

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2812403

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ANDREW ANTONY CALABRESE	04/08/2014
BRANDON JEFFY	04/02/2014
DALE ROBINSON	04/02/2014
DAN ZHU	03/27/2014
DEHUA HUANG	03/27/2014
JAN ELSNER	04/02/2014
JOHN BOYLAN	04/02/2014
LIDA TEHRANI	04/01/2014
MARK A. NAGY	03/28/2014
RAJ KUMAR RAHEJA	03/28/2014
PAUL ERDMAN	04/02/2014
RAMA K. NARLA	04/02/2014
ROY L. HARRIS	04/02/2014
TAM MINH TRAN	04/02/2014
JENNIFER RIGGS	04/02/2014
YUHONG NING	04/02/2014
SHUICHAN XU	03/27/2014
RECEIVING PARTY DATA	
Name:	Signal Pharmaceuticals LLC
Street Address:	10300 Campus Point Drive
Internal Address:	Suite 100
City:	San Diego
State/Country:	CALIFORNIA
Postal Code:	92121
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14155485
CORRESPONDENCE DATA	
Fax Number:	(404)581-8330
PATENT	

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

Phone: (404) 581-8614
Email: mjbruner@jonesday.com
Correspondent Name: MICHAEL J. BRUNER
Address Line 1: 1420 PEACHTREE STREET, NE
Address Line 2: SUITE 800
Address Line 4: ATLANTA, GEORGIA 30309

ATTORNEY DOCKET NUMBER:	10624-310-999
NAME OF SUBMITTER:	MICHAEL J. BRUNER
SIGNATURE:	/Michael J. Bruner/
DATE SIGNED:	04/14/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 20

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DECLARATION AND ASSIGNMENT

WHEREAS, WE, ANDREW ANTONY CALABRESE, citizen of the United Kingdom, having a mailing address of 563 Seeforever Dr., San Diego, California, 92078, the United States of America residing at San Diego, California, the United States of America; BRANDON JEFFY, citizen of the United States of America, having a mailing address of 13043 Alora Point, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; DALE ROBINSON, citizen of the United States of America, having a mailing address of 7772 Corte Promenade, Carlsbad, California, 92009, the United States of America residing at Carlsbad, California, the United States of America; DAN ZHU, citizen of the United States of America, having a mailing address of 4432 Calle Mar De Armonia, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; DEHUA HUANG, citizen of the United States of America, having a mailing address of 4505 Shorepointe Way, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; JAN ELSNER, citizen of the United States of America, having a mailing address of 7597 Charmant Dr. # 902, San Diego, California, 92122, the United States of America residing at San Diego, California, the United States of America; JOHN BOYLAN, citizen of the United States of America, having a mailing address of 4 Desiree Ct., Bedminster, New Jersey, 07921, the United States of America residing at Bedminster, New Jersey, the United States of America; LIDA TEHRANI, citizen of the United States of America, having a mailing address of 11471 Caminito Garcia, San Diego, California, 92131, the United States of America residing at San Diego, California, the United States of America; MARK A. NAGY, citizen of the United States of America, having a mailing address of 2123 Sea Village Circle, Carlsbad, California, 92007, the United States of America residing at Carlsbad, California, the United States of America; RAJ KUMAR RAHEJA, citizen of the United States of America, having a mailing address of 12739 Beeler Creek Trail, Poway, California, 92064, the United States of America residing at Poway, California, the United States of America; PAUL ERDMAN, citizen of the United States of America, having a mailing address of 8570 Ivory Coast Drive, San Diego, California, 92126, the United States of America residing at San Diego, California, the United States of America; RAMA K. NARLA, citizen of the United States of America, having a mailing address of 5157 Great Meadow Drive, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; ROY L. HARRIS, citizen of the United States of America, having a mailing address of 1075 Chalcedony St. Apt. A, San Diego, California, 92109, the United States of America residing at San Diego, California, the United States of America; TAM MINH TRAN, citizen of the United States of America, having a mailing address of 8953 Libra Dr., San Diego, California, 92126, the United States of America residing at San Diego, California, the United States of America; JENNIFER RIGGS, citizen of the United States of America, having a mailing address of 2136 Wales Dr., Cardiff, California, 92007, the United States of America residing at Cardiff, California, the United States of America; YUHONG NING, citizen of the United States of America, having a mailing address of 5157 Great Meadow Drive, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; and SHUICHAN XU, citizen of the United States of America, having a mailing address of 9650 Deer Trail Place, San Diego, California, 92127, the United States of America residing at San Diego, California, the United States of America, ASSIGNORS, are the inventors of the invention in SUBSTITUTED PYRROLOPYRIMIDINE COMPOUNDS, COMPOSITIONS THEREOF, AND METHODS OF TREATMENT THEREWITH, for which an application for a patent of the United States has been filed,

