

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6064634

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
ANTONG CHEN	06/03/2019
DONGQING ZHANG	06/15/2019
ILKNUR ICKE	06/18/2019
BELMA DOGDAS	06/08/2019
SARAYU PARIMAL	04/15/2020

**RECEIVING PARTY DATA**

<b>Name:</b>	MERCK SHARP & DOHME, CORP.
<b>Street Address:</b>	126 E. LINCOLN AVE.
<b>City:</b>	RAHWAY
<b>State/Country:</b>	NEW JERSEY
<b>Postal Code:</b>	07065
<b>Name:</b>	MSD INTERNATIONAL GMBH
<b>Street Address:</b>	GALAXIS, 1 FUSIONOPOLIS PL
<b>City:</b>	SINGAPORE
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	138522

**PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16427171

**CORRESPONDENCE DATA**

Fax Number: (650)938-5200

*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: 6503357106

Email: cdiez@fenwick.com

Correspondent Name: SHIRA BERGMAN

Address Line 1: FENWICK &amp; WEST LLP

Address Line 2: 801 CALIFORNIA STREET

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

<b>ATTORNEY DOCKET NUMBER:</b>	34187-42104/US
<b>NAME OF SUBMITTER:</b>	SHIRA BERGMAN, REG. NO. 78,653
<b>SIGNATURE:</b>	/Shira Bergman/
<b>DATE SIGNED:</b>	04/16/2020
<b>Total Attachments: 6</b> source=42104_Assignment#page1.tif source=42104_Assignment#page2.tif source=42104_Assignment#page3.tif source=42104_Assignment#page4.tif source=42104_Assignment#page5.tif source=42104_Assignment#page6.tif	

**WORLDWIDE ASSIGNMENT**

WHEREAS, I/WE,

- (1) Antong **CHEN**, located at Blue Bell, Pennsylvania,
- (2) Dongqing **ZHANG**, located at Nashville, Tennessee,
- (3) Ilknur **ICKE**, located at Attleboro, Massachusetts,
- (4) Belma **DOGDAS**, located at Ridgewood, New Jersey,
- (5) Sarayu **PARIMAL**, located at Singapore, Singapore,

(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:

**MULTI-LEVEL CONVOLUTIONAL LSTM MODEL FOR THE SEGMENTATION OF MR IMAGES**

and in the following application(s):

U.S. Application No. **16/427,171** having a filing date of **May 30, 2019**; and

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 New Jersey, having an office at **126 East Lincoln Ave., Rahway, New Jersey 07065** and **MSD International GMBH**, a corporation organized under the laws of Singapore, having an office at **Galaxis, 1 Fusionopolis PI, Singapore 138522**, 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.

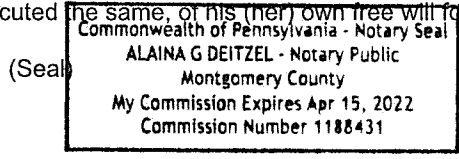
Executed this 3 day of June, 2019.

[Signature]  
Antong CHEN

**ACKNOWLEDGEMENT**

State Pennsylvania of Pennsylvania)  
County of Montgomery) s.s.:

On this 3<sup>rd</sup> day of June, 2019, personally appeared before me Antong Chen [Signature] / AC 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.



[Signature]  
Notary Public

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

\_\_\_\_\_  
Dongqing ZHANG

**ACKNOWLEDGEMENT**

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

On this \_\_\_ day of \_\_\_\_\_, 20\_\_, personally appeared before me \_\_\_\_\_ 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\_\_\_\_.

\_\_\_\_\_  
Antong CHEN

**ACKNOWLEDGEMENT**

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

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_ 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 15<sup>th</sup> day of June, 2019

Dongqing  
Dongqing ZHANG

**ACKNOWLEDGEMENT**

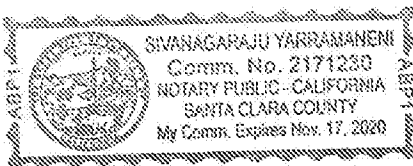
STATE of CALIFORNIA)  
County of SANTA CLARA) s.s.:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

On this 15 day of June, 2019, personally appeared before me \_\_\_\_\_ 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)

[Signature]  
Notary Public



Executed this 18<sup>th</sup> day of June, 2019.

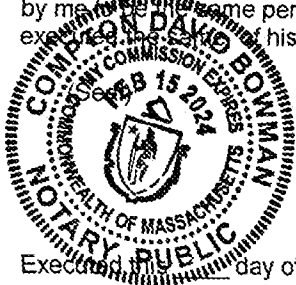
*[Handwritten Signature]*

Ilknur ICKE

**ACKNOWLEDGEMENT**

Commonwealth of Massachusetts )  
County of Suffolk ) s.s.:

On this 18<sup>th</sup> day of June, 2019, personally appeared before me \_\_\_\_\_ 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.



*[Handwritten Signature]*  
\_\_\_\_\_  
Notary Public

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

Belma DOGDAS

**ACKNOWLEDGEMENT**

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

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_ 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\_\_\_\_.

\_\_\_\_\_  
Iiknur ICKE

**ACKNOWLEDGEMENT**

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

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_ 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 8<sup>th</sup> day of June, 2019.

Belma DOGDAS  
Belma DOGDAS

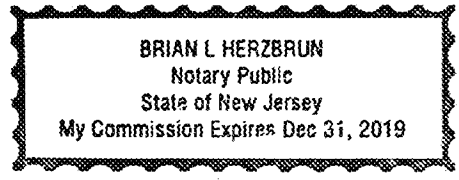
**ACKNOWLEDGEMENT**

City of Ridgewood )  
County of Bergen ) s.s.:

On this 8<sup>th</sup> day of June, 2019, personally appeared before me \_\_\_\_\_ 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)

Brian L. Herzbrun  
Notary Public



Executed this 15 day of April, 2020.

*Sarayu Parimal*

\_\_\_\_\_  
Sarayu PARIMAL

**ACKNOWLEDGEMENT**

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

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_ 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