

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT8345044

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MALLINCKRODT HOSPITAL PRODUCTS IP UNLIMITED COMPANY	03/22/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MALLINCKRODT PHARMACEUTICALS IRELAND LIMITED
<b>Street Address:</b>	COLLEGE BUSINESS & TECHNOLOGY PARK
<b>Internal Address:</b>	CRUISERATH, BLANCHARDSTOWN
<b>City:</b>	DUBLIN
<b>State/Country:</b>	IRELAND
<b>Postal Code:</b>	15
<b>PROPERTY NUMBERS Total: 3</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14744298
<b>Application Number:</b>	16502828
<b>Application Number:</b>	18084113
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Email:</b>	mmarsh@polsinelli.com
<b>Correspondent Name:</b>	POLSINELLI PC
<b>Address Line 1:</b>	1000 LOUISIANA STREET
<b>Address Line 2:</b>	SUITE 6400
<b>Address Line 4:</b>	HOUSTON, TEXAS 77002
<b>ATTORNEY DOCKET NUMBER:</b>	054501-573882-8
<b>NAME OF SUBMITTER:</b>	MICHELLE MARSH
<b>SIGNATURE:</b>	/Michelle Marsh/
<b>DATE SIGNED:</b>	12/21/2023
<b>Total Attachments: 7</b>	
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**PATENT**

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## PATENT ASSIGNMENT AGREEMENT

This Patent Assignment Agreement (this “Assignment”) is made effective December 24, 2020 (the “Effective Date”), by and between Mallinckrodt Hospital Products IP Unlimited Company, a private unlimited company incorporated in Ireland with company number 568351 and having its registered office at College Business & Technology Park, Cruiserath, Blanchardstown, Dublin 15 (“Assignor”) and Mallinckrodt Pharmaceuticals Ireland Limited, a private limited company incorporated in Ireland with company number 548294 and having its registered office at College Business & Technology Park, Cruiserath, Blanchardstown, Dublin 15 (“Assignee”). Assignor and Assignee may be referred to in this Assignment each as a “Party” and collectively as the “Parties”.

WHEREAS, the Parties entered into an IP asset purchase agreement (the “Purchase Agreement”) effective as of December 24, 2020 in respect of the sale and purchase of certain intellectual property from the Assignor to the Assignee, including, among other things, the Purchased Patents (as defined below), the Parties have agreed that Assignor would assign the Purchased Patents (as defined below) to Assignee; and

NOW, THEREFORE, for 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. Assignor hereby sells, assigns, transfers and conveys to Assignee, and Assignee purchases, acquires and accepts, all of Assignor’s right, title, and interest in, to and under the patents and pending patent applications set forth on Schedule A attached hereto, together with any and all renewals, reissuances, continuations, continuations-in-part, divisionals, revisions, extensions, re-examinations, foreign counterparts or any other legal equivalents thereof in a foreign country, and national stage entries or validations based on PCT or EPO applications (collectively, the “Purchased Patents”). Assignor further agrees to execute such additional documents reasonably required by Assignee to secure and enforce the rights granted to Assignee under this Assignment, including executing documents requested by Assignee to complete formalities for perfecting the assignment of all Purchased Patents and recordation of the assignment of the Purchased Patent registrations with the appropriate governmental authorities.

2. Assignee may record this Assignment with the United States Patent and Trademark Office and with comparable offices in other jurisdictions throughout the world, as well as with any other United States or foreign government office as may be necessary or appropriate.

3. This Assignment is supplemental to the Purchase Agreement. Each of Assignee and Assignor hereby acknowledges and affirms that the rights and obligations of each such party with respect to the transactions contemplated hereby are more fully set forth in the Purchase Agreement.

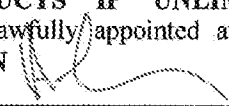
4. This Assignment and any dispute arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the laws of Ireland without giving effect to its rules on conflicts of law.

