# 504060086 10/20/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4106752

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
DAVID TELLERS		10/09/2013
STEVEN L. COLLETTI		10/10/2013
VADIM DUDKIN		10/09/2013
JEFFREY AARONSON		10/09/2013
AARON MOMOSE		10/09/2013
THOMAS JOSEPH TUCKER		10/09/2013
YU YUAN		10/02/2013
KATHLEEN B. CALATI		10/09/2013
LU TIAN		10/02/2013
RUBINA G. PARMAR		10/09/2013
ANTHONY W. SHAW		10/09/2013
WEIMIN WANG		10/09/2013
RACHEL ANNE STORR		10/09/2013
MARINA BUSUEK		10/09/2013
ROBERT A. KOWTONIUK		10/16/2013

## **RECEIVING PARTY DATA**

Name:	MERCK SHARP & DOHME CORP.	
Street Address:	126 EAST LINCOLN AVENUE	
City:	RAHWAY	
State/Country:	NEW JERSEY	
Postal Code:	07065	

### **PROPERTY NUMBERS Total: 2**

Property Type	Number
Application Number:	61641741
Application Number:	14398369

## CORRESPONDENCE DATA

Fax Number:

(703)684-8075

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.

Address Line 1: Address Line 2:	Elizal JEFF 2318 SUIT	475979 beth.George@leclairryan.com REY N. TOWNES MILL ROAD E 1100 KANDRIA, VIRGINIA 22314
ATTORNEY DOCKET NUMBER: 29520.1402		
NAME OF SUBMITTER: JEFFREY N. TOWNES		
SIGNATURE: /Jeffrey N. Townes, Reg. # 47,142/		
DATE SIGNED:		10/20/2016
Total Attachments: 12 source=29520_1402_Assignment_for_filing#page1.tif source=29520_1402_Assignment_for_filing#page3.tif source=29520_1402_Assignment_for_filing#page4.tif source=29520_1402_Assignment_for_filing#page5.tif source=29520_1402_Assignment_for_filing#page6.tif source=29520_1402_Assignment_for_filing#page7.tif source=29520_1402_Assignment_for_filing#page8.tif source=29520_1402_Assignment_for_filing#page9.tif source=29520_1402_Assignment_for_filing#page1.tif source=29520_1402_Assignment_for_filing#page1.tif source=29520_1402_Assignment_for_filing#page1.tif		

WHEREAS, I/WE,

- David Tellers, located at Landsdale, PA, (1)
- Steven L. Colletti, located at Princeton Junction, NJ, (2)
- (3) Vadim Dudkin, located at Chalfont, PA,
- (4)Jeffrey Aaronson, located at Philadelphia, PA,
- (5)Aaron Momose, located at Blue Bell, PA,
- (6)Thomas Joseph Tucker, located at North Wales, PA,
- Yu Yuan, located at Oviedo, FL, (7)
- (8)Kathleen B. Calati, located at Hamilton, NJ,
- Lu Tian, located at Jamison, PA, (9)
- (10) Rubina G. Parmar, located at Harleysville, PA,
- Anthony W. Shaw, located at Harleysville, PA, (11)
- (12)Weimin Wang, located at Churchville, PA,
- (13) Rachel Anne Storr, located at Philadelphia, PA,
- (14) Marina Busuek, located at Center Valley, PA,
- (15) Robert A. Kowtoniuk, located at Glenside, PA,

(hereinafter ASSIGNOR(S)), is/are the inventor(s) of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

### NOVEL TETRAGALNAC AND PEPTIDE CONTAINING CONJUGATES AND METHODS FOR DELIVERY OF **OLIGONUCLEOTIDES**

and/or in the following application(s):

- U.S. Provisional Application No. 61/641,741 filed on May 2, 2012;
- having a filing date of \_ U.S. Application No.

\_; and 🗉 PCT International Application No. PCT/US13/039072 having a filing date of May 1, 2013.

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.

Computer Generated Template "Assignment-Merck Sharo & Dohme, Sincle Assignee Worldwide" (Assignment) Merck Sharo & Dohme Corp. 11/04/2010

Executed this 9 day of 0 thor, 20/3 David Tellers

ACKNOWLEDGEMENT Connorveal Warle ) s.s.: County of TIONER

On this <u>13</u> day of <u>0 Chibb</u>, 20 <u>13</u> personally appeared before me <u>David Tellers</u> 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

COMMONWEALTH OF PENNSYLVANIA Notarial Seal Marjorie M. Berinett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Executed this day of , 20 .

