### 502875887 07/01/2014

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

v1.1 EPAS ID: PAT2922484

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
GERALD W. FISCHER	04/28/2014
LUKE T. DAUM	05/16/2014

#### **RECEIVING PARTY DATA**

Name:	LONGHORN VACCINES AND DIAGNOSTICS, LLC
Street Address:	2 BETHESDA METRO CENTER
Internal Address:	SUITE 910
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20814

#### **PROPERTY NUMBERS Total: 2**

Property Type	Number
Application Number:	14048875
Application Number:	14048905

#### **CORRESPONDENCE DATA**

**Fax Number:** (888)570-7381

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:** 202-570-7380

Email: mail@remenicklaw.com

Correspondent Name: REMENICK PLLC

Address Line 1: 1025 THOMAS JEFFERSON ST., NW

Address Line 2: SUITE 175

Address Line 4: WASHINGTON, D.C. 20007

ATTORNEY DOCKET NUMBER: 3022.008.USCP01	
NAME OF SUBMITTER:	JAMES REMENICK
SIGNATURE:	/James Remenick/
DATE SIGNED:	07/01/2014

### **Total Attachments: 6**

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PATENT 502875887 REEL: 033226 FRAME: 0100

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#### ASSIGNMENT

WHEREAS, we, Gerald W. Fischer, with a residence address at 6417 Lybrook Drive, Bethesda, MD 20817 and Luke T. Daum, with a residence address at 318 Larkwood Drive, San Antonio, TX 78209 (the "Assignors") are the inventors and owners of all right, title, and interest in and to the improvements entitled:

# COMPOSITIONS AND METHODS FOR DETECTING AND IDENTIFYING NUCLEIC ACID SEQUENCES IN BIOLOGICAL SAMPLES

which is disclosed and described in United States Patent Application No. 14/048,875, filed October 8, 2013, and United States Patent Application No. 14/048,905, filed October 8, 2013 (the "Applications").

WHEREAS, Longhorn Vaccines & Diagnostics, LLC, a company having a place of business located at 2 Bethesda Metro Center, Suite 910, Bethesda, MD 20814 (the "Assignee"), is desirous of acquiring all rights to the improvements and under the application;

NOW, THEREFORE, in view of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by Assignors, Assignors do hereby sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, Assignors' entire right, title, and interest in the above-referenced Applications, including any nonprovisional applications that claim priority thereto, all right to claim priority and all right of recovery for prior infringement, in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said improvements. said United States application, any other United States applications, including any other provisional, and any non-provisional, divisional, renewal, substitute, continuation. reexamination and reissue applications, based in whole or in part on said United States provisional application or in whole or in part on said invention, any right of priority based in whole or in part on any of the aforesaid United States provisional applications or in whole or in part on said improvements, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said improvements, and in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said improvements or any parts thereof;

AND Assignee hereby authorizes and requests its agents, Remenick PLLC, whose address is 1025 Thomas Jefferson Street, N.W., Suite 175, Washington, D.C. 20007, to insert hereon any identification necessary or desirable for recordation of this document or any information necessary to correct typographical, grammatical or other errors in this document, including the filing date and application number of said application when known;

AND Assignors hereby agree for themselves and their heirs, executors, administrators, successors and assigns to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may

be necessary to secure to Assignee its interest and title in and to said improvements or any parts thereof, and in and to said several patents or any of them;

AND Assignors hereby covenant for themselves and their legal representatives, and agrees with said Assignee, its successors and assigns, that Assignors have granted no right or license to make, use, sell or offer to sell said improvements, to anyone except said Assignee, that prior to the execution of this deed, its right, title, and interest in said improvements had not been otherwise encumbered, and that Assignors have not and will not execute any instrument in conflict therewith;

AND Assignors do hereby authorize and request the United States Commissioner for Patents to issue any and all letters patent which may be granted upon said United States applications, or upon said improvements or any parts thereof when granted, to said Assignee.

IN WITNESS WHEREOF, Assignors hereunto set their hand and seal.

