PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CARINE CAPIAU	07/22/2014
MARGUERITE DESCHAMPS	06/26/2014
PIERRE MICHEL DESMONS	07/22/2014
CRAIG ANTONY JOSEPH LAFERRIERE	07/22/2014
JAN POOLMAN	11/14/2014
JEAN-PAUL PRIEELS	07/22/2014

RECEIVING PARTY DATA

Name:	GLAXOSMITHKLINE BIOLOGICALS S.A.
Street Address:	RUE DE L'INSTITUT 89
City:	RIXENSART
State/Country:	BELGIUM
Postal Code:	B-1330

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14550345

CORRESPONDENCE DATA

Fax Number: (919)483-7977

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.

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GLAXOSMITHKLINE GLOBAL PATENTS Correspondent Name:

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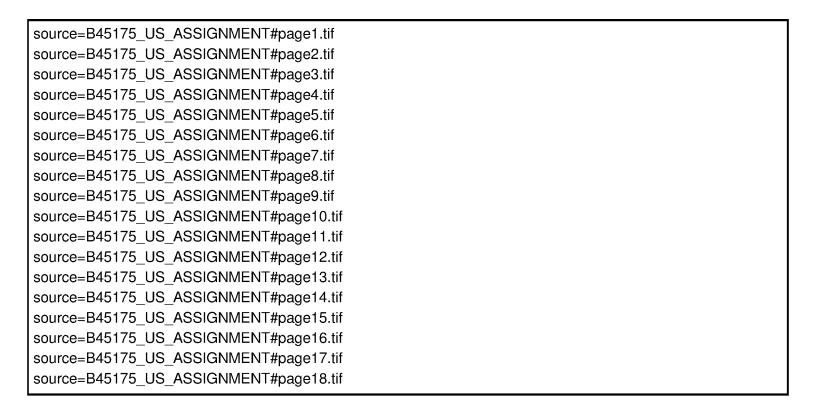
Address Line 4: RESEARCH TRIANGLE PK, NORTH CAROLINA 27709

ATTORNEY DOCKET NUMBER:	B45175D1
NAME OF SUBMITTER:	JOHNIE JONES
SIGNATURE:	/Johnie Jones/
DATE SIGNED:	08/12/2015

Total Attachments: 18

PATENT REEL: 036333 FRAME: 0750

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WHEREAS IWE, Cerine CAPIAU a citizen of Belgium of Rixensert, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensert, Belgium; Pjene Michel Desmote a citizen of Belgium of Rixensert, Belgium; Craig Anthony discipit CAFERRIERE a citizen of Canada of Mississeuga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensert, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensert, Belgium, (hereinafter celled "the inventor(a)") have invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the invention and improvements") for which application 12/612988 was filed on 05 Nev 2009 in the United States of America.

WHEREAS GLAXOSMITHISLINE BIOLOGICALS S.A., a company incorporated in Belgium, whose registered office is at rue de l'institut 89, B-1830 Rixensart, Belgium, is destrous of acquiring the whole right, title and interest in and to the invertion, and in and to any applications for the invertion and any Letters Patent to be obtained therefor, in all countries, including the United States of America, its territories and possessione;

NOW, THEREFORE, is all whom it may concern, be it known that live, the inventors, hereby confirm the ownership by GLAXOSMITHIC. INE BIOLOGICALS S.A. of the invention and the application by operation of lew and, if under the lew of the United States of America Live the inventor(s) have any ownership right, title and Interest in and to the invention and the application (which Live do not believe to be the case and claim no ownership right, title or interest in and to the invention and to the application based on the law of Belgium), Live the inventor(s) nevertheless hereby assign and transfer such ownership right, title and interest in and to the invention and to the application, including the right to claim priority from the application in respect of any subsequent applications, to CLAXOSMITHICLINE BIOLOGICALS S.A. in all countries, including the United States of America, its territories and possessions;

AND tive, the inventors, hereby assign and transfer to DLAXOSMITHKLINE DICLINITIALS B.A., mylour whole right title and interest in and to the intention and the application, and in and to any divisional application, continuation or continuation-in-part

AND, I/we the inventor(s) for myselflourselves and my/our respective executors and legal representatives hereby, agree at the request and cost of CLAXOSMITHICLINE. BIOLOGICALS S.A., to provide information and make, execute and deliver any and all other instruments in writing, and any and all further acis, applications, papers, altidevits, assignments and other documents which may be possible and are necessary or desirable to more effectually secure to and vest in said GLAXOSMITHICLINE BIOLOGICALS S.A., its successors and assigns, the whole right, title and interest in and to the invention hembly assigned and transferred in all countries, including the United States of America, its territories and possessions.

IN WITNESS WHEREOF, and with effect from 19 Mar 1999, tiwe the inventors and the Attorney & Authorised Official of GLAXOSMITHKLING PIOLOGICALS S.A. have hereunto set mylour respective hand(a).

