505921092 02/18/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRIAN ALLEN CARR	04/19/2013
VASANT R. JADHAV	04/19/2013
DENISE M. KENSKI	04/18/2013
DAVID M. TELLERS	04/19/2013
AARRON T. WILLINGHAM	04/17/2013

RECEIVING PARTY DATA

Name:	MERCK SHARP & DOHME CORP.
Street Address:	126 EAST LINCOLN AVENUE
City:	RAHWAY
State/Country:	NEW JERSEY
Postal Code:	08889

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15684902

CORRESPONDENCE DATA

Fax Number: (617)395-7070

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.

Phone: (617) 395-7003

Email: HRKPatents@LALaw.com

Correspondent Name: LANDO & ANASTASI, LLP

Address Line 1: RIVERFRONT OFFICE PARK

Address Line 2: ONE MAIN STREET, SUITE 1100

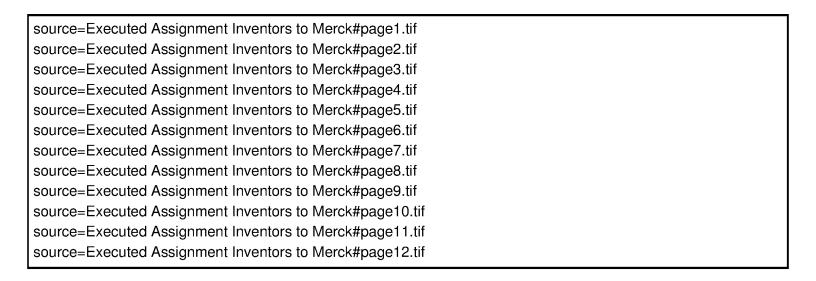
Address Line 4: CAMBRIDGE, MASSACHUSETTS 02142

ATTORNEY DOCKET NUMBER:	A2038-721120
NAME OF SUBMITTER:	HANNAH R. KOYFMAN
SIGNATURE:	/Hannah R. Koyfman/
DATE SIGNED:	02/18/2020
	•

Total Attachments: 12

PATENT REEL: 051844 FRAME: 0342

505921092



PATENT REEL: 051844 FRAME: 0343

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE.

- (1) Brian Allen Carr, located at Norristown, PA 19403,
- (2) Vasant R. Jadhav, located at Harleysville, PA 19438,
- (3) Denise M. Kenski, located at San Francisco, CA 94131,
- (4) David M. Tellers, located at Lansdale, PA 19446,
- (5) Aarron T. Willingham, located at Mountain View, CA 94040,

(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:

SHORT INTERFERING NUCLEIC ACID (siNA) COMPOSITIONS

and/or in the following application(s):

U.S. Provisional Application No. 61/641,62	26 filed on May 2, 2012;	
U.S. Application No.	having a filing date of	; and
PCT International Application No.	having a filing da	ate of

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

Executed this 19 day of April ,	2013.
BAC -	
Brian Allen Carr	-
ACKNOWLEDGEMENT	
State of Pennsylvania) s.s.:
County of Montgomery) 5.5
On this 19 day of and known by me to be the same person(s) de that he (she) executed the same, of his (her) or	, 2013, personally appeared before me Brian Allen Carr, t o me known, scribed in and who executed the foregoing instrument, and acknowledged
	with thee with for the purpose serioral.
(Seal)	Marjorie M. Blane St.
	COMMONWEALTH OF PENNSYLVANIA
1	Notarial Seal
Executed this 19 day of,	2013. Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES
Vasant R. Jadhav	-
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)) 5.5
On this day of	, 2013, personally appeared before me Vasant R. Jadhav, to me known, scribed in and who executed the foregoing instrument, and acknowledged wn free will for the purpose set forth.
(Seal)	Mayai M Blonett Notary Public
The Committee of the Co	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	<u>,</u> 2013.
Denise M. Kenski	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)	, 5.5
On this day of and known by me to be the same person(s) d that he (she) executed the same, of his (her)	, 2013, personally appeared before me Denise M. Kenski , to me known, lescribed in and who executed the foregoing instrument, and acknowledged own free will for the purpose set forth.
(Seal)	
	Notary Public
Executed this 19 day of	_ , 2013.
ACKNOWLEDGEMENT	
State of Pennsylvania	}
County of Montgomery On this 19 day of and known by me to be the same person(s) of that he (she) executed the same, of his (her)) s.s.: , 2013, personally appeared before me David M. Tellers, to me known, lescribed in and who executed the foregoing instrument, and acknowledged own free will for the purpose set forth.
(Seal)	Notary Publicarial Seal Marjorie M. Bennett, Notary Public Upper Gwynedd Twp., Montgomery County My Commission Expires Jan. 24, 2015 MEMBER, PENNBYLVANIZA ASSOCIATION OF NOTARIES

Executed this day of	_ , 2013.
Aarron T. Willingham	
ACKNOWLEDGEMENT	
State of California)
County of) s.s.:)
known, and known by me to be the same per	, 2013, personally appeared before me Aarron T. Willingham, t o merson(s) described in and who executed the foregoing instrument, and me, of his (her) own free will for the purpose set forth.
(Seal)	
	Notary Public