5. This Agreement may be executed simultaneously in multiple counterparts (including by facsimile, PDF or similar method), each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

[Signatures on following page]

Assignor:

For and on behalf of MALLINCKRODT  
HOSPITAL PRODUCTS IP UNLIMITED  
COMPANY by its lawfully appointed attorney,  
ALASDAIR FENLON

By:   
Title: Authorised Signatory  
Date: 22 March 2021

Assignee:

For and on behalf of MALLINCKRODT  
PHARMACEUTICALS IRELAND LIMITED  
by its lawfully appointed attorney AARON  
KEOGH

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

[Signature Page to Patent Assignment Agreement]

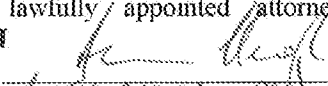
Assignor:

For and on behalf of MALLINCKRODT  
HOSPITAL PRODUCTS IP UNLIMITED  
COMPANY by its lawfully appointed attorney,  
ALASDAIR FENLON

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Assignee:

For and on behalf of MALLINCKRODT  
PHARMACEUTICALS IRELAND LIMITED  
by its lawfully appointed attorney AARON  
KEOGH

By:   
Title: ATTORNEY AT LAW  
Date: 22 March 2021

[Signature Page to Patent Assignment Agreement]

SCHEDULE A

Reference	Country ID	Serial #	Filed Date	Title
H-IK-30050 US CON.1	US	15/010999	01/29/2016	SYSTEMS AND METHODS FOR COMPENSATING LONG TERM SENSITIVITY DRIFT OF ELECTROCHEMICAL GAS SENSORS EXPOSED TO NITRIC OXIDE
H-IK-30048 US DIV.1	US	15/493578	04/21/2017	ADMINISTRATION AND MONITORING OF NITRIC OXIDE IN EX VIVO FLUIDS
H-IK-30054 US	US	14/750429	06/25/2015	NO2 TO NO REACTOR CARTRIDGE WITH IMPROVED CARTRIDGE STRUCTURE AND/OR THAT MAY BE USED WITH CONSTANT AND/OR VARIABLE FLOW VENTILATORS
H-TK-00031 US CON.2	US	15/981332	05/16/2018	METHOD FOR EX-VIVO EXPANSION OF REGULATORY T CELLS WITH ENHANCED SUPPRESSIVE FUNCTION FOR CLINICAL APPLICATION IN IMMUNE MEDIATED DISEASES
H-IK-00001 WO/US	US	16/077276	08/10/2018	USE AND MONITORING OF INHALED NITRIC OXIDE WITH LEFT VENTRICULAR ASSIST DEVICES
H-IK-00008 US	US	16/112297	08/24/2018	METHODS TO IMPROVE ORGAN VIABILITY
H-TK-00028 WO/US CON.1	US	16/165679	10/19/2018	USE OF AOPTOTIC CELLS EX VIVO TO GENERATE REGULATORY T CELLS
H-IK-30037 US D1	US	16/217998	12/12/2018	GAS DELIVERY DEVICE AND SYSTEM FOR USE IN MAGNETIC RESONANCE IMAGING
H-IK-30051 US CON.2	US	16/253834	01/22/2019	SYSTEMS AND METHOD FOR DELIVERY OF THERAPEUTIC GAS TO PATIENTS IN NEED THEREOF USING ENHANCED BREATHING CIRCUIT GAS (BCG) FLOW MEASUREMENT
H-IK-30051 US CON.3	US	16/253871	01/22/2019	SYSTEMS AND METHOD FOR DELIVERY OF THERAPEUTIC GAS TO PATIENTS IN NEED THEREOF USING ENHANCED BREATHING CIRCUIT GAS (BCG) FLOW MEASUREMENT
H-IK-40001 US DIV.1	US	16/411944	05/14/2019	METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE I

H-IK-30055 US      US      14/744298      06/19/2015      SYSTEMS AND METHODS FOR MANUFACTURING AND SAFETY OF AN NO2-TO-NO REACTOR CARTRIDGE USED TO DELIVER NO FOR INHALATION THERAPY TO A PATIENT

