

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4432141

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
XIAOHAI LIU	07/17/2012
GEOFFREY PAUL SMITH	08/06/2012
JONATHAN MARK BOUTELL	07/20/2012
THOMAS JOSEPH	08/22/2012
XIAOLIN WU	07/13/2012
RANDALL SMITH	08/06/2012
HELMY A. ELTOUKHY	08/16/2012
ROBERT C. KAIN	08/06/2012
BERNARD HIRSCHBEIN	08/02/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ILLUMINA, INC.
<b>Street Address:</b>	5200 ILLUMINA WAY
<b>City:</b>	SAN DIEGO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92122
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15207892
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(858)255-5104
<i>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.</i>	
<b>Phone:</b>	8582555104
<b>Email:</b>	ip@illumina.com
<b>Correspondent Name:</b>	ILLUMINA, INC.
<b>Address Line 1:</b>	5200 ILLUMINA WAY
<b>Address Line 4:</b>	SAN DIEGO, CALIFORNIA 92122
<b>ATTORNEY DOCKET NUMBER:</b>	IP-0538A-US
<b>NAME OF SUBMITTER:</b>	CYNTHIA A. WILLIS

<b>SIGNATURE:</b>	/Cynthia A. Willis/
<b>DATE SIGNED:</b>	05/25/2017
<b>Total Attachments: 13</b> source=IP-0538-PRV_Assignment#page1.tif source=IP-0538-PRV_Assignment#page2.tif source=IP-0538-PRV_Assignment#page3.tif source=IP-0538-PRV_Assignment#page4.tif source=IP-0538-PRV_Assignment#page5.tif source=IP-0538-PRV_Assignment#page6.tif source=IP-0538-PRV_Assignment#page7.tif source=IP-0538-PRV_Assignment#page8.tif source=IP-0538-PRV_Assignment#page9.tif source=IP-0538-PRV_Assignment#page10.tif source=IP-0538-PRV_Assignment#page11.tif source=IP-0538-PRV_Assignment#page12.tif source=IP-0538-PRV_Assignment#page13.tif	

**ASSIGNMENT OF IP RIGHTS TO ILLUMINA, INC.**

WHEREAS, each one of the undersigned:

Name: **Xiaohai Liu**  
Address: Chesterford Research Park  
Little Chesterford  
Nr Saffron Walden  
Essex  
United Kingdom CB10 1XL

Name: **Geoffrey Paul Smith**  
Address: Chesterford Research Park  
Little Chesterford  
Nr Saffron Walden  
Essex  
United Kingdom CB10 1XL

Name: **Jonathan Mark Boutell**  
Address: Chesterford Research Park  
Little Chesterford  
Nr Saffron Walden  
Essex  
United Kingdom CB10 1XL

Name: **Thomas Joseph**  
Address: 5200 Illumina Way  
San Diego , CA 92122

Name: **Xiaolin Wu**  
Address: Chesterford Research Park  
Little Chesterford  
Nr Saffron Walden  
Essex  
United Kingdom CB10 1XL

Name: **Randall Smith**  
Address: 5200 Illumina Way  
San Diego , CA 92122

Name: **Helmy A Eltoukhy**  
Address: 25861 Industrial Blvd.  
Hayward, CA 94545

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

Name: **Robert C. Kain**  
Address: 5200 Illumina Way  
San Diego , CA 92122

Name: **Bernard Hirschbein**  
Address: 25861 Industrial Blvd.  
Hayward, CA 94545

(collectively "the Assignor/s") have made certain new and useful inventions, discoveries, and improvements (the "Inventions"), for which the Assignor/s filed the following application/s:

File No.	IP-0538-PRV		
Title:	Methods and compositions for nucleic acid sequencing		
Ser. No.	61/538,294	Filed:	September 23, 2011

and now desire/s to convey all right, title, and interest in:

