

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Weimin Sun</td><td>07/06/2007</td></tr><tr><td>Matthew J. McGinniss</td><td>10/01/2007</td></tr><tr><td>Donghui Huang</td><td>10/13/2007</td></tr><tr><td>Arlene Buller</td><td>02/21/2008</td></tr><tr><td>Raymond Fenwick</td><td>07/06/2007</td></tr><tr><td>Mei Peng</td><td>02/21/2008</td></tr><tr><td>Franklin Quan</td><td>07/06/2007</td></tr></tbody></table>		Name	Execution Date	Weimin Sun	07/06/2007	Matthew J. McGinniss	10/01/2007	Donghui Huang	10/13/2007	Arlene Buller	02/21/2008	Raymond Fenwick	07/06/2007	Mei Peng	02/21/2008	Franklin Quan	07/06/2007
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RECEIVING PARTY DATA																	
<table border="1"><tr><td>Name:</td><td>Quest Diagnostics Investments Incorporated</td></tr><tr><td>Street Address:</td><td>300 Delaware Avenue</td></tr><tr><td>City:</td><td>Wilmington</td></tr><tr><td>State/Country:</td><td>DELAWARE</td></tr><tr><td>Postal Code:</td><td>19899</td></tr></table>		Name:	Quest Diagnostics Investments Incorporated	Street Address:	300 Delaware Avenue	City:	Wilmington	State/Country:	DELAWARE	Postal Code:	19899						
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PROPERTY NUMBERS Total: 1																	
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12847960</td></tr></tbody></table>		Property Type	Number	Application Number:	12847960												
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Application Number:	12847960																
CORRESPONDENCE DATA																	
Fax Number: (858)792-6773 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone: 8588476700																	
Email: PTOMailSanDiegoNorth@foley.com																	
Correspondent Name: Anthony C. Kuhlmann																	
Address Line 1: Foley & Lardner LLP																	
Address Line 2: P. O. Box 80278																	
Address Line 4: San Diego, CALIFORNIA 92138-0278																	
ATTORNEY DOCKET NUMBER:	054769-0305																

OP \$40.00 12847960

501258518

PATENT
REEL: 024818 FRAME: 0155

NAME OF SUBMITTER:

Anthony C. Kuhlmann

Total Attachments: 10

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FORM PTO-1595 (modified)

U.S. DEPARTMENT OF COMMERCE

(Rev. 8-30)

RECORDATION FORM COVER SHEET PATENTS ONLY

Patent and Trademark Office

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.

1. Name of conveying party(ies):

Weimin Sun
Matthew J. McGinniss
Donghui Huang
Arlene Buller
Raymond Fenwick
Mei Peng
Franklin Quan

2. Name and address of receiving party(ies):

Quest Diagnostics Investments Incorporated
300 Delaware Avenue
Wilmington, DE 19899

Additional conveying party(ies)

NO

3. Nature of conveyance:

ASSIGNMENT

Execution Date:

07/06/2007; 10/01/2007; 10/13/2007; 02/21/2008;
07/06/2007; 02/21/2008; 07/06/2007, respectively

Additional name(s) & address(es) attached?

NO

4. Application number(s) or patent number(s):

If this is being filed together with a new application, the execution date of the application is:

A. Patent Application Number(s):

12/847,960

B. Patent Number(s):

Additional numbers attached? **NO**

5. Name and address of party to whom correspondence concerning document should be mailed:

Anthony C. Kuhlmann
FOLEY & LARDNER LLP
P.O. Box 80278
San Diego, California 92138-0278

6. Total number of applications/patents involved: **1**

7. Total fee (37 C.F.R. § 3.41):

\$40.00

Check Enclosed

☒

Authorized to be charged to credit card

Authorized to be charged to deposit account

8. Payment Information

a. Credit Card Last 4 Numbers **9679**
 Expiration Date **9/30/2012**

b. Deposit account number **19-0741**Authorized User Name **Anthony C. Kuhlmann****DO NOT USE THIS SPACE**

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.

Anthony C. Kuhlmann

8/10/10

Name of person signing

Signature

Date

Total number of pages including cover sheet, attachments, and document: **10****PATENT****REEL: 024818 FRAME: 0157**

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

Quest Diagnostics Investments Incorporated
300 Delaware Avenue
Wilmington, DE 19899

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

**CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR GENE
MUTATIONS**

as set forth in this United States Patent Application

check one ☐ executed concurrently herewith,
 ☐ executed on _____,
 ☒ Serial No. 11/615,645 Filed 12/22/2006

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

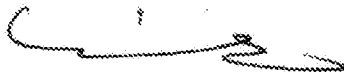
ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

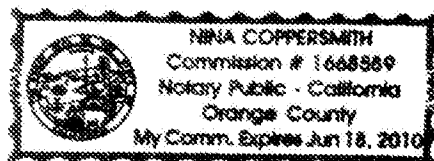
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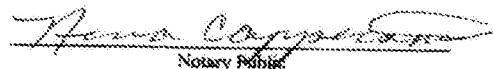
WEIMIN SUN

State of California
County of Orange

On July 6, 2009 before me, Nina Coppersmith, Public ^{Notary} (here insert name and title of the officer), personally appeared WEIMIN SUN personally known to me (or proved to me on this 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.



(Seal)



Notary Public

My Commission Expires: June 18, 2010

Executed this _____ day of _____, 20____.