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Carine CAPIAU;		ed good die
Marguerite DESCHAMPS:		
Diarra Michal Decembro		

P 16/29/2014	845175
Craig Antifoldy Joseph LAFERRIERE	5 5.7 20, 8014
Jan POOLMAN:	
Dr. Juan-Paul PRIEELS:	
SIGNED BY ALAW SCRI	VNER
As the Allimney & Authorised Official of GLAX	OSMITHKLINE BIOLOGICALS 6.A.:
Ha Sension Blassoure	Date: 1810V14
william.	

WHEREAS I/WE, Carine CAPIAU a citizen of Belgium of Rixensart, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensart, Belgium; Pierre Michel Desmons a citizen of Belgium of Rixensart, Belgium; Craig Anthony Joseph LAFERRIERE a citizen of Canada of Mississauga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensart, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensart, Belgium, (hereinafter called "the inventor(s)") have invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the invention and improvements") for which application 12/612988 was filed on 05 Nov 2009 in the United States of America.

WHEREAS GLAXOSMITHKLINE BIOLOGICALS S.A., a company incorporated in Belgium, whose registered office is at rue de l'institut 89, B-1330 Rixensart, Belgium, is desirous of acquiring the whole right, title and interest in and to the invention, and in and to any applications for the invention 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, the inventors, hereby confirm the ownership by GLAXOSMITHKLINE BIOLOGICALS S.A. of the invention and the application by operation of law and, if under the law of the United States of America I/we the inventor(s) have any ownership right, title and interest in and to the invention and the application (which I/we do not believe to be the case and claim no ownership right, title or interest in and to the invention and to the application based on the law of Belgium), I/we the inventor(s) nevertheless hereby assign and transfer such ownership right, title and interest in and to the invention and to the application, including the right to claim priority from the application in respect of any subsequent applications, to GLAXOSMITHKLINE BIOLOGICALS S.A. in all countries, including the United States of America, its territories and possessions;

AND I/we, the inventors, hereby assign and transfer to GLAXOSMITHKLINE BIOLOGICALS S.A., my/our whole right title and interest in and to the invention and the application, and in and to any divisional application, continuation or continuation-in-part

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 BIOLOGICALS S.A., 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 said GLAXOSMITHKLINE BIOLOGICALS S.A., its successors and assigns, the whole right, title and interest in and to the invention hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

IN WITNESS WHEREOF, and with effect from 19 Mar 1999, I/we the inventors and the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A. have hereunto set my/our respective hand(s).

Inventor Name	Signature	Date:	
Carine CAPIAU:	Capiaus -	2 July 201	16,
Marguerite DESCHAMP	s:		
Pierre Michel Desmons:			

Craig Anthony Joseph
LAFERRIERE:
Jan POOLMAN:
Pro- James Pro- A representative
Dr. Jean-Paul PRIEELS:
A
SIGNED BY ALAN SCRIVNER
SIGNED by /TCAN OCKTUNER
As the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A.:
12 (
Xty Jeryon Date: 18NOV14
2000/4 Date: 18/00/4

Signature

WHEREAS I/WE, Carine CAPIAU a citizen of Belgium of Rixensart, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensart, Belgium; Pierre Michel Desmons a citizen of Belgium of Rixensart, Belgium; Craig Anthony Joseph LAFERRIERE a citizen of Canada of Mississauga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensart, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensart, Belgium, (hereinafter called "the Inventor(s)") have Invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the Invention and improvements") for which application 12/612988 was filed on 05 Nov 2009 in the United States of America.

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NOW, THEREFORE, to all whom it may concern, be it known that I/we, the inventors, hereby confirm the ownership by GLAXOSMITHKLINE BIOLOGICALS S.A. of the invention and the application by operation of law and, if under the law of the United States of America I/we the inventor(s) have any ownership right, title and interest in and to the invention and the application (which I/we do not believe to be the case and claim no ownership right, title or interest in and to the invention and to the application based on the law of Belgium), I/we the inventor(s) nevertheless hereby assign and transfer such ownership right, title and interest in and to the invention and to the application, including the right to claim priority from the application in respect of any subsequent applications, to GLAXOSMITHKLINE BIOLOGICALS S.A. in all countries, including the United States of America, its territories and possessions;

AND I/we, the inventors, hereby assign and transfer to GLAXOSMITHKLINE BIOLOGICALS S.A., my/our whole right title and interest in and to the invention and the application, and in and to any divisional application, continuation or continuation-in-part

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 BIOLOGICALS S.A., 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 said GLAXOSMITHKLINE BIOLOGICALS S.A., its successors and assigns, the whole right, title and interest in and to the invention hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

IN WITNESS WHEREOF, and with effect from 19 Mar 1999, I/we the inventors and the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A. have hereunto set my/our respective hand(s).

