

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3347437

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
REBECCA S. HOFFMAN	09/11/2014
MARK WEINBERG	09/23/2014
SUBHASHIS BANERJEE	09/27/2014
LORI K. TAYLOR	09/17/2014
CLIVE E. SPIEGLER	09/13/2014
DANIEL E. TRACEY	09/05/2014
ELLIOT K. CHARTASH	09/22/2014
WILLIAM T. BARCHUK	09/18/2014
PHILIP YAN	09/24/2014
ANWAR MURTAZA	09/25/2014
JOCHEN G. SALFELD	09/29/2014
STEVEN A. FISCHKOFF	09/10/2014
GEORGE R. GRANNEMAN	09/23/2014

**RECEIVING PARTY DATA**

<b>Name:</b>	ABBVIE BIOTECHNOLOGY LTD.
<b>Street Address:</b>	2 CHURCH STREET
<b>City:</b>	HAMILTON
<b>State/Country:</b>	BERMUDA
<b>Postal Code:</b>	HM 11

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	14681713

**CORRESPONDENCE DATA**

Fax Number: (617)832-7000

*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: 6179883584

Email: phenders@foleyhoag.com

Correspondent Name: PATRICIA L. HENDERSON/FOLEY HOAG LLP

Address Line 1: 155 SEAPORT BLVD.

**PATENT**

**Address Line 4:** BOSTON, MASSACHUSETTS 02210-2600

**ATTORNEY DOCKET NUMBER:** AVR-006.07

**NAME OF SUBMITTER:** PATRICIA L. HENDERSON

**SIGNATURE:** /Patricia L. Henderson/

**DATE SIGNED:** 05/11/2015

**Total Attachments: 26**

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ASSIGNMENT

WHEREAS, **REBECCA S. HOFFMAN** of 1300 Elmwood Ave., Wilmette, IL 60091; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
REBECCA S. HOFFMAN

11 Sep 2014  
Date

ASSIGNMENT

WHEREAS, **MARK WEINBERG** of 1311 Wendy Dr., Northbrook, IL 60062; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD.**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement

  
.....  
MARK WEINBERG

9/23/2019  
.....  
Date

ASSIGNMENT

WHEREAS, SUBHASHIS BANERJEE of 35 Hapgood Way, Shrewsbury, MA 01545 hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, ABBVIE BIOTECHNOLOGY LTD, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

  
SUBHASHI BANERJEE

September 27, 2014  
Date



ASSIGNMENT

UKT 9/17/14

WHEREAS, **LORI K. TAYLOR** of ~~14576 West Crabapple Drive, Wadsworth, IL 60083~~ <sup>500 Atlantic Avenue, Unit 17F Boston, MA 02210</sup>; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

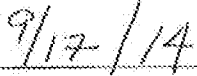
The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

  
\_\_\_\_\_  
LORI K. TAYLOR

  
\_\_\_\_\_  
Date

ASSIGNMENT

WHEREAS, **CLIVE E. SPIEGLER** of 100 Colfax Road, Skillman, NJ 08558; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
CLIVE E. SPIEGLER

9/13/2014  
Date

ASSIGNMENT

WHEREAS, **DANIEL E. TRACEY** of 149 Shaker Road, Harvard, MA 01451; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD.**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

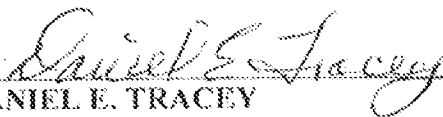
NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

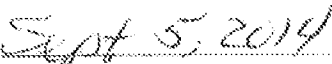
The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
\_\_\_\_\_  
DANIEL E. TRACEY

  
\_\_\_\_\_  
Date

ASSIGNMENT

WHEREAS, **ELLIOT K. CHARTASH** of 28 Edinburgh Drive, Randolph, NJ 07869; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

  
\_\_\_\_\_  
ELLIOT K. CHARTASH

22 Sept 2014  
Date



ASSIGNMENT

WHEREAS, **WILLIAM T. BARCHUK** of 95 Madison Avenue, Apt. 1, Madison, NJ 07940; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee-like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
WILLIAM T. BARCHUK

18 Sep 2014  
Date

ASSIGNMENT

WHEREAS, PHILIP YAN of 368 Old Creek Road, Vernon Hills, IL 60061; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, ABBVIE BIOTECHNOLOGY LTD, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

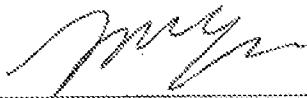
NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.



PHILIP YAN

Sept. 24, 2014

Date

ASSIGNMENT

WHEREAS, ANWAR MURTAZA of 30 Treetop Park, MA 01581; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, ABBVIE BIOTECHNOLOGY LTD, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

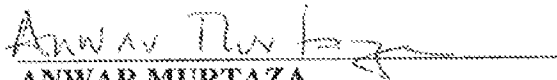
NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

  
ANWAR MURTAZA

09/25/14  
Date

ASSIGNMENT

WHEREAS, **JOCHEN G. SALFELD** of 177 Old Westboro Road, North Grafton, MA 01536; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.


NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
\_\_\_\_\_  
JOCHEN G. SALFELD

  
\_\_\_\_\_  
Date



ASSIGNMENT

WHEREAS, **STEVEN A. FISCHKOFF** of 5 Canoe Brook Road, Short Hills, NJ 07078; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBVIE BIOTECHNOLOGY LTD**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

  
\_\_\_\_\_  
STEVEN A. FISCHKOFF

10 Sept 2014  
\_\_\_\_\_  
Date

ASSIGNMENT

WHEREAS, **GEORGE R. GRANNEMAN** of 284 Seminole Court, Marco Island, FL 34145; hereinafter called the "Assignor", have jointly or solely made the invention described in the United States patent application that has a U.S. Patent Application Serial Number of 14/266,598 and was filed on April 30, 2014;

WHEREAS, **ABBYIE BIOTECHNOLOGY LTD.**, a corporation organized and existing under the laws of Bermuda, having a place of business at 2 Church Street, Hamilton, Bermuda HM 11, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW, THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefor in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

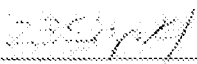
The Assignor hereby covenants and agrees, for both the Assignor and the Assignor's legal representative, that Assignor has the full right to convey the interest assigned by this Assignment; and that the Assignor will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the

Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of this Assignment; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this agreement.

  
\_\_\_\_\_  
GEORGE R. GRANNEMAN

  
\_\_\_\_\_  
Date