01/26/2015

Form PTO-1595 (Rev. 06:12) OMB No. 0651-0027 (Exp <04/30/2015)



U.S. DEPARTMENT OF COMMERCE hited States Patent and Trademark Office

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5th Floor S/12615 PATENT	SONLY
To the Director of the U.S. Patent and Trademark Office: Pleas	se record the attached documents or the new address(es) below.
1. Name of conveying party(ies)	Name and address of receiving party(ies) Name: The Scripps Research Institute
Ali Torkamani	Internal Address: 10550 North Torrey Pines Road, TPC-8
Additional name(s) of conveying party(ies) attached? 🔳 Yes 🗌 No	La Jolla, California 92037
3. Nature of conveyance/Execution Date(s): Execution Date(s) May 20, 2014	Street Address: 10550 North Torrey Pines Road
Assignment Merger Security Agreement Change of Name	City: La Jolla
Joint Research Agreement	State: California
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: USA Zip: 92037
Other	Additional name(s) & address(es) attached? Yes No
A. Patent Application No.(s) 14/200,520	B. Patent No.(s)
Additional numbers at 5. Name and address to whom correspondence	
concerning document should be mailed: Name: The Scripps Reserach	6. Total number of applications and patents involved: 1
Internal Address: 10550 North Torrey Pines Road, TPC-8	7. Total fee (37 CFR 1.21(h) & 3.41) \$\frac{40.00}{}
Street Address: 10550 North Torrey Pines Road, TPC-8	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)
City: La Jolla	8. Payment Information
State: California Zip: 92037	
Phone Number: 858-784-2937 Docket Number: TSRI 1507.6	Deposit Account Number 19-0962
Email Address:	Authorized USe/2N/ame_KNG/IYFN1_00020018_1703621 200526
9. Signature: Thomas title	January 20, 2015
Thomas Fitting Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:
	et) should be faxed to (571) 273-0140, or mailed to:

PATENT REEL: 034837 FRAME: 0048 Recordation Form Cover Sheet U.S. Patent Application Serial No. 14/200,520 Page -2-

Continuation of information in Item 1:

Nicholas Schork

Continuation of information in Item 3:

Execution Date(s):

Nicholas Schork January 15, 2015

PATENT REEL: 034837 FRAME: 0049

VINSBUR PONISANO/BNARS PRIARMANTED FOR SCOT BOUGH, and

In Consideration of One Dollar and other good and valuable considerations, the receipt of which is hereby acknowledged, the entire right, title and interest in the invention or improvements of the undersigned in SYSTEMS AND METHODS FOR GENOMIC ANNOTATION AND DISTRIBUTED VARIANT INTERPRETATION and in the application for Letters Patent of the United States therefor, and in any reissue or extension of any letters Patent that may be granted upon said application are hereby assigned by the undersigned to THE SCRIPPS RESEARCH INSTITUTE, a public benefit, not-for-profit corporation of California, located at 10550 North Torrey Pines Road, La Jolla, USA 92037, and the heirs, successors, legal representatives and assigns of THE SCRIPPS RESEARCH INSTITUTE (herein collectively called said Assignee), and the Commissioner of Patents and Trademarks is hereby authorized and requested by the undersigned to issue said Letters Patent to said Assignee.

requested by the undersigned to issue said Letters Patent to said Assignee.

For said considerations it is hereby agreed by the undersigned, upon the request of said Assignee, to execute any necessary and proper oaths or affidavits relating to said application or required for the filing or prosecution of any divisional or continuing application thereof or for the filing or prosecution of any application for the reissue or extension of any Letters Patent that may be granted on said invention or improvements that said Assignee may deem necessary or expedient, and for said considerations it is further agreed by the undersigned, upon request of said Assignee, in the event of said application or any division thereof, or Letters Patent issued thereon, or any reissue or application for the reissue thereof, becomes involved in Interference, to cooperate to the best of the ability of the undersigned with said Assignee in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, and further to perform, on such request, any and all affirmative acts to obtain said Letters Patent and vest all rights therein hereby conveyed in said Assignee as fully and entirely as the same would have been held and enjoyed by the undersigned if this Assignment and sale had not been made. And for said considerations the entire right, title and interest in said invention or improvements, including all priority rights, and the right to claim priority rights and the privileges and benefits thereof, including those under the International Convention, and all other Conventions, and the right to improvements in each and every country of the world are hereby assigned and granted by the undersigned to said Assignee. It is further agreed by the undersigned upon the undersigned to be executed in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents hat shall be required of the undersigned to be exe