Inventor Name	Signature	Date
Carine CAPIAU:		
Marguerite DESCHAMPS	: Merhangs	26 Jure 2014
Pierre Michel Desmons:		

Craig Anthony Joseph
LAFERRIERE:
Same (MANA) ARABI
Jan POOLMAN:
Dr. Jean-Paul PRIEELS:
A. Carren
SIGNED BY ALAN SCRIVNER
As the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A.:
181114
Haranin Date: 18NOV14
Signature

WHEREAS IWE, Carine CAPIAU a citizen of Belgium of Rixensart, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensart, Belgium; Pierre Michel Desmons a citizen of Belgium of Rixensart, Belgium; Craig Anthony Joseph LAFERRIERE a citizen of Canada of Mississauga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensart, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensart, Belgium, (hereinafter called "the inventor(s)") have invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the invention and improvements") for which application 12/612988 was filed on 05 Nov 2009 in the United States of America.

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NOW, THEREFORE, to all whom it may concern, be it known that I/we, the inventors, hereby confirm the ownership by GLAXOSMITHKLINE BIOLOGICALS S.A. of the invention and the application by operation of law and, if under the law of the United States of America I/we the inventor(s) have any ownership right, title and interest in and to the invention and the application (which I/we do not believe to be the case and claim no ownership right, title or interest in and to the invention and to the application based on the law of Belgium), I/we the inventor(s) nevertheless hereby assign and transfer such ownership right, title and interest in and to the invention and to the application, including the right to claim priority from the application in respect of any subsequent applications, to GLAXOSMITHKLINE BIOLOGICALS S.A. in all countries, including the United States of America, its territories and possessions:

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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.

BIOLOGICALS S.A., 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 said GLAXOSMITHKLINE BIOLOGICALS S.A., its successors and assigns, the whole right, title and interest in and to the invention hereby assigned and transferred in all countries, including the United States of America, its territories and possessions.

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Invertor Name	Signature	Date
Carine CAPIAU:		
Marguerite DESCHAMP	S:	
Pierre Michel Desmons:		22 Jaly 2014

Craig Anthony Joseph
LAFERRIERE:
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Jan POOLMAN:
Dr. Jean-Paul PRIEELS:
A. Comments of the second of t
SIGNED BY ALAN SCRIVNER
As the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A.:
AS 1800110
Hydrumia Date: 18NOV14
Signature

WHEREAS I/WE, Carine CAPIAU a citizen of Belgium of Rixensart, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensart, Belgium; Pierre Michel Desmons a citizen of Belgium of Rixensart, Belgium; Craig Anthony Joseph LAFERRIERE a citizen of Canada of Mississauga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensart, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensart, Belgium, (hereinafter called "the inventor(s)") have invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the invention and improvements") for which application 12/612988 was filed on 05 Nov 2009 in the United States of America.

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inventor Name	Signature	Date:
Carine CAPIAU:		
Marguerite DESCHAMPS		
Pierre Michel Desmons:		

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Craig Anthony Joseph
LAFERRIERE:
Jan POOLMAN: 14-1-10v-2014
Dr. Jean-Paul PRIEELS:
SIGNED BY ALAN SCRIVNER
As the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOGICALS S.A.:
Alm Samonin Date: 18NOV 14 Signature

WHEREAS I/WE, Carine CAPIAU a citizen of Belgium of Rixensart, Belgium; Marguerite DESCHAMPS a citizen of Belgium of Rixensart, Belgium; Pierre Michel Desmons a citizen of Belgium of Rixensart, Belgium; Craig Anthony Joseph LAFERRIERE a citizen of Canada of Mississauga, Ontario, Canada; Jan POOLMAN a citizen of Netherlands of Rixensart, Belgium; Dr. Jean-Paul PRIEELS a citizen of Belgium of Rixensart, Belgium, (hereinafter called "the inventor(s)") have invented or discovered certain improvements in "VACCINE" (hereinafter referred to as "the invention and improvements") for which application 12/612988 was filed on 05 Nov 2009 in the United States of America.

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Inventor Name	Signature	Date
Carine CAPIAU:		
Marguerite DESCHAMP	\$ <u></u>	
Pierre Michel Desmons:		

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Craig Anthony Joseph	
LAFERRIERE:	ni vi
Jan POOLMAN;	ganantai,
Dr. Jean-Paul PRIEELS:	
SIGNED by ALAN SCRIVNER	
As the Attorney & Authorised Official of GLAXOSMITHKLINE BIOLOG	iiCALS S.A.:
Sh Servin Date: 18 NOV	14
Signature	

PATENT REEL: 036333 FRAME: 0769

RECORDED: 08/12/2015