State of _____
County of _____

MATTHEW MCGINNISS

On _____ before me, _____ (here insert name and title of the officer), personally appeared MATTHEW MCGINNISS personally known to me (or proved to me on this 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.

Notary Public

My Commission Expires: _____

(Seal)

Executed this _____ day of _____, 20____.

WEIMIN SUN

State of _____)
County of _____) ss.

On _____ before me, _____ (here insert name and title of the officer),
personally appeared WEIMIN SUN personally known to me (or 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.

Notary Public

My Commission Expires: _____

(Seal)

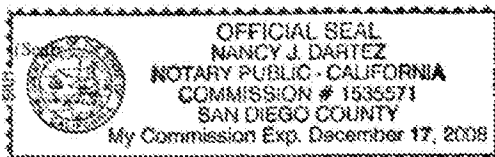
Executed this 1st day of October, 2007.

State of California)
County of San Diego) ss.

Matthew J. McGinniss
MATTHEW MCGINNISS

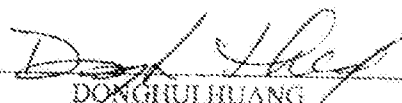
On Oct. 1, 2007 before me, Nancy J. Dartez, Notary Public (here insert name and title of the officer),
personally appeared MATTHEW MCGINNISS personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the
person(s) whose name(s) is/are subscribed to the within instrument 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.

Nancy J. Dartez
Notary Public
My Commission Expires December 17, 2008

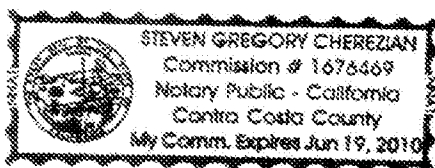


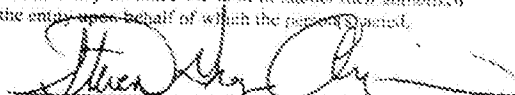
Executed this 13 day of October, 2007.

State of California,
County of Contra Costa ss.


DONGHUI HUANG

On _____ before me,
personally appeared DONGHUI HUANG personally known to me (or 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 signed,
executed the instrument.




Notary Public
My Commission Expires Jun 19, 2010

Executed this _____ day of _____, 20____.

State of _____,
County of _____ ss.

ARLENE BULLER

On _____ before me,
personally appeared ARLENE BULLER personally known to me (or 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.

(Seal)

Notary Public
My Commission Expires _____

Executed this _____ day of _____, 20____.

DONGHUI HUANG

State of California

County of _____

On _____ before me, _____ (here insert name and title of the officer), personally appeared Donghui Huang, 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)

Executed this 21st day of Feb, 2008

ARLENE BULLER

State of California

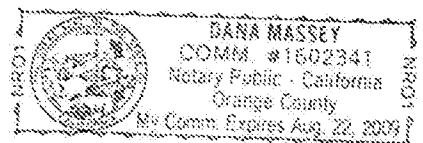
County of Orange

On Feb 21, 2008 before me, Dana Massey (Notary) (here insert name and title of the officer), personally appeared Arlene Buller, 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.

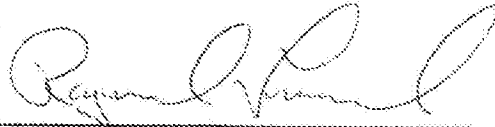
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Dana Massey (Seal)



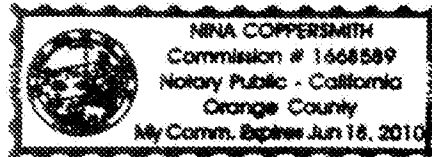
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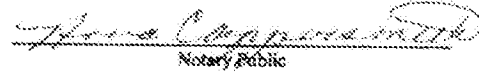


RAYMOND FENWICK

State of California)
County of Orange) ss.

On July 6, 2009 before me, Nina Coppersmith, Public (here insert name and title of the officer), personally appeared RAYMOND FENWICK personally known to me (or 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.




Notary Public

My Commission Expires: June 18, 2010

Executed this _____ day of _____, 20____.

MEI PENG

State of _____)
County of _____) ss.

On _____ before me, _____ (here insert name and title of the officer), personally appeared MEI PENG personally known to me (or 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.

Notary Public

My Commission Expires: _____

(Seal)

Executed this _____ day of _____, 20____

RAYMOND FENWICK

State of California

County of _____

On _____ before me, _____ (here insert name and title of the officer), personally appeared Raymond Fenwick, 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)

Executed this 21st day of Feb, 2008

MEI PENG

State of California

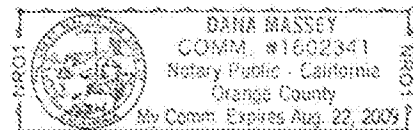
County of Orange

On Feb 21, 2008 before me, Dana Massey (Notary) (here insert name and title of the officer), personally appeared Mei Peng, 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.

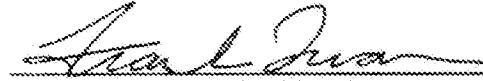
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Dana Massey (Seal)

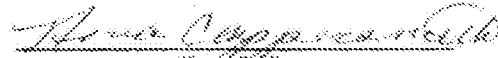


Executed this 6th day of July, 2007.


FRANKLIN QUAN

State of California)
County of Orange) ss.

On July 6, 2007 before me, Nina Coppersmith, Public (here insert name and title of the officer), personally appeared FRANKLIN QUAN personally known to me (or 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.


Nina Coppersmith
Notary Public

My Commission Expires: June 18, 2010

(Seal)

