### 506068029 05/20/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6114744

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the SIGNATURE DATE OF ASSIGNOR BRIAN D. KELLY TO JANUARY 20, 2015 previously recorded on Reel 052691 Frame 0978. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNORS INTEREST.

#### **CONVEYING PARTY DATA**

Name	Execution Date
WENJUN ZHANG	08/20/2014
MICHAEL FARRELL	08/21/2014
LEITANG	08/20/2014
ANTONY HUBBARD	08/20/2014
BRIAN D. KELLY	01/20/2015
TAYLOR SHINGLER	01/27/2015
DONALD JOHNSON	01/20/2015

### **RECEIVING PARTY DATA**

Name:	VENTANA MEDICAL SYSTEMS, INC.
Street Address:	1910 E INNOVATION PARK DR.
City:	ORO VALLEY
State/Country:	ARIZONA
Postal Code:	85755

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15242471

#### **CORRESPONDENCE DATA**

**Fax Number:** (925)225-1128

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.

**Phone:** 925-251-6721

**Email:** stephanie.schulman@roche.com

**Correspondent Name:** STEPHANIE SCHULMAN **Address Line 1:** 4300 HACIENDA DR.

Address Line 4: PLEASANTON, CALIFORNIA 94588

ATTORNEY DOCKET NUMBER: P32027-US-2

NAME OF SUBMITTER: ERIC GRANT LEE

PATENT 506068029 REEL: 052710 FRAME: 0521

SIGNATURE:	/Eric Grant Lee/		
DATE SIGNED:	05/20/2020		
Total Attachments: 13			
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PATENT REEL: 052710 FRAME: 0522

### 506065001 05/18/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6111716

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
WENJUN ZHANG	08/20/2014
MICHAEL FARRELL	08/21/2014
LEITANG	08/20/2014
ANTONY HUBBARD	08/20/2014
BRIAN D. KELLY	06/20/2015
TAYLOR SHINGLER	01/27/2015
DONALD JOHNSON	01/20/2015

#### **RECEIVING PARTY DATA**

Name:	VENTANA MEDICAL SYSTEMS, INC.
Street Address:	1910 E INNOVATION PARK DR.
City:	ORO VALLEY
State/Country:	ARIZONA
Postal Code:	85755

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15242471

#### **CORRESPONDENCE DATA**

**Fax Number:** (925)225-1128

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.

**Phone:** 925-251-6721

Email: stephanie.schulman@roche.com

**Correspondent Name:** STEPHANIE SCHULMAN **Address Line 1:** 4300 HACIENDA DR.

Address Line 4: PLEASANTON, CALIFORNIA 94588

ATTORNEY DOCKET NUMBER:	P32027-US-2
NAME OF SUBMITTER:	ERIC GRANT LEE
SIGNATURE:	/Eric Grant Lee/
DATE SIGNED:	05/18/2020

PATENT REEL: 052710 FRAME: 0523

#### ASSIGNMENT

We, Wenjun Zhang, of Tucson, Arizona, U.S.A., Michael Farrell, of Tucson, Arizona, U.S.A., Lei Tang, of Oro Valley, Arizona, U.S.A., Antony Hubbard, of Tucson, Arizona, U.S.A., and Leslie Baca Parkinson of Tucson, Arizona, U.S.A., have invented one or more inventions (collectively, the "Invention") as described in U.S. Provisional Patent Application No. 61/943,196, entitled SINGLE STRAND OLIGONUCLEOTIDES FOR TISSUE DIAGNOSTICS, filed on February 21, 2014; which application is referred to herein as the "Provisional Application."

The Invention was made as a result of our activities at or on behalf of Ventana Medical Systems, Inc. or as a result of our utilization of information, facilities or other resources of Ventana Medical Systems, Inc. The conditions under which the Invention was made are such as to entitle Ventana Medical Systems, Inc. to each of our entire respective right, title, and interest in the Invention and any corresponding patent applications and/or patents in the United States and its territories and dependencies, and all other countries and jurisdictions of the world.