☒ which is identified by Jones Day docket no. 10624-310-999

☒ which was filed on January 15, 2014, Application No. 14/155,485

☐ We hereby authorize and request attorney(s) at Jones Day, to insert here in parentheses (Application number _____, filed _____) the filing date and application number of said application when known.

As above-named inventors, each of us hereby declares that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT international number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe I am an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization to Permit Access to Application by Participating Office

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified application.

U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

In accordance with 37 CFR 1.14(e), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

and WHEREAS, SIGNAL PHARMACEUTICALS LLC, a corporation organized and existing under the laws of the state of California, and having an office for the transaction of business at 10300 Campus Point Drive, Suite 100, San Diego, California, 92121, the United States of America, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement;

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date _____, 2014

ANDREW ANTONY CALABRESE

L.S.

Date 4/2, 2014

BRANDON JEFFY

L.S.

Date 4/2, 2014

DALE ROBINSON

L.S.

Date 3/27/, 2014

DAN ZHU

L.S.

Date 03/27/2014, 2014

DEHUA HUANG


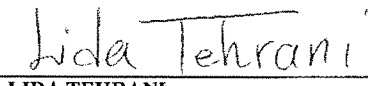
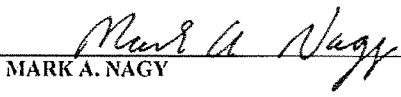
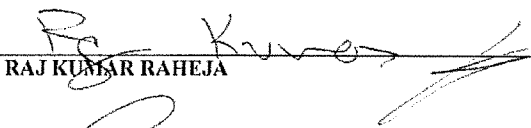

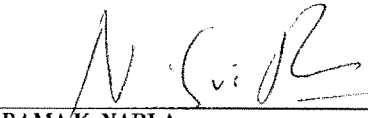
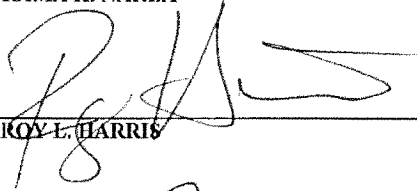

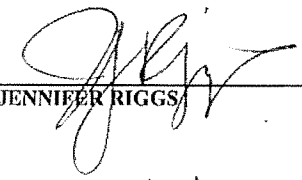
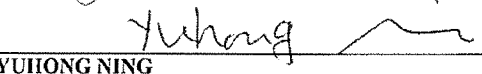
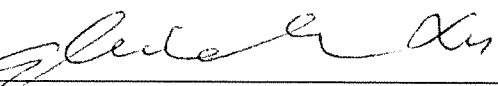
L.S.

Date 4/2, 2014

JAN ELSNER

L.S.

U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

Date <u>4/2/14</u> , 2014	<u></u> JOHN BOYLAN	L.S.
Date <u>04/01/2014</u> , 2014	<u></u> LIDA TEHRANI	L.S.
Date <u>3/28</u> , 2014	<u></u> MARK A. NAGY	L.S.
Date <u>3/28</u> , 2014	<u></u> RAJ KUMAR RAHEJA	L.S.
Date <u>4/2/2014</u> , 2014	<u></u> PAUL ERDMAN	L.S.
Date <u>4/2/2014</u> , 2014	<u></u> RAMA K. NARLA	L.S.
Date <u>4/2/2014</u> , 2014	<u></u> ROY L. HARRIS	L.S.
Date <u>04/02/14</u> , 2014	<u></u> TAM MINH TRAN	L.S.
Date <u>4/2/14</u> , 2014	<u></u> JENNIFER RIGGS	L.S.
Date <u>4/2/14</u> , 2014	<u></u> YUHONG NING	L.S.
Date <u>March 27</u> , 2014	<u></u> SHUICHAN XU	L.S.