- the Inventions,
- the application/s listed above, and any other applications for patent, design, utility model, certificate of invention, trademark, or trade dress, in any country or under any international or regional authority (e.g. WIPO/PCT, EPO, ARIPO, EAPO, OAPI), to the extent some or all of its subject matter is disclosed and entitled to the benefit of priority in the application/s listed above, including provisional, continuation, divisional, continuation-in-part, reissue, and reexamination applications (collectively "the Application/s"),
- the benefit of earlier filing date and right to claim priority to the Inventions and Application/s under applicable law and treaties, including the Paris Convention for the Protection of Industrial Property as revised and amended and 35 U.S.C. §§ 119, 120,
- any rights accrued by the publication of the Application/s, such as 35 U.S.C. § 154(d), Art. 67(1) EPC,
- any Letters Patent or Certificates of Invention that may be issued or granted from the Application/s, including reissued patents, reexamination certificates, renewals, and any rights resulting from an extension or adjustment of patent term, and
- any rights arising from the Invention under laws and conventions protecting copyright, trademark, trade dress, or other industrial property,

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

(collectively, "the IP Rights"), and

WHEREAS, ILLUMINA, INC., a Delaware corporation having a place of business at 5200 Illumina Way, San Diego, CA 92122, United States of America is desirous of acquiring the entire right, title, and interest for itself, its successors, and its assigns (collectively "the Assignee") in the IP Rights by an instrument in writing, 35 U.S.C. § 261;

NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration, and the receipt and sufficiency of which I/we hereby acknowledge and hereby waive the right to any additional compensation concerning the IP Rights:

I/we warrant and represent to the Assignee that I/we have the full right to convey my/our right, title, and interest in the IP Rights without encumbrance, and that I/we have not made any earlier assignment, license, grant, or mortgage to another, or made any agreement with another, that would affect my/our right, title, and interest in the IP Rights;

By this Assignment and by virtue of any earlier agreements to assign, I/we hereby assign, transfer, convey, and sell my/our entire right, title, and interest in the IP Rights to the Assignee, including any claims or causes of action for damages or other remedies arising out of any earlier violation of the IP Rights, for and to inure to the Assignee's full benefit of the IP Rights as fully as they would have been held by me/us if this Assignment had not been made;

I/we authorize the Assignee and its legal representatives to:

- (a) insert into this Assignment any supplemental information to make the identification more complete for any of the Application/s or Letters Patent already listed above,
- (b) prosecute the Application/s, file new applications for the Invention/s, and do all acts permitted by law to protect and enforce the IP Rights,
- (c) request that Letters Patent and Certificates of Invention be issued and granted to and in the name of the Assignee by the issuing or granting authority, such as the U.S. Commissioner for Patents, 37 C.F.R. § 3.81; and

I/we agree with the Assignee that I/we and my/our legal representatives, heirs, and executors will perform all acts deemed necessary or desirable by the Assignee to permit and assist it to secure the entire right, title, and interest in the IP Rights so that the Assignee may benefit from this Assignment, including:

Assignment of IP Rights to ILLUMINA, INC.

Assignors: Xiaohai Liu

File Number: IP-0538-PRV

- (a) communicating to the Assignee all facts known to me/us that relate to the history and extent of my individual contribution to the IP Rights, including the circumstances of the conception of the invention and its development and reduction to practice, and furnishing supporting documents or items in my control,
- (b) assisting in the preparation of the Application/s and their prosecution by the Assignee, 37 C.F.R. § 3.71, and in the enforcement of the IP Rights, including making, executing, and delivering to the Assignee any other necessary documents, such as further application papers, declarations, affidavits, disclaimers, petitions, or assignments, and
- (c) assisting and cooperating in administrative and legal proceedings, including giving written and oral testimony,

so that these will be performed without further consideration, except for reasonable actual expenses to be reimbursed by the Assignee.

I/we further agree with the Assignee that I/we will not perform any future act, execute any subsequent document, or make any subsequent agreement with another person or party that conflicts with this Assignment, that purports to transfer any right, title, or interest in the IP Rights that are the subject of this Assignment, unless agreed to in writing by the Assignee or that prevents the Assignee from receiving the full benefit of the bargain under this Assignment.

If any provision of this Assignment is held invalid or unenforceable, that provision shall be enforced to the maximum extent permissible in order to put into effect the intent of the Assignor/s and the Assignee, and the remainder of this Assignment shall not be affected, but continue in full force and effect.

This document shall be executable by each Assignor in parts, and the Assignment will be effective and recordable for each Assignor as of the date of that Assignor's signature.