State of	
County of) ss
On, pers	sonally appeared
same in his/her/their a	who proved to its factory evidence to be the person(s) whose name(s) is/ar in instrument and acknowledged to me that he/she/they executed the suthorized capacity(ies), and that by his/her/their signature(s erson(s), or the entity upon behalf of which the person(s) acted to
I certify under P the foregoing paragrap	ENALTY OF PERJURY under the laws of the State of California that h is true and correct.
	WITNESS my hand and official seal.
	Notary Public
	Notary Public

PATENT REEL: 034837 FRAME: 0050 In Consideration of One Dollar and other good and valuable considerations, the receipt of which is hereby acknowledged, the entire right, title and interest in the invention or improvements of the undersigned in SYSTEMS AND METHODS FOR GENOMIC ANNOTATION AND DISTRIBUTED VARIANT INTERPRETATION and in the application for Letters Patent of the United States therefor, and in any reissue or extension of any letters Patent that may be granted upon said application are hereby assigned by the undersigned to THE SCRIPPS RESEARCH INSTITUTE, a public benefit, not-for-profit corporation of California, located at 10550 North Torrey Pines Road, La Jolla, USA 92037, and the heirs, successors, legal representatives and assigns of THE SCRIPPS RESEARCH INSTITUTE (herein collectively called said Assignee), and the Commissioner of Patents and Trademarks is hereby authorized and requested by the undersigned to issue said Letters Patent to said Assignee.

For said considerations it is hereby agreed by the undersigned, upon the request of said Assignee, to execute any necessary and proper oaths or affidavits relating to said application or required for the filing or prosecution of any divisional or continuing application thereof or for the filing or prosecution of any application for the reissue or extension of any Letters Patent that may be granted on said invention or improvements that said Assignee may deem necessary or expedient, and for said considerations it is further agreed by the undersigned, upon request of said Assignee, in the event of said application or any division thereof, or Letters Patent issued thereon, or any reissue or application for the reissue thereof, becomes involved in Interference, to cooperate to the best of the ability of the undersigned with said Assignee in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, and further to perform, on such request, any and all affirmative acts to obtain said Letters Patent and vest all rights therein hereby conveyed in said Assignee as fully and entirely as the same would have been held and enjoyed by the undersigned if this Assignment and sale had not been made. And for said considerations the entire right, title and interest in said invention or improvements, including all priority rights, and the right to claim priority rights and the privileges and benefits thereof, including those under the International Convention, and all other Conventions, and the right to file applications for patent in said Assignee's own name for said invention or improvements in each and every country of the world are hereby assigned and granted by the undersigned to said Assignee. It is further agreed by the undersigned, upon the request of said Assignee, to execute any and all documents that shall be required of the undersigned to be executed in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents necessary to invest title in said foreign applications and patents in said Assignee. The attorneys of record in said application for patent are hereby authorized and requested by the undersigned to insert in this Assignment the date and serial number thereof in the places provided therefor.

Ali Torkamani (Seal)

Nicholas Schork

State of <u>California</u>

County of <u>San Dieso</u>

ss

on May 20, 2014 before me, Wance L. Barker, Notary Public personally appeared Ali Torkamani, who pr

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.

NANCY L. BARKER
Commission # 2034331
Notary Public - California
San Diego County
My Comm. Expires Aug 16, 2017

Many & Ban Notary Public

> PATENT REEL: 034837 FRAME: 0051

RECORDED: 01/26/2015

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