

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4841329

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BRYON L SIMMONS	03/07/2017
KEVIN R CAMPOS	03/07/2017
ARTIS KLAPARS	03/07/2017
PETER E MALIGRES	04/04/2017
STEVEN MARK SILVERMAN	03/13/2017
YONG-LI ZHONG	03/07/2017
ALAN HYDE	03/07/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MERCK SHARP & DOHME CORP.
<b>Street Address:</b>	126 EAST LINCOLN AVE
<b>City:</b>	RAHWAY
<b>State/Country:</b>	NEW JERSEY
<b>Postal Code:</b>	07065
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15519846
<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>	us_efs@merck.com
<b>Correspondent Name:</b>	MERCK SHARP & DOHME CORP.
<b>Address Line 1:</b>	126 EAST LINCOLN AVE
<b>Address Line 4:</b>	RAHWAY, NEW JERSEY 07065
<b>ATTORNEY DOCKET NUMBER:</b>	23849
<b>NAME OF SUBMITTER:</b>	TANYA L TORRES
<b>SIGNATURE:</b>	/Tanya L. Torres/
<b>DATE SIGNED:</b>	02/27/2018
<b>Total Attachments: 5</b>	

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## WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Bryon L. Simmons, located at Hamilton, NJ,
- (2) Kevin R. Campos, located at Berkeley Heights, NJ,
- (3) Artis Klapars, located at Edison, NJ,
- (4) Peter E. Maligres, located at Fanwood, NJ,
- (5) Alan Hyde, located at Jersey City, NJ,
- (6) Steven Mark Silverman, located at Jersey City, NJ,
- (7) Yong-Li Zhong, located at Edison, NJ,

(hereinafter ASSIGNOR(S)), together with Kara Van Valkenburg, located at Syracuse, New York, Kenneth Baker, located at Syracuse, New York, Alistair J. Stewart, located at Somerville, Massachusetts, Benjamin A. Mayes, located at Boston, Massachusetts, and Adel M. Moussa, located at Burlington, Massachusetts, are the inventors of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

PROCESS FOR MAKING NUCLEOSIDE PHOSPHORAMIDATE COMPOUNDS

and in the following application(s):

U.S. Provisional Application No. 62/066,049 filed on 10/20/2014;  
U.S. Provisional Application No. 62/130,834 filed on 03/10/2015;  
U.S. Application No. \_\_\_\_\_ having a filing date of \_\_\_\_\_; and  
PCT International Application No. PCT/US2015/056333 having a filing date of 10/20/2015.

WHEREAS I/WE covenant that the rights and property herein conveyed are free and clear of any encumbrance, and that I/we have the full right to convey the same as herein expressed.

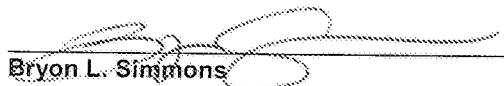
WHEREAS, Merck Sharp & Dohme Corp., a corporation organized under the laws of the State of New Jersey, having an office at 126 East Lincoln Avenue, Rahway, New Jersey 07065, and its successors, assigns and legal representatives (hereinafter **ASSIGNEE**), is desirous of obtaining the entire right, title and interest in, to and under the invention disclosed in said application or applications;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I/we, said ASSIGNOR(S), do each hereby sell, assign and transfer or confirm the grant and assignment to said **ASSIGNEE** my/our entire right, title and interest in all countries of the world in and to my/our invention described in said application for Patents, in and to the right to file patent applications in the name of **ASSIGNEE**, its designee, or in any or all of our names, at its election, on the aforesaid invention in all countries of the world, together with all rights of priority in the aforesaid countries deriving from the above-identified application for Patents under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models and under any other international arrangement relating to patents or intellectual property, in and to any and all Letters Patent that are granted from the aforesaid application for Patents, in and to any applications claiming priority benefits to a provisional patent application or other applications filed on said invention, and in and to any continuations, divisions, reexaminations, reissues, renewals and extensions thereof of any of said Letters Patent, the same to be held and enjoyed by said **ASSIGNEE**, to the full ends of the terms for which all Letters Patent therefore may be granted, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

AND I/WE HEREBY covenant and agree that we will at any time, upon the request and at the expense of **ASSIGNEE**, without further compensation or charge to said **ASSIGNEE**, execute and deliver any and all documents that may be necessary or desirable to perfect the title to the foregoing invention, patent applications, and Letters Patent and continuations, divisions, reexaminations, reissues, renewals and extensions thereof in the name of **ASSIGNEE**, including the execution and procurement of any and all further documents evidencing this assignment and sale as may be necessary or desirable for recording the same in the Patent Office of any country concerned, and will make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein.