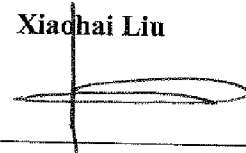
Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: Xiaohai Liu

Signature

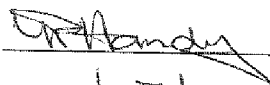
Date:

  
17/07/2012

Witness Name:

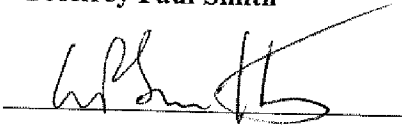
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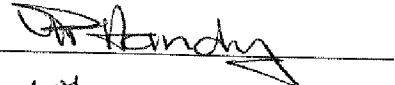
Date:

YVONNE HANDY  
  
17/07/12.

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Geoffrey Paul Smith**  
Signature:   
Date: 6 Aug 2012

Witness Name: YVONNE HANDY  
Signature:   
Date: 6<sup>th</sup> August 12



Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Jonathan Mark Boutell**

Signature

J. Boutell

Date:

20/07/12

Witness Name:

YVONNE HANDY

Signature:

Y. Handy

Date:

20th JULY 12

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Thomas Joseph**

Signature

Thomas

Date:

08 / 22 / 2012

### ACKNOWLEDGMENT

State of California  
County of San Diego

On August 22, 2012 before me, Irja Zarembok, Notary Public  
(insert name and title of the officer)

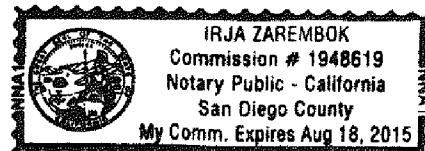
personally appeared Thomas Joseph  
who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/are  
subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in  
his/~~her/their~~ authorized capacity~~(ies)~~, and that 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

Paul (Seal)




Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Xiaolin Wu**

Signature



Date:

13/07/2012

Witness Name:

YVONNE HANDY.

Signature:



Date:

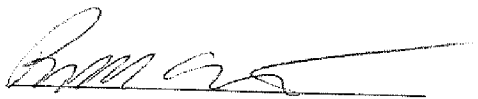
13<sup>th</sup> JULY 12.

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Randall Smith**

Signature



Date:

Aug 6, 2012

### ACKNOWLEDGMENT

State of California  
County of San Diego

On August 6, 2012 before me, Irja Zarembok, Notary Public  
(insert name and title of the officer)

personally appeared Randall Smith  
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

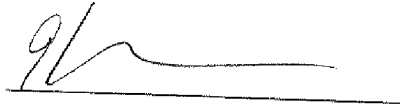
  
(Seal)

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Helmy A Eltoukhy**

Signature



Date:

August 16, 2012

### ACKNOWLEDGMENT

State of California  
County of Alameda

On August 16, 2012 before me, Patricia Nunez-Rabelo  
(insert name and title of the officer)

personally appeared ----- Helmy A. Eltoukhy -----  
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 Patricia Nuñez-Rabelo (Seal)

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Robert C. Kain**

Signature



Date:

8/6/12

### ACKNOWLEDGMENT

State of California  
County of San Diego

On August 6, 2012 before me, Iris Zarembok, Notary Public  
(insert name and title of the officer)

personally appeared Robert C. Kain  
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)

Assignment of IP Rights to ILLUMINA, INC.  
Assignors: Xiaohai Liu  
File Number: IP-0538-PRV

In testimony of this Assignment, I am signing and dating this document below:

Name: **Bernard Hirschbein**

Signature

*Bernard Hirschbein*

Date:

August 2, 2012

### ACKNOWLEDGMENT

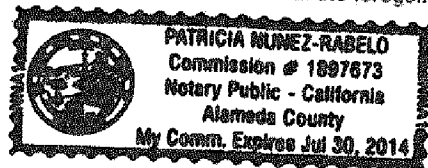
State of California  
County of Alameda

On August 2, 2012 before me, Patricia Nunez-Rabelo, Notary  
(insert name and title of the officer)

personally appeared ----- Bernard Hirschbein -----  
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 Patricia Nunez-Rabelo (Seal)