PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEFFREY G. MANDELL	06/22/2015
KEVIN L. GUNDERSON	06/23/2015
JENS H. GUNDLACH	06/23/2015

RECEIVING PARTY DATA

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Postal Code:	92122

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	14728721
PCT Number:	US2015033749

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ATTORNEY DOCKET NUMBER:	IP-1233-US; IP-1233-PCT
NAME OF SUBMITTER:	EVELYN QUAN
SIGNATURE:	/Evelyn Quan/
DATE SIGNED:	06/23/2015

Total Attachments: 4

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U.S. Patent Application No.: 14/728,721 filed June 2, 2015; and

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International Patent Application No. PCT/US2015/033749 filed June 2, 2015

Title: COMPOSITIONS, SYSTEMS, AND METHODS FOR DETECTING EVENTS USING TETHERS ANCHORED

TO OR ADJACENT TO NANOPORES

Inventor(s): Jeffrey G. Mandell, Kevin L. Gunderson and Jens H. Gundlach

Docket Nos. IP-1233-U5 and IP-1233-PCT

WHEREAS, above-identified inventors (collectively "the Assignor/s") have made certain new and useful inventions, discoveries, and improvements (the "Inventions"), for which the Assignors filed the applications listed above and now desire to convey all right, title, and interest in:

- the inventions,
- * the applications 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,

(collectively, "the IP Rights"), and

WHEREAS, ILLUMINA, INC., a Delaware corporation having a place of business at \$200 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, the receipt and sufficiency of which I/we hereby acknowledge and hereby waive the right to any additional compensation concerning the IP Rights:

U.S. Patent Application No.: 14/728,721 filed June 2, 2015; and

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International Patent Application No. PCT/US2015/033749 filed June 2, 2015

Title: COMPOSITIONS, SYSTEMS, AND METHODS FOR DETECTING EVENTS USING TETHERS ANCHORED

TO OR ADJACENT TO NANOPORES

inventor(s): Jeffrey G. Mandell, Kevin L. Gunderson and Jens H. Gundlach

Docket Nos. IP-1233-US and IP-1233-PCT

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:

- (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

U.S. Patent Application No.: 14/728,721 filed June 2, 2015; and Page 3 of 4 International Patent Application No. PCT/US2015/033749 filed June 2, 2015 Title: COMPOSITIONS, SYSTEMS, AND METHODS FOR DETECTING EVENTS USING TETHERS ANCHORED TO OR ADJACENT TO NANOPORES Inventor(s): Jeffrey G. Mandell, Kevin L. Gunderson and Jens H. Gundlach Docket Nos. IP-1233-US and IP-1233-PCT			
	ssisting and cooperating in administrative and legal proceedings, including giving vritten and oral testimony,		
so that these will be reimbursed b	be performed without further consideration, except for reasonable actual expenses to the Assignee.		
document, or ma Assignment, that this Assignment,	e with the Assignee that I/we will not perform any future act, execute any subsequent like any subsequent agreement with another person or party that conflicts with this purports to transfer any right, title, or interest in the IP Rights that are the subject of unless agreed to in writing by the Assignee or that prevents the Assignee from benefit of the bargain under this Assignment.		
the maximum ex	of this Assignment is held invalid or unenforceable, that provision shall be enforced to tent permissible in order to put into effect the intent of the Assignor/s and the remainder of this Assignment shall not be affected, but continue in full force and		
	nail be executable by each Assignor in parts, and the Assignment will be effective and sich Assignor as of the date of that Assignor's signature.		
Legal Name of In IN TESTIMONY W	ventor: Jeffrey G. Mandell /HEREOF, I hereunto set my hand and seal this <u>2000</u> day of <u>1000</u> , 20 <u>00</u> , 20 <u>00</u>		
	Signature: Am 10 Month		
Legal Name of In IN TESTIMONY V	ventor: Kevin L. Gunderson /HEREOF, I hereunto set my hand and seal this D day of Sund 20/5		

U.S. Patent Application No.: 14/728,721 filed June 2, 2015; and

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THIE: COMPOSITIONS, SYSTEMS, AND METHODS FOR DETECTING EVENTS USING TETHERS ANCHORED

TO OR ADJACENT TO NANOPORES

Inventor(s): Jeffrey G. Mandell, Kevin L. Gunderson and Jens H. Gundlach

Docket Nos. IP-1233-US and IP-1233-PCT

Legal Name of Inventor: Jens H. Gundlach

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 23 day of 3 www., 2015.

Signature: 3 H. Yune

PATENT REEL: 035889 FRAME: 0666

RECORDED: 06/23/2015