# FOR THE ASSIGNORS (THE INVENTORS):

Name: Gerald W. Fischer		Date: April <u>28,</u> 2014	
County of Montgomery	),		
State of Maryland	)	SSI	

On this day of April 2014, before me a Notary Public in and for the County and State aforesaid, personally appeared Gerald W. Fischer, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and acknowledged the same to be of his free act and deed

(SEAL)

Susan M. Graham, Notary Public

My Commission Expires 12/09/17

Name: Luke T. Daum	Date: April, 2014
County of	
State of	SS:
State aforesaid, personally appeared Lul	before me a Notary Public in and for the County and ke T. Daum, to me known and known to me to be the aled the foregoing instrument, and acknowledged the
(OF ALX	Notary Public
(SEAL)	My Commission Expires
By: LongHorn VAC  By: LongHorn VAC  By: Control of the long to the	
State atoresaid, personally appeared Ger	ss:  before me a Notary Public in and for the County and ald W. Fischer, to me known and known to me to be I sealed the foregoing instrument, and acknowledged
(SEAL)	Susan M. Graham, Notary Public  My Commission Expires 12/09/17

#### ASSIGNMENT

WHEREAS, we, Gerald W. Fischer, with a residence address at 6417 Lybrook Drive, Bethesda, MD 20817 and Luke T. Daum, with a residence address at 318 Larkwood Drive, San Antonio, TX 78209 (the "Assignors") are the inventors and owners of all right, title, and interest in and to the improvements entitled:

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AND Assignee hereby authorizes and requests its agents, Remenick PLLC, whose address is 1025 Thomas Jefferson Street, N.W., Suite 175, Washington, D.C. 20007, to insert hereon any identification necessary or desirable for recordation of this document or any information necessary to correct typographical, grammatical or other errors in this document, including the filing date and application number of said application when known;

AND Assignors hereby agree for themselves and their heirs, executors, administrators, successors and assigns to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may

be necessary to secure to Assignee its interest and title in and to said improvements or any parts thereof, and in and to said several patents or any of them;

AND Assignors hereby covenant for themselves and their legal representatives, and agrees with said Assignee, its successors and assigns, that Assignors have granted no right or license to make, use, sell or offer to sell said improvements, to anyone except said Assignee, that prior to the execution of this deed, its right, title, and interest in said improvements had not been otherwise encumbered, and that Assignors have not and will not execute any instrument in conflict therewith;

AND Assignors do hereby authorize and request the United States Commissioner for Patents to issue any and all letters patent which may be granted upon said United States applications, or upon said improvements or any parts thereof when granted, to said Assignee.

IN WITNESS WHEREOF, Assignors hereunto set their hand and seal.

# FOR THE ASSIGNORS (THE INVENTORS):

		Date: April, 2014
Name: Gerald W. Fischer		
County of	) ) ss:	
State of	) 55.	
State aforesaid, personally	appeared Gerald W. Fisc ho signed and sealed the	a Notary Public in and for the County and ther, to me known and known to me to be foregoing instrument, and acknowledged
(SEAL)		Notary Public
(marxin)		My Commission Expires

Marian Manian Marian Marian Marian Marian Marian Marian Marian Marian Ma	Attorney Docket No. 3022,008,USCI
Name: Luke T. Daum	Date: April 16, 2014
County of Petar ) State of Texas )	SS:
State aforesaid, personally appeared L	4, before me a Notary Public in and for the County and uke T. Daum, to me known and known to me to be the sealed the foregoing instrument, and acknowledged the
(SEAL)	Notary Public
FOR ASSIGNEE: LONGHORN VA	ACCINES & DIAGNOSTICS, LLC
By: Name: Gerald W. Fischer Title: President & CEO	Date: April, 2014
County of ) State of )	SSC
On this day of April 201 State aforesaid, personally appeared G	4, before me a Notary Public in and for the County and erald W. Fischer, to me known and known to me to be and sealed the foregoing instrument, and acknowledged
(SEAL)	Notary Public
	My Commission Expires

3.