/2016

RECEIVING PARTY DATA

Name:	MALLINCKRODT PHARMACEUTICALS IRELAND LIMITED
Street Address:	COLLEGE BUSINESS & TECHNOLOGY PARK
Internal Address:	CRUISERATH
City:	BLANCHARDSTOWN
State/Country:	IRELAND

PROPERTY NUMBERS Total: 7

Property Type	Number
Patent Number:	7393674
Patent Number:	7473543
Patent Number:	8062876
Patent Number:	8071090
Patent Number:	8759066
Patent Number:	9629798
Patent Number:	9597062

CORRESPONDENCE DATA

Fax Number: (847)808-5500

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 8478085500

Email: mail@iphorgan.net

Correspondent Name: CARLYNN DAVIS

Address Line 1: 195 ARLINGTON HEIGHTS RD.

Address Line 2: SUITE #125

Address Line 4: BUFFALO GROVE, ILLINOIS 60089

ATTORNEY DOCKET NUMBER:	MAL 2270 US
NAME OF SUBMITTER:	CARLYNN DAVIS

PATENT

SIGNATURE:	/Carlynn Davis/
DATE SIGNED:	09/28/2017
Total Attachments: 13 source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page1.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page2.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page3.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page4.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page5.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page6.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page7.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page8.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page9.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page10.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page11.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page12.tif source=Medco to Mallinckrodt Pharmaceuticals Ireland Limited Patent Assignment (Execution)#page13.tif	

PATENT ASSIGNMENT

This Patent Assignment Agreement (this “Assignment”), including all schedules attached hereto, is made effective this 1st day of February, 2016 (the “Effective Date”), by and among The Medicines Company, a Delaware corporation (“Assignor”) and Mallinckrodt Pharmaceuticals Ireland Limited, an Irish company (“Assignee”). Assignor and Assignee may be referred to in this Assignment each as a “Party” and collectively as the “Parties.”

WHEREAS, Assignor and Assignee have entered into a Purchase and Sale Agreement (the “Purchase Agreement”), effective as of the Effective Date; and

WHEREAS, under the terms of the Purchase Agreement, the Parties agreed that Assignor would transfer, or cause to be transferred, to Assignee the patents, patent registrations and patent applications identified on Schedule 1 hereto (the “Assigned Patents”).

NOW, THEREFORE, in consideration of the execution of the Purchase Agreement, the payment of the consideration stipulated in the Purchase Agreement, the mutual promises and covenants hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound thereby, the Parties agree as follows:

1. All capitalized terms not otherwise defined herein, as used in this Assignment, shall have the respective meanings ascribed to such terms in the Purchase Agreement.
2. Assignor hereby assigns to Assignee all of Assignor’s right, title and interest in, to and under the Assigned Patents, including (i) all rights in applications anywhere in the world claiming priority thereto, (ii) all rights to claim priority thereto, (iii) all reissues, continuations, continuations-in-part, divisionals, reexaminations and foreign equivalents thereof, (iv) all letters patent that may be granted on any of the patent applications included therein, (v) all income and payments now or hereafter due or payable with respect thereto, (vi) all causes of action in law or equity relating thereto, and (vii) all rights to sue, counterclaim and recover for past, present and future infringement of the rights assigned, the same to be held and enjoyed by Assignee, its successors and assigns as fully and entirely as the same would have been held and enjoyed by Assignor had no sale and assignment of said Assigned Patents been made.
3. Assignor further agrees to execute such further documents reasonably required by Assignee to secure and enforce the rights granted to Assignee under this Assignment.
4. Assignee may record this Assignment with the United States Patent and Trademark Office (“USPTO”) and with comparable offices in other jurisdictions throughout the world. All costs associated with any such registrations or recordings shall be paid by Assignee. Assignor hereby authorizes and requests the Commissioner for Patents of the USPTO, and any Official of any country or countries foreign to the United States whose duty is to record documents evidencing ownership of patents and patent applications to record Assignee as owner

of the Patents, including any reissues, continuations, continuations-in-part, divisionals, or reexaminations thereof and foreign equivalents thereto.