In consideration of our obligations and other valuable consideration, we each have sold, assigned and transferred or hereby sell, assign, and transfer to Ventana Medical Systems, Inc., its successors and assigns (collectively, "Assignee"), each of our respective full and exclusive right, title, and interest in the Invention, the Provisional Application, and any corresponding patent rights throughout the United States and its territories and dependencies, and all other countries and jurisdictions of the world. The conveyance of patent rights includes, without limitation, full and exclusive right, title, and interest in all non-provisional patent applications claiming all or part of the Invention and/or claiming the benefit of a filing date of the Provisional Application, and any patents that may issue from such non-provisional patent applications in the United States and/or all other countries and jurisdictions throughout the world, and any divisional, continuation, continuation-in-part, substitution, conversion, re-examination, reissue, renewal, prolongation or extension thereof; and the right to claim priority from the Provisional Application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

We each authorize and request the issuance of any patents arising from non-provisional patent applications claiming all or part of the Invention and/or claiming the benefit of a filing date of the Provisional Application to the Assignee to be held as fully and entirely as the same would have been held by us had this assignment not been made.

We each warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied that will impair, diminish, limit, or abridge the interest herein conveyed.

We each also agree upon reasonable request to communicate with the Assignee, its representatives or agents, any facts known to us respecting all or part of the Invention, and testify in any legal proceedings, sign all lawful papers, execute all non-provisional, divisional, continuation, continuation-in-part, re-examination, and reissue applications, make all rightful

PAGE 1 OF 7 DM5# 63574 oaths, provide all requested documents, and do everything reasonably possible to aid the Assignee, its representatives or agents, to obtain and enforce proper patent protection for all or part of the Invention in the United States or any other country of the world. These provisions are binding upon each of our heirs, legal representatives, administrators and assigns.

This Assignment may be executed in one or more counterparts, each of which when executed and delivered, by facsimile or other electronic transmission, by mail delivery, or by other form of delivery, will be an original and all of which will constitute but one and the same Assignment.

IN WITNESS WHEREOF, this Assignment is executed as of the date(s) indicated on the following counterpart signature page(s).

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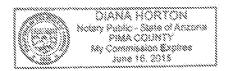
PAGE 2 OF 7 DM5# 63574

	ASSIGNOR:
Dated: 20 Aug 2019	ace
-	Wenjun Zhang
State of Arizona ) ss. County of Pima )	
County of Pima )	
Wenjun Zhang, whose identity was pro- person whose name is subscribed to this	, 2014, before me personally appeared ved to me on the basis of satisfactory evidence to be the s document, and who acknowledged that he/she executed acknowledged to me that this document was executed by the forth therein.
, (	
<u>~</u>	Otara You  otary Public  ,
M	y Commission Expires: Use 16 (2018



Dated: 4 mg 21 2014	ASSIGNOR:  Michael Farrell
State of Arizona )	
County of Pima )	
person whose name is subscribed to this docur	, 2014, before me personally appeared me on the basis of satisfactory evidence to be the ment, and who acknowledged that he/she executed wledged to me that this document was executed by therein.

Notary Public
My Commission Expires: Was 16, 2015



	ASSIGNOR:
Dated: 20 AUG 2014	Lei Tang
State of Arizona ) ) ss. County of Pima )	
On this 2014 day of August Lei Tang, whose identity was proved to me on whose name is subscribed to this document, an document in my presence, and who acknowled his/her own free will for the purpose set forth the contract of the purpose set forth the contract of the con	ged to me that this document was executed by

Notary Public

My Commission Expires: Jul 16, 2015



			ASSIGNOR:		
Dated: 22.0 Aug.	Zerre				
			Antony Hubb	æffd	
State of Arizona	}				
County of Pima	)	SS.			
On this 2016	_ day c	of August	, 201	14, before me personally appeare	d
Antony Hubbard, wh	ose idei	ntity was proved	to me on the bas	sis of satisfactory evidence to be acknowledged that he/she execut	the
				that this document was executed	
his/her own free will	for the	purpose set forth	therein.		

Notary Public
My Commission Expires: Une 26,2015

DIANA HORTON

Mosely Polic - State of Arizons

Place COUNTY

Aly Commission Explicat

Link 15, 2015

	ASSIGNOR:
Dated:	Leslie Baca Parkinson
State of Arizona ) ss.	
County of Pima	
Leslie Baca Parkinson, whose identity was be the person whose name is subscribed	, 2014, before me personally appeared as proved to me on the basis of satisfactory evidence to to this document, and who acknowledged that he/she and who acknowledged to me that this document was e purpose set forth therein.
	Diana Horn
	otary Public y Commission Expires: June 16, 2015
,IVI,	y Commission Expires. Some nor because



#### **ASSIGNMENT**

We, Brian D. Kelly, of Tucson, Arizona, U.S.A., Taylor Shingler, of Tucson, Arizona, U.S.A., and Donald Johnson of Oro valley, Arizona, U.S.A., along with others, have invented one or more inventions (collectively, the "Invention") as described in U.S. Provisional Patent Application No. 61/943,196, entitled SINGLE STRAND OLIGONUCLEOTIDES FOR TISSUE DIAGNOSTICS, filed on February 21, 2014; which application is referred to herein as the "Provisional Application."