STATE OF CALIFORNIA)

COUNTY OF)

On _____ before me, _____, Notary Public, personally appeared ANDREW ANTONY CALABRESE, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

STATE OF CALIFORNIA)

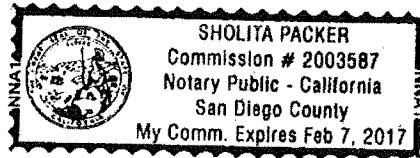
COUNTY OF San Diego)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared BRANDON JEFFY, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



STATE OF CALIFORNIA)

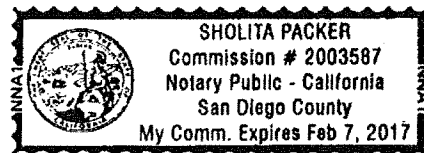
COUNTY OF San Diego)

On April 1, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared DALE ROBINSON, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



STATE OF CALIFORNIA)

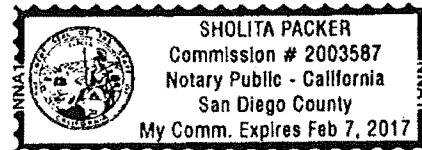
COUNTY OF San Diego)

On MARCH 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared DAN ZHU, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

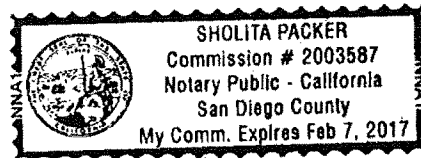
COUNTY OF San Diego)

On MARCH 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared DEHUA HUANG, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

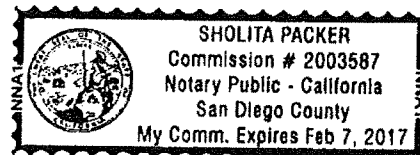
COUNTY OF San Diego)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JAN ELSNER, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)

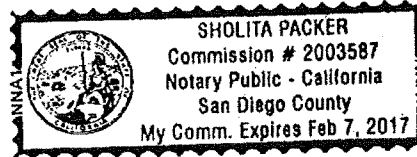


STATE OF CALIFORNIA)
) SS.:
COUNTY OF SAN DIEGO)

On APRIL 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JOHN BOYLAN, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Signature Sholita Packer (Seal)



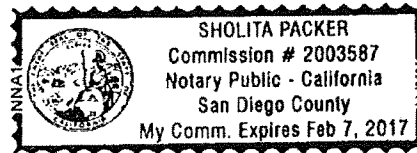
STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)

On APRIL 1, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared LIDA TEHRANI, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



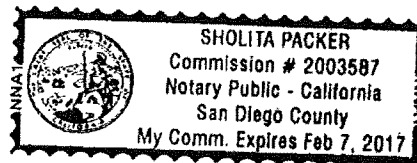
STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)

On MARCH 28, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared MARK A. NAGY, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



STATE OF CALIFORNIA)

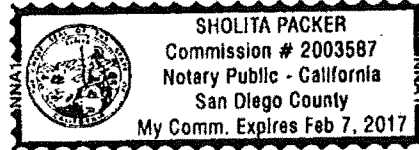
COUNTY OF SAN DIEGO)

On MARCH 28, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared RAJ KUMAR RAHEJA, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Sholita Packer* (Seal)



STATE OF CALIFORNIA)

COUNTY OF SAN DIEGO)

On APRIL 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared PAUL ERDMAN, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Sholita Packer* (Seal)



STATE OF CALIFORNIA)

COUNTY OF)

SAN DIEGO

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared RAMA K. NARLA, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

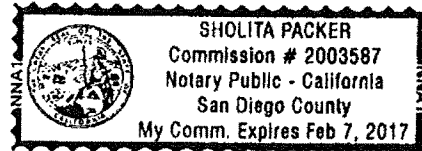
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

COUNTY OF)

SAN DIEGO

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared ROY L. HARRIS, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

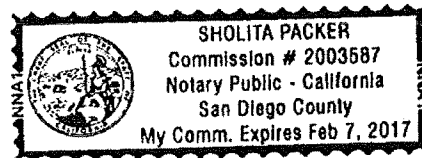
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

COUNTY OF)

SAN DIEGO

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared TAM MINH TRAN, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

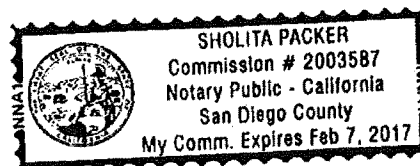
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