5. Assignor hereby authorizes and requests the Commissioner for Patents of the USPTO, and any Official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue all letters patent related to the Assigned Patents to the Assignee, its successors, legal representatives, and assigns, in accordance with the terms of this Assignment.

6. This Assignment shall inure to the benefit of and be binding upon the Parties and their respective successors and permitted assigns.

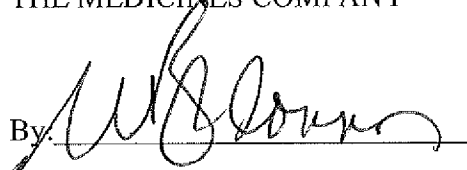
7. This Assignment shall be governed by and construed in accordance with the internal laws of the State of New York without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction) that would cause the application of laws of any jurisdiction other than those of the State of New York.

8. This Agreement may be executed in two or more counterparts (including by facsimile or by an electronic scan delivered by electronic mail), each of which shall be deemed an original but all of which together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each Party hereto and delivered to the other Party, it being understood that each Party need not sign the same counterpart. This Agreement may be executed and delivered by facsimile or by an electronic scan delivered by electronic mail.

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IN WITNESS WHEREOF, the Parties have caused this Assignment to be executed by their duly authorized officers as of the Effective Date indicated above.

THE MEDICINES COMPANY

By: 

Print Name: William O'Connor

Print Title: Chief Financial Officer

ACCEPTED:

MALLINCKRODT PHARMACEUTICALS IRELAND LIMITED

By: _____

Print Name:

Print Title:

[Signature Page to Patent Assignment]

PATENT
REEL: 043723 FRAME: 0192

IN WITNESS WHEREOF, the Parties have caused this Assignment to be executed by their duly authorized officers as of the Effective Date indicated above.

THE MEDICINES COMPANY

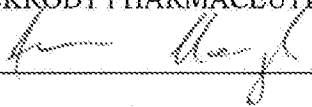
By: _____

Print Name:

Print Title:

ACCEPTED:

MALLINCKRODT PHARMACEUTICALS IRELAND LIMITED

By:  _____

Print Name: Aaron Keogh

Print Title: Director

[Signature Page to Patent Assignment]

Schedule 1

Assigned Patents

[See attached]

Country name	Application number	Status	Publication number	Grant number	Grant date	Title	Owner
Austria	5766031.8	Issued	E405643	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Australia	2009238369	Issued		2009238369	6-Sep-12	THROMBIN COMPOSITIONS	The Medicines Company
Australia	2005265251	Issued		2005265251	24-Dec-09	THROMBIN COMPOSITIONS	The Medicines Company
Belgium	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Canada	2570478	Issued		2570478	23-Aug-11	THROMBIN COMPOSITIONS	The Medicines Company
Switzerland	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Germany	5766031.8	Issued	1766003	602005009191.20	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Germany	8004770.7	Issued	1927658	602005036525.70	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company
Denmark	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Europe	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Europe	8004770.7	Issued	1927658	1927658	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company
Spain	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Spain	8004770.7	Issued	1927658	1927658	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company

France	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
France	8004770.7	Issued	1927658	1927658	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company
Great Britain	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Great Britain	8004770.7	Issued	1927658	1927658	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company
Ireland	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Israel	179852	Issued		179852	1-Feb-11	THROMBIN COMPOSITIONS	The Medicines Company
India	1863/CHENP/2011	Pending	1863/CHENP/2011A			THROMBIN COMPOSITIONS	The Medicines Company
India	256/CHENP/2007	Issued	247493	247493	12-Apr-11	THROMBIN COMPOSITIONS	The Medicines Company
Italy	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Italy	8004770.7	Issued	1927658	1927658	10-Oct-12	THROMBIN COMPOSITIONS	The Medicines Company
Japan	2007-518171	Issued		4767253	24-Jun-11	THROMBIN COMPOSITIONS	The Medicines Company
Luxembourg	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
Netherlands	5766031.8	Issued	1766003	1766003	20-Aug-08	THROMBIN COMPOSITIONS	The Medicines Company
U.S.A.	11/539276	Issued	2.007E+10	7473543	6-Jan-09	THROMBIN COMPOSITIONS	The Medicines Company