The Invention was made as a result of our activities at or on behalf of Ventana Medical Systems, Inc. or as a result of our utilization of information, facilities or other resources of Ventana Medical Systems, Inc. The conditions under which the Invention was made are such as to entitle Ventana Medical Systems, Inc. to each of our entire respective right, title, and interest in the Invention and any corresponding patent applications and/or patents in the United States and its territories and dependencies, and all other countries and jurisdictions of the world.

In consideration of our obligations and other valuable consideration, we each have sold, assigned and transferred or hereby sell, assign, and transfer to Ventana Medical Systems, Inc., its successors and assigns (collectively, "Assignee"), each of our respective full and exclusive right, title, and interest in the Invention, the Provisional Application, and any corresponding patent rights throughout the United States and its territories and dependencies, and all other countries and jurisdictions of the world. The conveyance of patent rights includes, without limitation, full and exclusive right, title, and interest in all non-provisional patent applications claiming all or part of the Invention and/or claiming the benefit of a filing date of the Provisional Application, and any patents that may issue from such non-provisional patent applications in the United States and/or all other countries and jurisdictions throughout the world, and any divisional, continuation, continuation-in-part, substitution, conversion, re-examination, reissue, renewal, prolongation or extension thereof; and the right to claim priority from the Provisional Application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

We each authorize and request the issuance of any patents arising from non-provisional patent applications claiming all or part of the Invention and/or claiming the benefit of a filing date of the Provisional Application to the Assignee to be held as fully and entirely as the same would have been held by us had this assignment not been made.

We each warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied that will impair, diminish, limit, or abridge the interest herein conveyed.

We each also agree upon reasonable request to communicate with the Assignee, its representatives or agents, any facts known to us respecting all or part of the Invention, and testify in any legal proceedings, sign all lawful papers, execute all non-provisional, divisional, continuation, continuation-in-part, re-examination, and reissue applications, make all rightful oaths, provide all requested documents, and do everything reasonably possible to aid the

PAGE 1 OF 5 DM5# 67901 Assignee, its representatives or agents, to obtain and enforce proper patent protection for all or part of the Invention in the United States or any other country of the world. These provisions are binding upon each of our heirs, legal representatives, administrators and assigns.

This Assignment may be executed in one or more counterparts, each of which when executed and delivered, by facsimile or other electronic transmission, by mail delivery, or by other form of delivery, will be an original and all of which will constitute but one and the same Assignment.

IN WITNESS WHEREOF, this Assignment is executed as of the date(s) indicated on the following counterpart signature page(s).

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PAGE 2 OF 5 DM5# 67901

	ASSIGNOR:
Dated: 10 Ton 2015	Brian D. Kelly
	Bulli D. Keny
•	
State of Arizona ) ) ss. County of Pima )	
County of Pima )	
person whose name is subscribed to this docu	, 2015, before me personally appeared me on the basis of satisfactory evidence to be the ment, and who acknowledged that he/she executed owledged to me that this document was executed by therein.
Notary I My Con	Public nmission Expires: June 16,2015

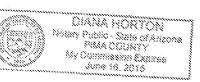


Dated: <u>2015 Jac</u>	27	·	ASSIGNOR: Taylor Shingle
State of Arizona County of Pima	) } }	88.	
Taylor Shingler, who person whose name i	se ide s subs preser	ntity was pr cribed to thi ice, and who	, 2015, before me personally appeared oved to me on the basis of satisfactory evidence to be the s document, and who acknowledged that he/she executed acknowledged to me that this document was executed by t forth therein.

Notary Public
My Commission Expires: June 16,2015



	ASSIGNOR:
Dated:	Donald Johnson
State of Arizona ) ) ss. County of Pima )	
On this <u>John</u> day of <u>January</u> Donald Johnson, whose identity was proved to person whose name is subscribed to this docur	, 2015, before me personally appeared o me on the basis of satisfactory evidence to be the ment, and who acknowledged that he/she executed wledged to me that this document was executed by therein.
Notary P	ublic mission Expires June 16,2018



PAGE 5 OF 5 DM5# 67901