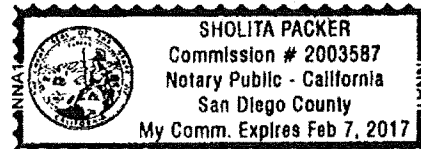
COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JENNIFER RIGGS, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

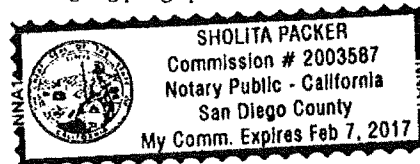
COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared YUHONG NING, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

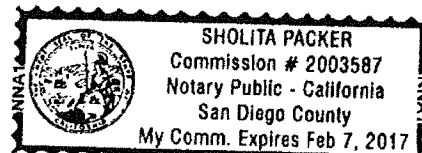
COUNTY OF SAN DIEGO)

On March 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared SHUICHAN XU, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

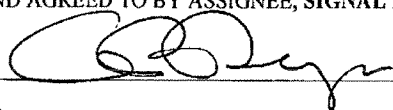
Signature [Signature] (Seal)



U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

ACCEPTED AND AGREED TO BY ASSIGNEE, SIGNAL PHARMACEUTICALS LLC:

Signature



Date:

4/11/14

Printed name

GREG REYES

Title

SR. VP Drug Discovery

DECLARATION AND ASSIGNMENT

WHEREAS, WE, ANDREW ANTONY CALABRESE, citizen of the United Kingdom, having a mailing address of 563 Seeforever Dr., San Diego, California, 92078, the United States of America residing at San Diego, California, the United States of America; BRANDON JEFFY, citizen of the United States of America, having a mailing address of 13043 Alora Point, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; DALE ROBINSON, citizen of the United States of America, having a mailing address of 7772 Corte Promenade, Carlsbad, California, 92009, the United States of America residing at Carlsbad, California, the United States of America; DAN ZHU, citizen of the United States of America, having a mailing address of 4432 Calle Mar De Armonia, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; DEHUA HUANG, citizen of the United States of America, having a mailing address of 4505 Shorepointe Way, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; JAN ELSNER, citizen of the United States of America, having a mailing address of 7597 Charmant Dr. # 902, San Diego, California, 92122, the United States of America residing at San Diego, California, the United States of America; JOHN BOYLAN, citizen of the United States of America, having a mailing address of 4 Desiree Ct., Bedminster, New Jersey, 07921, the United States of America residing at Bedminster, New Jersey, the United States of America; LIDA TEHRANI, citizen of the United States of America, having a mailing address of 11471 Caminito Garcia, San Diego, California, 92131, the United States of America residing at San Diego, California, the United States of America; MARK A. NAGY, citizen of the United States of America, having a mailing address of 2123 Sea Village Circle, Carlsbad, California, 92007, the United States of America residing at Carlsbad, California, the United States of America; RAJ KUMAR RAHEJA, citizen of the United States of America, having a mailing address of 12739 Beeler Creek Trail, Poway, California, 92064, the United States of America residing at Poway, California, the United States of America; PAUL ERDMAN, citizen of the United States of America, having a mailing address of 8570 Ivory Coast Drive, San Diego, California, 92126, the United States of America residing at San Diego, California, the United States of America; RAMA K. NARLA, citizen of the United States of America, having a mailing address of 5157 Great Meadow Drive, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; ROY L. HARRIS, citizen of the United States of America, having a mailing address of 1075 Chalcedony St. Apt. A, San Diego, California, 92109, the United States of America residing at San Diego, California, the United States of America; TAM MINH TRAN, citizen of the United States of America, having a mailing address of 8953 Libra Dr., San Diego, California, 92126, the United States of America residing at San Diego, California, the United States of America; JENNIFER RIGGS, citizen of the United States of America, having a mailing address of 2136 Wales Dr., Cardiff, California, 92007, the United States of America residing at Cardiff, California, the United States of America; YUHONG NING, citizen of the United States of America, having a mailing address of 5157 Great Meadow Drive, San Diego, California, 92130, the United States of America residing at San Diego, California, the United States of America; and SHUICHAN XU, citizen of the United States of America, having a mailing address of 9650 Deer Trail Place, San Diego, California, 92127, the United States of America residing at San Diego, California, the United States of America, ASSIGNORS, are the inventors of the invention in SUBSTITUTED PYRROLOPYRIMIDINE COMPOUNDS, COMPOSITIONS THEREOF, AND METHODS OF TREATMENT THEREWITH, for which an application for a patent of the United States has been filed,

☒ which is identified by Jones Day docket no. 10624-310-999

☒ which was filed on January 15, 2014, Application No. 14/155,485

☐ We hereby authorize and request attorney(s) at Jones Day, to insert here in parentheses (Application number _____, filed _____) the filing date and application number of said application when known.

