

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4895410

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | RELEASE OF SECURITY INTEREST |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| DEUTSCHE BANK AG NEW YORK BRANCH | 03/16/2018 |
| RECEIVING PARTY DATA | |
| Name: | MALLINCKRODT PHARMA IP TRADING DESIGNATED ACTIVITY COMPANY |
| Street Address: | COLLEGE BUSINESS & TECHNOLOGY PARK |
| Internal Address: | CRUISERATH, BLANCHARDSTOWN |
| City: | DUBLIN |
| State/Country: | IRELAND |
| Postal Code: | 15 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 14804669 |
| CORRESPONDENCE DATA | |
| Fax Number: | (312)827-8185 |
| <i>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.</i> | |
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| Address Line 4: | CHICAGO, ILLINOIS 60690-1135 |
| ATTORNEY DOCKET NUMBER: | 3712044.05215 |
| NAME OF SUBMITTER: | KELLY A. PLUMMER |
| SIGNATURE: | /Kelly A. Plummer/ |
| DATE SIGNED: | 04/02/2018 |
| Total Attachments: 5 | |
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RELEASE OF SECURITY INTEREST IN PATENT COLLATERAL

This RELEASE, dated as of March 16, 2018, is made by Deutsche Bank AG New York Branch, as Collateral Agent (the "Agent"), in favor of Mallinckrodt Pharma IP Trading DAC (the "Grantor") as follows:

WITNESSETH

WHEREAS, pursuant to (a) the U.S. Collateral Agreement, dated as of March 19, 2014, by and among Mallinckrodt International Finance S.A., MALLINCKRODT CB LLC, Mallinckrodt Finance GmbH, each other Subsidiary Loan Party (as defined therein) from time to time party thereto and Agent (as such agreement may be amended, restated, supplemented or otherwise modified from time to time, the "Collateral Agreement"), and (b) the Notice of Grant of Security Interest in Patents, dated as of August 17, 2017, by and among the Grantor, certain other Pledgors (as defined therein) and Agent (the "Patent Security Agreement"), the Grantor granted the Agent, for the benefit of the "Secured Parties" (as defined in the Collateral Agreement), a continuing security interest in all of its right, title and interest in, to and under the "IP Collateral" (as defined in the Patent Security Agreement);

WHEREAS, the Patent Security Agreement was recorded with the U.S. Patent and Trademark Office on August 18, 2017 at Reel/Frame No. 043596/0259; and

WHEREAS, in accordance with the Collateral Agreement, the Grantor has requested that the Agent release its Liens on and security interest in all right, title and interest in, to and under the Patents currently owned by the Grantor being referred to herein and set forth on Schedule A attached hereto (the "Released IP Collateral").

NOW, THEREFORE, the Agent, without recourse to it or representation or warranty by it, and at the Grantor's sole cost and expense, hereby, on behalf of itself and the Secured Parties, terminates, cancels and releases its and the Secured Parties' Liens on and security interest in the Released IP Collateral, and any and all right, title and interest of the Agent and the Secured Parties in the Released IP Collateral shall hereby terminate, cease and become void.

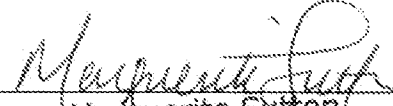
The Agent agrees to provide the Grantor with any information and additional authorization and documentation necessary to effect the release of the Agent's security interest in the Released IP Collateral (without recourse to it or representation or warranty by it, and at the Grantor's sole cost and expense and otherwise in accordance with Section 9.18 of the Credit Agreement and Section 5.15 of the Collateral Agreement).

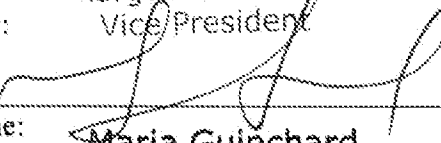
Capitalized terms used herein without definition are used as defined in the Collateral Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the Agent has caused this Release to be duly executed and delivered, on behalf of itself and the Secured Parties, by its duly authorized officer as of the date first written above.

DEUTSCHE BANK AG NEW YORK
BRANCH, as Collateral Agent

By: 
Name: Marguerite Sutton
Title: Vice President

By: 
Name: Maria Guinchard
Title: Vice President

SCHEDULE A

PATENTS AND PATENT APPLICATIONS

| No. | Invention Title | App. No. | App. Date. | Reg. No. | Reg. Date | Owner |
|------------|---|-----------------|-------------------|-----------------|------------------|--|
| 1. | THROMBIN COMPOSITIONS | 11/157707 | 6/21/2005 | 7393674 | 7/1/2008 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 2. | THROMBIN COMPOSITIONS | 11/539276 | 10/6/2006 | 7473543 | 1/6/2009 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 3. | METHOD FOR ACTIVATING PRETHROMBIN-1 | 12/097027 | 6/11/2008 | 8062876 | 11/22/2011 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 4. | STABILIZED THROMBIN COMPOSITIONS | 12/138922 | 6/13/2008 | 8071090 | 12/6/2011 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 5. | THROMBIN ACTIVATOR COMPOSITIONS AND METHODS OF MAKING AND USING THE SAME | 12/935235 | 2/7/2011 | 8759066 | 6/24/2014 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 6. | HEMOSTATIC MICROSPHERES | 12/935114 | 2/7/2011 | 9629798 | 4/25/2017 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 7. | MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE | 12/988353 | 12/30/2010 | 9597062 | 3/21/2017 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 8. | MEDICAL DEVICES FOR DELIVERING FLUIDS DURING SURGERY AND METHODS FOR THEIR USE | 15/422114 | 2/1/2017 | | | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 9. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 12/326835 | 12/2/2008 | 8198363 | 6/12/2012 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 10. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS | 12/757432 | 4/9/2010 | 9155815 | 10/13/2015 | Mallinckrodt Pharma IP Trading Designated Activity |

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| | COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | | | | | Company |
| 11. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 11/877396 | 10/23/2007 | 7871639 | 1/18/2011 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 12. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 13/471746 | 5/15/2012 | 8586671 | 11/19/2013 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 13. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 14/055712 | 10/16/2013 | | | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 14. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 14/178086 | 2/11/2014 | 9789221 | 10/17/2017 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 15. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 14/178093 | 2/11/2014 | 9440000 | 9/13/2016 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 16. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 15/233297 | 8/10/2016 | | | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 17. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 10/635847 | 8/5/2003 | 7303757 | 12/4/2007 | Mallinckrodt Pharma IP Trading Designated Activity Company |

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| 18. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 12/510890 | 7/28/2009 | 8349348 | 1/8/2013 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 19. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 12/643890 | 12/21/2009 | 9101536 | 8/11/2015 | Mallinckrodt Pharma IP Trading Designated Activity Company |
| 20. | BIOCOMPATABLE PHASE INVERTABLE PROTEINACEOUS COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME | 14/804669 | 7/21/2015 | | | Mallinckrodt Pharma IP Trading Designated Activity Company |