I/WE HEREBY authorize **ASSIGNEE** to insert in this instrument the Application Number(s) and the filing date(s) of said application for Patents when officially notified thereof.

This document may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such components shall together constitute but one and the same document.

Executed this 7 day of March, 2017.  
Bryon L. Simmons

## ACKNOWLEDGEMENT

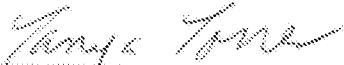
State of New Jersey )

) s.s.:

County of Union )

On this 7 day of March, 2017, personally appeared before me, **Bryon L. Simmons**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
Notary Public

**TANYA L. TORRES**  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires June 3, 2021

Executed this 7 day of March, 2017.  
Kevin R. Campos

## ACKNOWLEDGEMENT

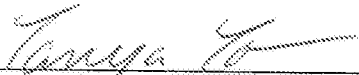
State of New Jersey )

) s.s.:

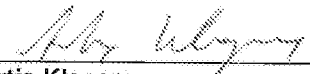
County of Union )

On this 7 day of March, 2017, personally appeared before me, **Kevin R. Campos**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
Notary Public

**TANYA L. TORRES**  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires June 3, 2021

Executed this 7 day of March, 2017.  
\_\_\_\_\_  
Artis Klapars

## ACKNOWLEDGEMENT

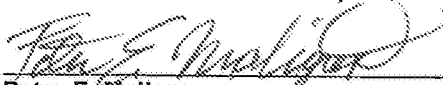
State of New Jersey       )  
  ) s.s.:  
County of Union        )

On this 7 day of March, 2017, personally appeared before me, **Artis Klapars**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
\_\_\_\_\_  
Notary Public

**TANYA L. TORRES**  
**NOTARY PUBLIC OF NEW JERSEY**  
My Commission Expires June 3, 2021

Executed this 4 day of April, 2017.  
\_\_\_\_\_  
Peter E. Maligres

## ACKNOWLEDGEMENT

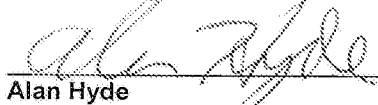
State of New Jersey       )  
  ) s.s.:  
County of Union        )

On this 4 day of April, 2017, personally appeared before me, **Peter E. Maligres**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
\_\_\_\_\_  
Notary Public

**TANYA L. TORRES**  
**NOTARY PUBLIC OF NEW JERSEY**  
My Commission Expires June 3, 2021

Executed this 7 day of March, 2017.  
\_\_\_\_\_  
Alan Hyde

## ACKNOWLEDGEMENT


State of New Jersey                    )  
  ) s.s.:  
County of Union                        )

On this 7 day of March, 2017, personally appeared before me, **Alan Hyde**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
\_\_\_\_\_  
Notary Public

**TANYA L. TORRES**  
**NOTARY PUBLIC OF NEW JERSEY**  
My Commission Expires June 3, 2021

Executed this 13 day of March, 2017  
\_\_\_\_\_  
Steven Mark Silverman

## ACKNOWLEDGEMENT

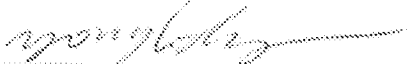
State of New Jersey                    )  
  ) s.s.:  
County of Union                        )

On this 13 day of March, 2017 personally appeared before me **Steven Mark Silverman**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

  
\_\_\_\_\_  
Notary Public

Executed this 7 day of March, 2017

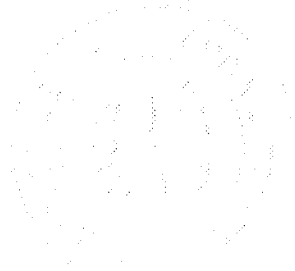
  
Yong-Li Zhong

**ACKNOWLEDGEMENT**

State of New Jersey                     )  
   ) s.s.:  
County of Union                             )

On this 7 day of March, 2017, personally appeared before me, **Yong-Li Zhong**, to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)



  
Notary Public

**TANYA L. TORRES**  
**NOTARY PUBLIC OF NEW JERSEY**  
**My Commission Expires June 3, 2021**