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

(1) Brian Allen Carr, located at Norristown, PA 19403,

(2) Vasant R. Jadhav, located at Harleysville, PA 19438,

(3) Denise M. Kenski, located at San Francisco, CA 94131,

(4) David M. Tellers, located at Lansdale, PA 19446,

(5) Aarron T. Willingham, located at Mountain View, CA 94040,

(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:

SHORT INTERFERING NUCLEIC ACID (siNA) COMPOSITIONS

and/or in the following application(s):

U.S. Provisional Application No. 61/641,62	26 filed on May 2, 2012;	
U.S. Application No.	having a filing date of	; and
PCT International Application No.	having a filing	date of

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 day of	, 2013.
Brian Allen Carr	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)) 5.5
On this day of and known by me to be the same person(s) that he (she) executed the same, of his (he	, 2013, personally appeared before me Brian Allen Carr, t o me known, described in and who executed the foregoing instrument, and acknowledged r) own free will for the purpose set forth.
(Seal)	
	Notary Public
Executed this day of	, 2013.
Vasant R. Jadhav	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)	, 5.5
On this day of and known by me to be the same person(s) that he (she) executed the same, of his (he	, 2013, personally appeared before me Vasant R. Jadhav, to me known, described in and who executed the foregoing instrument, and acknowledged or) own free will for the purpose set forth.
(Seal)	
	Notary Public

Executed this 18 day of 1901.
Donalleri
Denise M. Kenski
ACKNOWLEDGEMENT
State of Renneylvania California) County of Mentgomery San Francise s.s.:
County of Mentgomery SAN Francises.
On this 10 day of April , 2013, personally appeared before me Denise M. Kenski , to me known, and known by me to be the same person(s) 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) TRISH CASEY Comm. #1993069 Notary Public California D Notary Public California D Notary Public San Mateo County Comm. Expires October 20, 2016
TRISH CASEY Comm. #1993069 Notary Public California 5 San Mateo County Comm. Expires October 20, 2016
David M. Tellers
ACKNOWLEDGEMENT
State of Pennsylvania)) s.s.:
County of Montgomery)
On this day of, 2013, personally appeared before me David M. Tellers, to me known, and known by me to be the same person(s) 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	, 2013.
Aarron T. Willingham	
ACKNOWLEDGEMENT	
State of California)
County of) s.s.:)
known, and known by me to be the same r	, 2013, personally appeared before me Aarron T. Willingham , to me person(s) described in and who executed the foregoing instrument, and same, of his (her) own free will for the purpose set forth.
(Seal)	
	Notary Public

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE.

(1) Brian Allen Carr,

located at Norristown, PA 19403,

(2) Vasant R. Jadhav,

located at Harleysville, PA 19438, located at San Francisco, CA 94131,

(3) Denise M. Kenski, (4) David M. Tellers,

located at Lansdale, PA 19446.

(5) Aarron T. Willingham,

located at Mountain View, CA 94040,

(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:

SHORT INTERFERING NUCLEIC ACID (siNA) COMPOSITIONS

and/or in the following application(s):

U.S. Provisional Application No. 61/9	641,626 filed on May 2, 2012;	
U.S. Application No.	having a filing date of	; and
PCT International Application No.	having a filing date	e of

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 day of	, 2013.
Brian Allen Carr	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)	,
On this day of and known by me to be the same person(s that he (she) executed the same, of his (he	, 2013, personally appeared before me Brian Allen Carr, t o me known, s) described in and who executed the foregoing instrument, and acknowledged er) own free will for the purpose set forth.
(Seal)	
	Notary Public
Executed this day of	, 2013.
Vasant R. Jadhav	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)	
On this day of and known by me to be the same person(s that he (she) executed the same, of his (he	, 2013, personally appeared before me Vasant R. Jadhav, to me known, s) described in and who executed the foregoing instrument, and acknowledged er) own free will for the purpose set forth.
(Seal)	
	Notary Public

Executed this day of	_ , 2013.
	<u> </u>
Denise M. Kenski	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)	
On this day of and known by me to be the same person(s) that he (she) executed the same, of his (her	, 2013, personally appeared before me Denise M. Kenski, to me known, described in and who executed the foregoing instrument, and acknowledged own free will for the purpose set forth.
(Seal)	
	Notary Public
Executed this day of	, 2013.
David M. Tellers	
ACKNOWLEDGEMENT	
State of Pennsylvania)) s.s.:
County of Montgomery)) 0.0
On this day of and known by me to be the same person(s) that he (she) executed the same, of his (her	, 2013, personally appeared before me David M. Tellers , to me known, described in and who executed the foregoing instrument, and acknowledged) own free will for the purpose set forth.
(Seal)	
	Notary Public

Executed this 17 day of 4000 , 2013

Aarron T. Willingham

ACKNOWLEDGEMENT

State of California

County of SMuta (1)

) s.s.:

On this 17 day of 140 day, 2013, personally appeared before me Aarron T. Willingham, to me known, and known by me to be the same person(s) 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)

BARBARA JEAN SOTO
Commission # 1934380
Notary Public - California
Santa Clara County
My Comm. Expires Apr 30, 2015

Notary Public