

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5847277

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RACHEL APFELBAUM	04/07/2017
ANDREW JAMES PEAT	04/07/2017
YOON OH	04/14/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED
<b>Street Address:</b>	980 GREAT WEST ROAD
<b>City:</b>	BRENTFORD, MIDDLESEX
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	TW8 9GS
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16701729
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(610)917-6934
<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>Phone:</b>	6109177817
<b>Email:</b>	US_cipkop@gsk.com
<b>Correspondent Name:</b>	GLAXOSMITHKLINE GLOBAL PATENTS UP4110
<b>Address Line 1:</b>	1250 SOUTH COLLEGEVILLE ROAD
<b>Address Line 4:</b>	COLLEGEVILLE, PENNSYLVANIA 19426
<b>ATTORNEY DOCKET NUMBER:</b>	PR66022C1
<b>NAME OF SUBMITTER:</b>	MINDY L. SMITH
<b>SIGNATURE:</b>	/Mindy L. Smith/
<b>DATE SIGNED:</b>	12/03/2019
<b>Total Attachments: 12</b>	
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## ASSIGNMENT

WHEREAS I/WE, Rachel APFELBAUM a citizen of United States of Collegeville, PA, Andrew James PEAT a citizen of United States of Collegeville, PA, Yoon OH a citizen of United States of Collegeville, PA, (hereinafter called "the inventor(s)") have invented or discovered certain improvements in "Formulations For Intravenous Administration" (hereinafter referred to as "the invention and improvements") for which priority application 62/260727 was filed on 30 Nov 2015 in the United States, and for which a PCT international application PCT/IB2016/057220 was filed on 30 Nov 2016, designating the United States of America.

WHEREAS, GLAXOSMITHKLINE LLC, a company incorporated in the State of Delaware, USA, whose registered address is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, United States of America, is desirous of acquiring the whole right, title and interest in and to said invention and improvements, and in and to any applications for said invention and improvements, including the right to claim priority, and in and to and any Letters Patent to be obtained therefor, in all countries, including the United States, its territories and possessions, and

WHEREAS GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED, a company incorporated in England whose registered address is 980 Great West Road, Brentford, Middlesex TW8 9GS, England, is desirous of acquiring from GLAXOSMITHKLINE LLC the whole right, title and interest in and to the invention and improvements and in and to the application, and

WHEREAS GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED a company incorporated in England whose registered address is 980 Great West Road, Brentford, Middlesex TW8 9GS, England, is desirous of acquiring the whole right, title and interest in and to the invention and improvements and in and to any applications for the invention and improvements and any Letters Patent to be obtained therefor, in all countries, including the United States of America, its territories and possessions;

NOW, THEREFORE, to all whom it may concern, be it known that I/we, Rachel APFELBAUM, Andrew James PEAT, and Yoon OH for good and valuable consideration unto me/us moving, the receipt whereof is hereby acknowledged, have sold, assigned and transferred, and by these presents do sell, assign and transfer my/our whole right, title and interest in and to said invention and improvements to said GLAXOSMITHKLINE LLC, throughout the United States of America, its territories and possessions, and in and to said application, and any extensions, reissues, continuations, continuations-in-part, and any divisions

thereof, and in and to any and all Letters Patent of the United States of America, including any priority rights under the International Convention.

AND, my/our whole right, title and interest in and to said invention and improvements to GLAXOSMITHKLINE LLC, in all other countries throughout the world, and in and to any applications in said other countries, and continuations-in-part, patents of addition, revalidation patents, patents of importation, registrations, and any renewals, extensions and divisions thereof, and in and to any and all Letters Patent of said all other countries which may be granted on said invention and improvements including any priority rights under the International Convention.