Steven L. Colletti

ACKNOWLEDGEMENT Mylvanie ornonweal 🖊 of 🖊 County of

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, personally appeared before me <u>Steven L. Colletti</u> 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 day of , 20	·
David Tellers	
ACKNOWLEDGEMENT	
of) s.s.: County of ) s.s.:	
	, personally appeared before me <b>David Tellers</b> to me known, and who executed the foregoing instrument, and acknowledged that he
(Seal)	
	Notary Public
Executed this 10 day of October , 201	3
Executed time to day of OCACET, 201	<u> </u>
Steven L. Colletti	
ACKNOWLEDGEMENT	
State of New Jersey	
County of Unicm	
On this 10 <sup>th</sup> day of October . 20	<u>B</u> , personally appeared before me <u>Steven L. Colletti</u> 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 t	
he (she) executed the same, of his (her) own free will f	majoritan
	Marent aa Notary Public
	for a second sec
he (she) executed the same, of his (her) own free will f	MARYANN HAAS NOTARY PUBLIC OF NEW JERSEY
	MARYANN HAAS NOTARY PUBLIC OF NEW JERSEY I.D. # 2080373
	MARYANN HAAS NOTARY PUBLIC OF NEW JERSEY I.D. # 2080373 My Commission Expires 9/18/2015

°:,

REEL: 040080 FRAME: 0190

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9 day)of ctuber, 2013 Executed this Vadim Dudkin

ACKNOWLEDGEMENT of ) s.s.: County of XIX D

, 20<u>(</u>], personally appeared before me <u>Vadim Dudkin</u> to me known, and day of ( On this 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) Alder

Notary Public

COMMONWEALTH OF PENNSYLVANIA Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Executed this <u>9</u> day of <u>Octu</u>

Jeffrey Aaronson

ACKNOWLEDGEMENT

(on nonwe S.S.: County of

,  $20\frac{3}{2}$ , personally appeared before me <u>Jeffrey Aaronson</u> to me known, On this \_day of ( 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)  $(\cdot, \cdot)$ 

COMPONWEAUSTICOF PENNSYLVANIA Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Page 3 of 9 Computer Generated Template "Assignment-Merck Sharp & Dohme. Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

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Executed this 9 day of October, 2013

Aaron Momose

ACKNOWLEDGEMENT nnsylvanie )s.s.: <u>ノ of / ル</u> Ontoner County of\_

On this <u>9</u> day of <u>0</u>, 20<u>1</u>, personally appeared before me <u>Aaron Momose</u> 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.

그는 (Seal)

Notary Public COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Executed this day of 20 / Thomas Joseph/Tucker

ACKNOWLEDGEMENT

Connanuralte of Pennywania county of Montgenery

On this day of <u>0</u>, 20<u>13</u> personally appeared before me <u>Thomas Joseph Tucker</u> 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) Page 4 of 9

COMMENTWEALLTING PENNSYLVANIA Notarial Seal

PATENT REEL: 040080 FRAME: 0192

Notarial 3941 Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Computer Generated Template "Assignment-Merck Sharp & Dohme. Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

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Executed this 2 day of October , 20/3. <u>`</u>\_\_\_\_ yn Mr

ACKNOWLEDGEMENT State

DRIVERS LICENSE of FLORIDA )s.s.: County of ORANCE

On this 2 day of <u>October</u>, 20<u>/</u>3, personally appeared before me <u>Yu Yuan</u> 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 purgose set forth.

(Seal)



Lai' Kay Vlemec Notary Public

Executed this \_\_\_\_ day of \_\_\_\_\_, 20 \_ .

Kathleen B. Calati

ACKNOWLEDGEMENT

\_\_\_\_\_\_ of \_\_\_\_\_)
County of \_\_\_\_\_\_ ) s.s.:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, personally appeared before me <u>Kathleen B. Calati</u> 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 \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_,

Yu Yuan

ACKNOWLEDGEMENT

\_\_\_\_\_\_ of \_\_\_\_\_) County of \_\_\_\_\_\_ )s.s.:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, personally appeared before me <u>Yu Yuan</u> 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  $0^{9}$  day of <u>0ct</u>, 2013.