U.S.A.	11/157707	Issued	2.006E+10	7393674	1-Jul-08	THROMBIN COMPOSITIONS	The Medicines Company
Austria	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Australia	2006330923	Issued		2006330923	29-Mar-12	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Belgium	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Bulgaria	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Canada	2631715	Issued		2631715	16-Jul-13	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Switzerland	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Cyprus	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Czech Republic	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Germany	6846013.8	Issued	1966371	6.02006E+11	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Denmark	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company

Estonia	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Europe	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Spain	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Finland	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
France	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Great Britain	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Greece	6846013.8	Issued	1966371	3076587	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Hungary	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Ireland	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Israel	191818	Issued	191818	191818	31-Dec-13	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
India	3822/CHENP/2008	Pending	3822/CHENP/2008			METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company

Iceland	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Italy	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Japan	2008-547622	Issued		5167146	28- Dec-12	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Lithuania	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Luxembourg	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Latvia	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Monaco	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Netherlands	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Poland	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Portugal	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Romania	6846013.8	Issued	1966371	1966371	24- Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company

Sweden	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Slovenia	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Slovakia	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Turkey	6846013.8	Issued	1966371	1966371	24-Aug-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
U.S.A.	12/097027	Issued	20080293122A1	8062876	22-Nov-11	METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
U.S.A.	60/870746					METHOD FOR ACTIVATING PRETHROMBIN-1	The Medicines Company
Australia	2008266094	Issued		2008266094	15-May-14	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Canada	2687968	Pending				STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Germany	8780809.3	Issued	2167041	6.02008E+11	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Europe	8780809.3	Issued	2167041	2167041	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Spain	8780809.3	Issued	2167041	2167041	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
France	8780809.3	Issued	2167041	2167041	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company

Great Britain	8780809.3	Issued	2167041	2167041	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Israel	202306	Issued		202306	23-Mar-14	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
India	245/CHENP/2010	Pending	245/CHENP/2010			STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Italy	8780809.3	Issued	2167041	2167041	7-Nov-12	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
Japan	2010-512373	Issued		5253501	26-Apr-13	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
U.S.A.	12/138922	Issued	20080311104A1	8071090	6-Dec-11	STABILIZED THROMBIN COMPOSITIONS	The Medicines Company
U.S.A.	12/935235	Issued	20110151536A1	8759066	24-Jun-14	THROMBIN ACTIVATOR COMPOSITIONS AND METHODS OF MAKING AND USING THE SAME	The Medicines Company
Australia	2009232000	Issued	2.0092E+10	2009232000	26-Mar-15	HEMOSTATIC MICROSPHERES	The Medicines Company
Canada	2716010	Pending				HEMOSTATIC MICROSPHERES	The Medicines Company
Europe	9728223	Pending	2265728			HEMOSTATIC MICROSPHERES	The Medicines Company
Israel	207709	Issued		207709	31-Jul-15	HEMOSTATIC MICROSPHERES	The Medicines Company
India	6232/CHENP/2010	Pending	6232/CHENP/2010A			HEMOSTATIC MICROSPHERES	The Medicines Company
Japan	2011-503043	Issued	2011-518780	5562324	20-Jun-14	HEMOSTATIC MICROSPHERES	The Medicines Company
U.S.A.	12/935114	Pending	US20110125089A1			HEMOSTATIC MICROSPHERES	The Medicines Company

Australia	2009240441	Pending		2009240441	4-Dec-14	MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE	The Medicines Company
Canada	2721462	Pending				MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE	The Medicines Company
Europe	9734534.2	Pending	2271267			MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE	The Medicines Company
U.S.A.	12/988353	Pending	US20110166550A1			MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE	The Medicines Company
U.S.A	07/998972	Expired		5476777	19-Dec-95	METHODS FOR PRODUCING THROMBIN	The Medicines Company

PATENT

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RECORDED: 09/28/2017