GLAXOSMITHKLINE LLC in turn hereby assigns and transfers to GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof, and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED in turn hereby assigns and transfers to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof

AND I/we the inventor(s) and GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby authorise and request any patent arising therefrom, in all countries, including the United States of America, its territories and possessions, be issued to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED;

AND GLAXOSMITHKLINE SERVICES UNLIMITED and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby, and I/we the inventor(s) for myself/ourselves and my/our respective executors and legal representatives hereby, agree at the request and cost of GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED to provide information and make execute and deliver any and all other instruments in writing, and any and all further acts, applications, papers, affidavits, assignments and other documents which may be possible and are necessary or desirable to more effectually secure to and vest in GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED, its successors and assigns,

the whole right, title and interest in and to the invention and improvements and in and to the application hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

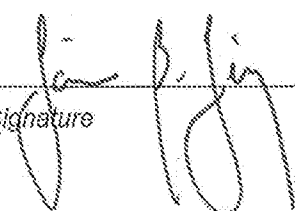
IN WITNESS whereof and with effect from the 30 Nov 2015, the inventor(s) and the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED have hereunto set their respective hands.

Rachel APFELBAUM: Rachel D. Apfelbaum DATE 07 APR 2017

Andrew James PEAT: \_\_\_\_\_ DATE \_\_\_\_\_

Yoon OH: \_\_\_\_\_ DATE \_\_\_\_\_

SIGNED by Lorraine B. Ling As the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED:

  
Signature

Date: 25 APR 2017



**ASSIGNMENT**

WHEREAS I/WE, Rachel APFELBAUM a citizen of United States of Collegeville, PA, Andrew James PEAT a citizen of United States of Collegeville, PA, Yoon OH a citizen of United States of Collegeville, PA, (hereinafter called "the inventor(s)") have invented or discovered certain Improvements in "Formulations For Intravenous Administration" (hereinafter referred to as "the invention and improvements") for which priority application 62/260727 was filed on 30 Nov 2015 in the United States, and for which a PCT international application PCT/IB2016/057220 was filed on 30 Nov 2016, designating the United States of America.

WHEREAS, GLAXOSMITHKLINE LLC, a company incorporated in the State of Delaware, USA, whose registered address is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, United States of America, is desirous of acquiring the whole right, title and interest in and to said invention and improvements, and in and to any applications for said invention and improvements, including the right to claim priority, and in and to and any Letters Patent to be obtained therefor, in all countries, including the United States, its territories and possessions, and

WHEREAS GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED, a company incorporated in England whose registered address is 980 Great West Road, Brentford, Middlesex TW8 9GS, England, is desirous of acquiring from GLAXOSMITHKLINE LLC the whole right, title and interest in and to the invention and improvements and in and to the application, and

WHEREAS GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED a company incorporated in England whose registered address is 980 Great West Road, Brentford, Middlesex TW8 9GS, England, is desirous of acquiring the whole right, title and interest in and to the invention and improvements and in and to any applications for the invention and improvements and any Letters Patent to be obtained therefor, in all countries, including the United States of America, its territories and possessions;

NOW, THEREFORE, to all whom it may concern, be it known that I/we, Rachel APFELBAUM, Andrew James PEAT, and Yoon OH for good and valuable consideration unto me/us moving, the receipt whereof is hereby acknowledged, have sold, assigned and transferred, and by these presents do sell, assign and transfer my/our whole right, title and interest in and to said invention and improvements to said GLAXOSMITHKLINE LLC, throughout the United States of America, its territories and possessions, and in and to said application, and any extensions, reissues, continuations, continuations-in-part, and any divisions

thereof, and in and to any and all Letters Patent of the United States of America, including any priority rights under the International Convention.

AND, my/our whole right, title and interest in and to said invention and improvements to GLAXOSMITHKLINE LLC, in all other countries throughout the world, and in and to any applications in said other countries, and continuations-in-part, patents of addition, revalidation patents, patents of importation, registrations, and any renewals, extensions and divisions thereof, and in and to any and all Letters Patent of said all other countries which may be granted on said invention and improvements including any priority rights under the International Convention.