As above-named inventors, each of us hereby declares that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT international number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe I am an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization to Permit Access to Application by Participating Office

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified application.

U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

and WHEREAS, SIGNAL PHARMACEUTICALS LLC, a corporation organized and existing under the laws of the state of California, and having an office for the transaction of business at 10300 Campus Point Drive, Suite 100, San Diego, California, 92121, the United States of America, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement;

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 4/8, 2014  L.S.
ANDREW ANTONY CALABRESE

Date _____, 2014 _____ L.S.
BRANDON JEFFY

Date _____, 2014 _____ L.S.
DALE ROBINSON

Date _____, 2014 _____ L.S.
DAN ZHU

Date _____, 2014 _____ L.S.
DEHUA HUANG

Date _____, 2014 _____ L.S.
JAN ELSNER


U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

Date 4/2/14, 2014  L.S.
JOHN BOYLAN

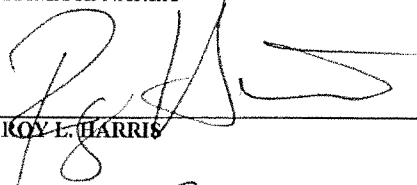
Date 04/01/2014, 2014  L.S.
LIDA TEHRANI

Date 3/28, 2014  L.S.
MARK A. NAGY

Date 3/28, 2014  L.S.
RAJ KUMAR RAHEJA

Date 4/2/2014, 2014  L.S.
PAUL ERDMAN

Date 4/2/2014, 2014  L.S.
RAMA K. NARLA

Date 4/2/2014, 2014  L.S.
ROY L. HARRIS

Date 04/02/14, 2014  L.S.
TAM MINH TRAN

Date 4/2/14, 2014  L.S.
JENNIFER RIGGS

Date 4/2/14, 2014  L.S.
YUHONG NING

Date March 27, 2014  L.S.
SHUICHAN XU

U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

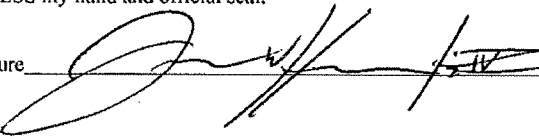
STATE OF ~~CALIFORNIA~~ Maryland)

COUNTY OF Baltimore)

On 4-8-14 before me, James W. Houck IV ~~Andrew Calabrese~~, Notary Public, personally appeared ANDREW ANTONY CALABRESE, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature  (Seal)

JAMES WILLIAM HOUCK, IV
NOTARY PUBLIC - MARYLAND
BALTIMORE COUNTY
My commission expires September 27, 2017

STATE OF CALIFORNIA)

COUNTY OF)

On _____ before me, _____, Notary Public, personally appeared BRANDON JEFFY, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

STATE OF CALIFORNIA)

COUNTY OF)

On _____ before me, _____, Notary Public, personally appeared DALE ROBINSON, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

STATE OF CALIFORNIA)

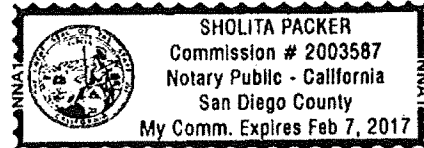
COUNTY OF San Diego)

On MARCH 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared DAN ZHU, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

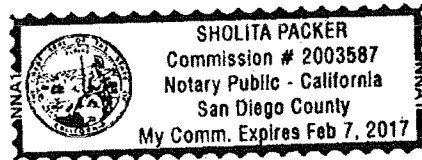
COUNTY OF San Diego)

On MARCH 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared DEHUA HUANG, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

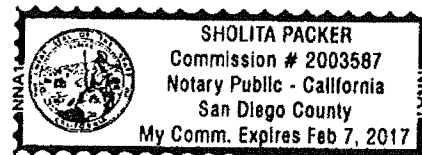
COUNTY OF San Diego)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JAN ELSNER, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)

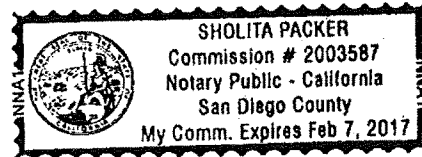


STATE OF CALIFORNIA)
) SS.:
COUNTY OF SAN DIEGO)

