

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6413416

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
STEVEN NORBERG	09/23/2020
DMITRY K. POKHOLOK	10/30/2020
RAMESH RAMJI	05/22/2020
FRANK J. STEEMERS	04/22/2020
FAN ZHANG	05/22/2020
<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: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16663060
<b>PCT Number:</b>	US1957852
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(858)202-4545
<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>	8582024500
<b>Email:</b>	illuminadocket@illumina.foundationip.com, akopels@illumina.foundationip.com,
<b>Correspondent Name:</b>	MICHAEL P. REED
<b>Address Line 1:</b>	5200 ILLUMINA WAY
<b>Address Line 4:</b>	SAN DIEGO, CALIFORNIA 92122
<b>ATTORNEY DOCKET NUMBER:</b>	IP-1692-US, IP-1692-PCT
<b>NAME OF SUBMITTER:</b>	ANN KOPELS
<b>SIGNATURE:</b>	/Ann Kopels/
<b>DATE SIGNED:</b>	11/20/2020

**Total Attachments: 21**

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## ASSIGNMENT FROM INVENTORS

Docket No.: IP-1692-US; IP-1962-PCT

Page 1 of 5

Title: MODULATING POLYMER BEADS FOR DNA PROCESSING

U.S. Application No.: 16/663,060; PCT/US19/57852

Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

WHEREAS, above-identified inventors (collectively "the Assignor/s") have made certain new and useful inventions, discoveries, and improvements (the "Inventions"), for which the Assignor/s filed the application/s listed above 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,

(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, the receipt and sufficiency of which I/we hereby acknowledge and hereby waive the right to any additional compensation concerning the IP Rights:

## ASSIGNMENT FROM INVENTORS

Docket No.: IP-1692-US; IP-1962-PCT

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Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

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
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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.

Legal Name of Inventor: **Steven Norberg**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 23 day of Sept., 2020.

Signature: 

Legal Name of Inventor: **Dmitry K. Pokholok**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Signature: \_\_\_\_\_

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Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

Legal Name of Inventor: Ramesh Ramji

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: Frank J. Steemers

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: Fan Zhang

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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- any rights accrued by the publication of the Application/s, such as 35 U.S.C. § 154(d), Art. 67(1) EPC,
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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;

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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:

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- (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
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Legal Name of Inventor: **Steven Norberg**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Dmitry K. Pokholok**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 30 day of October, 2020.

Signature: 

## ASSIGNMENT FROM INVENTORS

Docket No.: IP-1692-US; IP-1962-PCT

Page **4** of **5**

Title: MODULATING POLYMER BEADS FOR DNA PROCESSING

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Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

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Legal Name of Inventor: **Ramesh Ramji**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Frank J. Steemers**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Fan Zhang**

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Legal Name of Inventor: **Steven Norberg**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Dmitry K. Pokholok**

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Signature: \_\_\_\_\_

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Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

---

Legal Name of Inventor: **Ramesh Ramji**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 22<sup>nd</sup> day of May, 2020.

Signature: 

Legal Name of Inventor: **Frank J. Steemers**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Fan Zhang**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

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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, the receipt and sufficiency of which I/we hereby acknowledge and hereby waive the right to any additional compensation concerning the IP Rights:

## ASSIGNMENT FROM INVENTORS

Docket No.: IP-1692-US; IP-1962-PCT

Page 2 of 5

Title: MODULATING POLYMER BEADS FOR DNA PROCESSING

U.S. Application No.: 16/663,060; PCT/US19/57852

Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

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
- (c) assisting and cooperating in administrative and legal proceedings, including giving written and oral testimony,



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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.

Legal Name of Inventor: **Steven Norberg**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Dmitry K. Pokholok**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

## ASSIGNMENT FROM INVENTORS

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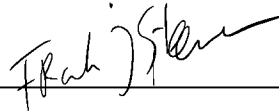
Legal Name of Inventor: **Ramesh Ramji**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Frank J. Steemers**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 22nd day of April, 2020.

Signature: 

Legal Name of Inventor: **Fan Zhang**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

## ASSIGNMENT FROM INVENTORS

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Filing Date: October 24, 2019

Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

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WHEREAS, above-identified inventors (collectively “the Assignor/s”) have made certain new and useful inventions, discoveries, and improvements (the “Inventions”), for which the Assignor/s filed the application/s listed above 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,

(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, the receipt and sufficiency of which I/we hereby acknowledge and hereby waive the right to any additional compensation concerning the IP Rights:

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Inventor(s): Steven Norberg, Dmitry K. Pokholok, Ramesh Ramji, Frank J. Steemers, Fan Zhang,

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
- (c) assisting and cooperating in administrative and legal proceedings, including giving written and oral testimony,

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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.

Legal Name of Inventor: **Steven Norberg**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: **Dmitry K. Pokholok**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

**ASSIGNMENT FROM INVENTORS**

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Legal Name of Inventor: Ramesh Ramji

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: Frank J. Steemers

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Legal Name of Inventor: Fan Zhang

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 22<sup>nd</sup> day of May, 2020.

Signature: 

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RECEIVED AND HEREBY ACCEPTED BY ILLUMINA, INC., a Delaware Corporation

Date: 11/20/20

*R. Schwillinski*

Name: Roland Schwillinski

Title: Vice President, Global IP and Litigation