GLAXOSMITHKLINE LLC in turn hereby assigns and transfers to GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof, and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED in turn hereby assigns and transfers to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof

AND I/we the inventor(s) and GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby authorise and request any patent arising therefrom, in all countries, including the United States of America, its territories and possessions, be issued to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED;

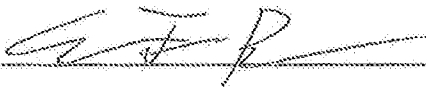
AND GLAXOSMITHKLINE SERVICES UNLIMITED and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby, and I/we the inventor(s) for myself/ourselves and my/our respective executors and legal representatives hereby, agree at the request and cost of GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED to provide information and make execute and deliver any and all other instruments in writing, and any and all further acts, applications, papers, affidavits, assignments and other documents which may be possible and are necessary or desirable to more effectually secure to and vest in GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED, its successors and assigns,



the whole right, title and interest in and to the invention and improvements and in and to the application hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

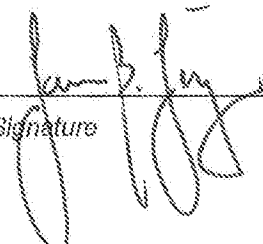
IN WITNESS whereof and with effect from the 30 Nov 2015, the inventor(s) and the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED have hereunto set their respective hands.

Rachel APFELBAUM: \_\_\_\_\_ DATE \_\_\_\_\_

Andrew James PEAT:  \_\_\_\_\_ DATE 4/7/17

Yoon OH: \_\_\_\_\_ DATE \_\_\_\_\_

SIGNED by Lorraine B. Ling As the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED:

  
\_\_\_\_\_  
Signature

Date: 25 APR 2017



## ASSIGNMENT

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NOW, THEREFORE, to all whom it may concern, be it known that I/we, Rachel APFELBAUM, Andrew James PEAT, and Yoon OH for good and valuable consideration unto me/us moving, the receipt whereof is hereby acknowledged, have sold, assigned and transferred, and by these presents do sell, assign and transfer my/our whole right, title and interest in and to said invention and improvements to said GLAXOSMITHKLINE LLC, throughout the United States of America, its territories and possessions, and in and to said application, and any extensions, reissues, continuations, continuations-in-part, and any divisions

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GLAXOSMITHKLINE LLC in turn hereby assigns and transfers to GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof, and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED in turn hereby assigns and transfers to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED its whole right, title and interest in all countries, including the United States of America, its territories and possessions in and to the invention and improvements and in and to the application including the right to claim priority from the application in respect of any subsequent applications, and in and to any divisional application, continuation or continuation in part application thereof, and in and to any Supplementary Protection Certificate, extension or re-issue thereof

AND I/we the inventor(s) and GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby authorise and request any patent arising therefrom, in all countries, including the United States of America, its territories and possessions, be issued to GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED;

AND GLAXOSMITHKLINE SERVICES UNLIMITED and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED hereby, and I/we the inventor(s) for myself/ourselves and my/our respective executors and legal representatives hereby, agree at the request and cost of GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED to provide information and make execute and deliver any and all other instruments in writing, and any and all further acts, applications, papers, affidavits, assignments and other documents which may be possible and are necessary or desirable to more effectually secure to and vest in GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED, its successors and assigns,

the whole right, title and interest in and to the invention and improvements and in and to the application hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

IN WITNESS whereof and with effect from the 30 Nov 2015, the inventor(s) and the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED have hereunto set their respective hands.

Rachel APFELBAUM: \_\_\_\_\_ DATE \_\_\_\_\_

Andrew James PEAT: \_\_\_\_\_ DATE \_\_\_\_\_

Yoon OH: *Ch. Yoon* \_\_\_\_\_ DATE 14 Apr 2018

SIGNED by Lorraine B. Ling As the Attorney & Authorised Official of GLAXOSMITHKLINE LLC and GLAXOSMITHKLINE RESEARCH AND DEVELOPMENT LIMITED and GLAXOSMITHKLINE INTELLECTUAL PROPERTY (NO.2) LIMITED:

*Lorraine B. Ling*  
Signature

Date: 7 APR 2018