Kathleen B. Calati

ACKNOWLEDGEMENT s.s.: County of



Notary Public

Page 5 of 9 Computer Generated Template "Assignment-Merck Sharp & Dohme. Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

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Attorney Docket No.: 23228

Executed this 2nd day of October, 2013.

Lu Tian

ACKNOWLEDGEMENT

Connorwealth c	of Pennsylvania
County of Buck	0 ) s.s.:
	avor October 201

On this  $\frac{2^{N}}{2^{N}}$  day of  $\underline{Octobec}$ , 2013, personally appeared before me <u>Lu Tian</u> 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)	
COMMONWEALTH OF PENNSYLVANIA	- anti-
Notarial Seal Joseph Carfrey, Notary Public Warrington Twp., Bucks County My Commission Expires May 15, 2016 MEMBER, PENNBYLVANIA ASSOCIATION OF NOTARIES	Notary Public
Executed this day of	, 20
Rubina G. Parmar	
ACKNOWLEDGEMENT	
of	_)
County of	) s.s.: )
known, and known by me to be the same perso	, 20, personally appeared before me <u><b>Rubina G. Parmar</b></u> to me on described in and who executed the foregoing instrument, and e, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

Executed this \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_.

Lu Tian

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ACKNOWLEDGEMENT nnonuralle s.s.: County of

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, personally appeared before me <u>Lu Tian</u> 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

9 day of October Executed this Rubina G. Parmar

ACKNOWLEDGEMENT Danie zonu ) s.s.: LOLTOner County of

On this <u>4</u> day of <u>10 CPUb</u>, 20<u>13</u> personally appeared before me <u>Rubina G. Parmar</u> 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)

Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Page 6 of 9 Computer Generated Template "Assignment-Merck Sharp & Dohme, Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

Attorney Docket No.: 23228

Worldwide Assignment

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) ctbbs Executed this  $\underline{\mathscr{A}}$ , 20 / 二 day of Anthony W. Shaw

ACKNOWLEDGEMENT Moniika N of Plan uano ) s.s.: County of buterier

On this <u>4</u> day of <u>4</u>, 20<u>1</u>, 20<u>1</u>, 20<u>1</u>, personally appeared before me <u>Anthony W. Shaw</u> 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.



Notary Public

COMMONWEALTH OF PENNSYLVANIA Notarial Seel Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Executed this 2 day of October, 2013

Wang Werm Weimin Wang

ACKNOWLEDGEMENT Connonwea \_\_\_of <u>Yenn</u> Warra ) s.s.: County of Nortener

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m el}$ (Seal)  $(0,0)^{i_{DI}}$ 

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Notarlel Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

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 $x = \frac{1}{p} \sum_{i=1}^{n-1} e_i$ 

~ Riber . 20 13 Executed this day of Rachel Anne Storr

ACKNOWLEDGEMENT

Connonwealte of Vennsylvania )s.s.: County of /OR Henelle

On this 4 day of 32/26, 20/3, personally appeared before me <u>Rachel Anne Storr</u> 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.

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LVANIA COMMONWEALPHINE PER

Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

10 the day of ( 20/2 Executed this

and Marina Busuek

ACKNOWLEDGEMENT

bringuela Vanie ) s.s.: County of\_

On this <u>1</u> day of <u>UCVUD</u>, 20<u>1</u>B personally appeared before me <u>Marina Busuek</u> 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.



COMMONWEALTRUGH PENNSYLVANIA Notarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Attorney Docket No.: 23228

Worldwide Assignment

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13 the Executed this 10 day of Robert A. Kowtoniuk

ACKNOWLEDGEMENT

Wane Condentical ) s.s.: County of Kend

On this <u>16</u> day of <u>6</u> <u>(16)</u> day of <u>16</u> <u>b</u> <u>b</u> <u>b</u>, 20<u>13</u> personally appeared before me <u>Robert A. Kowtoniuk</u> 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.

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Notary Put

COMMONWEALTH OF PENNSYLVANIA Notarial Seel Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

## RECORDED: 10/20/2016