On APRIL 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JOHN BOYLAN, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Signature Sholita Packer (Seal)



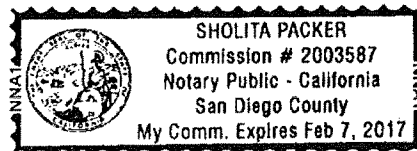
STATE OF CALIFORNIA)
)
COUNTY OF SAN DIEGO)

On APRIL 1, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared LIDA TEHRANI, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



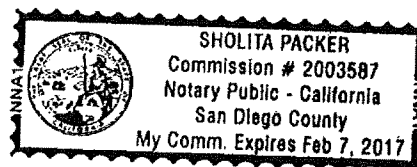
STATE OF CALIFORNIA)
)
COUNTY OF SAN DIEGO)

On MARCH 28, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared MARK A. NAGY, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Sholita Packer (Seal)



STATE OF CALIFORNIA)

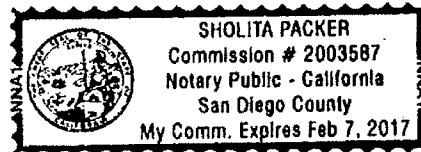
COUNTY OF SAN DIEGO)

On MARCH 28, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared RAJ KUMAR RAHEJA, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Sholita Packer* (Seal)



STATE OF CALIFORNIA)

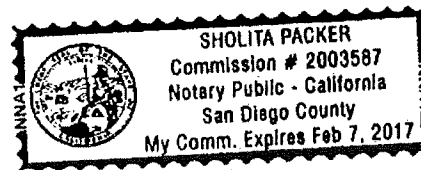
COUNTY OF SAN DIEGO)

On APRIL 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared PAUL ERDMAN, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Sholita Packer* (Seal)



STATE OF CALIFORNIA)

COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared RAMA K. NARLA, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

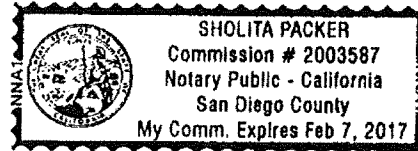
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared ROY L. HARRIS, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

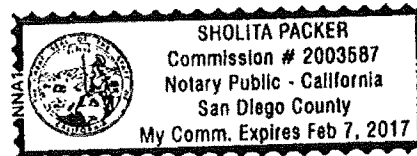
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared TAM MINH TRAN, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

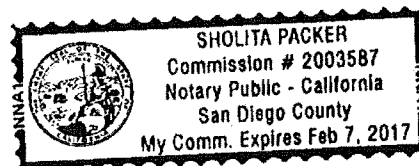
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Sholita Packer

(Seal)



STATE OF CALIFORNIA)

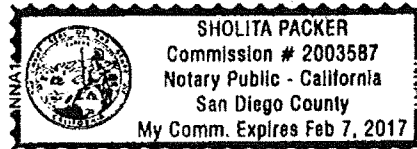
COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared JENNIFER RIGGS, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

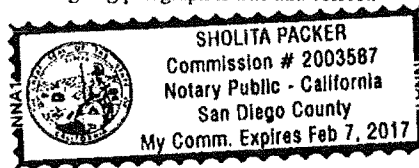
COUNTY OF SAN DIEGO)

On April 2, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared YUHONG NING, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature] (Seal)



STATE OF CALIFORNIA)

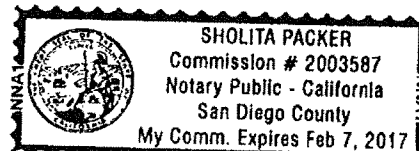
COUNTY OF SAN DIEGO)

On March 27, 2014 before me, SHOLITA PACKER, Notary Public, personally appeared SHUICHAN XU, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

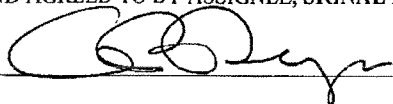
WITNESS my hand and official seal.

Signature [Signature] (Seal)



U.S. Patent Application No. 14/155,485; Jones Day docket no. 10624-310-999

ACCEPTED AND AGREED TO BY ASSIGNEE, SIGNAL PHARMACEUTICALS LLC:

Signature 

Date: 4/11/14

Printed name GREG REYES

Title SR. VP Drug Discovery