SCHEDULE A

Reference	Country ID	Serial #	Filed Date	Title
H-IK-30038 US CON.1	US	16/365263	03/26/2019	DEVICES AND METHODS FOR MONITORING OXYGENATION URING TREATMENT WITH DELIVERY OF NITRIC OXIDE
H-IK-30055 US DIV1	US	16/502828	07/03/2019	SYSTEMS AND METHODS FOR MANUFACTURING AND SAFETY OF AN NO2-TO-NO REACTOR CARTRIDGE USED TO DELIVER NO FOR INHALATION THERAPY TO A PATIENT
H-IK-00007 US DIV.1	US	16/665353	10/28/2019	APPARATUS AND METHOD FOR HUMIDITY CONDITIONING SAMPLE GAS OF A PATIENT BREATHING CIRCUIT AFFILIATED WITH A VENTILATOR AND/OR NITRIC OXIDE DELIVERY SYSTEM
H-IK-30029T.1 US CON.1	US	16/537955	08/12/2019	APPARATUS AND METHOD FOR MONITORING NITRIC OXIDE DELIVERY
H-IK-30047 US DIV.1	US	16/677435	11/07/2019	CLINICAL DECISION SUPPORT SYSTEM AND METHODS
H-IK-30040 US DIV.1	US	16/704530	12/05/2019	ENHANCED PERFORMANCE VERIFICATION PORT FOR THERAPEUTIC GAS DELIVERY
H-IK-00002 US CON.1	US	16/598786	10/10/2019	COMPENSATING FOR DISRUPTIONS IN BREATHING GAS FLOW MEASUREMENT
H-IK-00005 US CON.1	US	16/724786	12/23/2019	APPARATUS AND METHOD FOR DETECTING LIQUID LEVEL IN A CLEAR OR PARTIALLY CLEAR CONTAINER
H-IK-40001T.1 US	US	16/669151	10/30/2019	METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE 1
H-IK-30053 US CON.1	US	16/696142	11/26/2019	SYSTEMS AND METHODS FOR INDICATING LIFETIME OF AN NO2-TO-NO REACTOR CARTRIDGE USED TO DELIVER NO FOR INHALATION THERAPY TO A PATIENT
H-IK-30043 WO/US DIV.1	US	16/803719	02/27/2020	METHOD OF IDENTIFYING AND TREATING PREMATURE INFANTS AT RISK FOR BPD

PATENT

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SCHEDULE A

Reference	Country ID	Serial #	Filed Date	Title
H-IK-30041 US CON.1	US	16/748319	01/21/2020	SYSTEMS AND METHODS FOR DELIVERY OF THERAPEUTIC GAS
H-IK-40001T.1 CON1	US	16/828674	03/24/2020	METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE 1
H-IK-30042 US CON.2	US	16/825840	03/20/2020	INTELLIGENT GAS SOURCE MANAGEMENT
H-IK30048T.2 US CON.1	US	16/856632	04/23/2020	ADMINISTRATION AND MONITORING OF NITRIC OXIDE IN EX VIVO FLUIDS
H-IK-30042 US CON.3	US	16/825848	03/20/2020	SYSTEMS AND METHODS FOR INTELLIGENT GAS SOURCE MANAGEMENT
H-IK-40001T.2 US	US	16/828681	03/24/2020	METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE 1
H-IK-00006 US DIV.1	US	16/864321	05/01/2020	APPARATUS AND METHOD FOR FILTERING LIQUID PARTICLES FROM INSPIRATORY GAS FLOW OF A PATIENT BREATHING CIRCUIT AFFILIATED WITH A VENTILATOR AND/OR NITRIC OXIDE DELIVERY SYSTEM
H-IK-00024 US	US	17/083409	10/29/2020	METHOD OF TREATING PATIENTS WITH HEPATORENAL SYNDROME TYPE 1 AND LOW MEAN ARTERIAL PRESSURE
H-IK-30052 US CON.2	US	17/078821	10/23/2020	SYSTEMS AND METHOD FOR DELIVERY OF THERAPEUTIC GAS TO PATIENTS IN NEED THEREOF RECEIVING BREATHING GAS FROM A VENTILATOR THAT VARIES AT LEAST PRESSURE AND/OR FLOW USING ENHANCED THERAPEUTIC GAS (NO) FLOW MEASUREMENT
H-TK-00030 US CON.5.	US	17/176013	02/15/2021	PROCESSING BLOOD

H-IK-30055US DIV2(740461) US 18/084113 12/19/2022 SYSTEMS AND METHODS FOR MANUFACTURING AND SAFETY OF AN NO2-TO-NO REACTOR CARTRIDGE USED TO DELIVER NO FOR INHALATION THERAPY TO A PATIENT

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