

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
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EPAS ID: PAT4630022

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MALVERN CONSULTING GROUP, INC.	10/23/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	RECRO PHARMA, INC.
<b>Street Address:</b>	490 LAPP ROAD
<b>City:</b>	MALVERN
<b>State/Country:</b>	PENNSYLVANIA
<b>Postal Code:</b>	19355
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15702319
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(610)640-1965
<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>	616512277
<b>Email:</b>	chill@stradley.com
<b>Correspondent Name:</b>	PAUL K. LEGAARD, ESQ.
<b>Address Line 1:</b>	30 VALLEY STREAM PARKWAY
<b>Address Line 2:</b>	STRADLEY RONON STEVENS & YOUNG, LLP
<b>Address Line 4:</b>	MALVERN, PENNSYLVANIA 19355-1481
<b>ATTORNEY DOCKET NUMBER:</b>	189109.00411 (3315)
<b>NAME OF SUBMITTER:</b>	CATHERINE HILL
<b>SIGNATURE:</b>	/Cathy1/
<b>DATE SIGNED:</b>	10/06/2017
<b>Total Attachments: 3</b>	
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## INTELLECTUAL PROPERTY ASSIGNMENT

THIS INTELLECTUAL PROPERTY ASSIGNMENT (this "*Assignment*") is made on this 23rd day of October 2013 by MALVERN CONSULTING GROUP, INC., a Pennsylvania corporation ("*Assignor*") for the benefit of RECRO PHARMA, INC., a Pennsylvania corporation ("*Assignee*").

WHEREAS, Assignor and Assignee are parties to a Master Consulting Services Agreements dated July 2008 and October 2013 (the "*Agreement*");

WHEREAS, pursuant to Section 3.1 of the Agreements, Assignee is intended to become the sole owner of the Deliverables (as defined in the Agreement) and all intellectual property rights associated therewith other than Preexisting Materials (as defined in the Agreement); and

WHEREAS, Assignor and Assignee desire to confirm and assure implementation such intent.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, intending to be legally bound, Assignor:

(a) confirms that it has previously assigned, granted, conveyed and transferred, and hereby irrevocably and forever assigns, grants, conveys and transfers, to Assignee all of its right, title and interest in and to the Deliverables and all copyrights, patent rights, trademark rights, trade secret rights and other intellectual property and proprietary rights associated with any of the foregoing that Assignor may have now or in the future, including the right to sue for past, present and future infringement or misappropriation (collectively, the "*Assigned IP*") but excluding its right, title and interest in and to Preexisting Materials and the intellectual property and proprietary rights associated therewith; and

(b) agrees that with respect to patentable subject matter included within the Assigned IP (the "*Patentable IP*"), the rights assigned, granted, conveyed and transferred to Assignee includes the patent applications listed on Exhibit A attached to this Assignment and all right, title and interest in and to continuations, divisions and renewals of and substitutes for the Patentable IP and to and under any and all additional letters patent which may be granted on or as a result thereof in the United States and any and all other countries, including international PCT applications, and any reissue or reissues or extension or extensions of such letters patent, and the right to file applications for letters patent on the Patentable IP in all countries, to be held and enjoyed by Assignee and its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said letters patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by Assignee had this Assignment not been made.

Assignor hereby grants Assignee and its legal counsel the power to insert on this Assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and

Trademark Office and/or any corresponding office of any foreign country for recordation of this Assignment.

Assignor requests the Commissioner of Patents and Trademarks (and any similar official of any foreign country) to issue any letters patent that may be issued for the Patentable IP to Assignee and its successors or assigns, as the sole owner of the entire right, title and interest in and to said letters patent.

This Assignment shall inure to the benefit of Assignee and its successors and assigns and shall be binding upon Assignor and its successors and assigns. This Assignment shall be governed by the laws of the Commonwealth of Pennsylvania applicable to contracts entered into by residents of Pennsylvania and wholly performed in Pennsylvania. This Assignment cannot be modified except in a writing signed by both Assignor and Assignee.

IN WITNESS WHEREOF, Assignor has duly executed this Assignment on the date first above written.

MALVERN CONSULTING GROUP, INC.

By: Matthew Henwood

Name: Matthew Henwood

Title: President

**EXHIBIT A**  
**PATENT APPLICATIONS**

U.S. Application No.	Filing Date	Title
61/178,730	5/15/09	Sublingual Dexmedetomidine Spray Compositions And Methods Of Use Thereof
12/781,628	5/17/10	Sublingual Dexmedetomidine Compositions And Methods Of Use Thereof
PCT/US10/35136	5/17/10	Sublingual Dexmedetomidine Spray Compositions And Methods Of Use Thereof
61/293,440	1/8/10	Topical Transdermal Dexmedetomidine Compositions And Methods Of Use Thereof
PCT/US11/20462	1/7/11	Topical Transdermal Dexmedetomidine Compositions And Methods Of Use Thereof
13/520,959	12/3/12	Topical Transdermal Dexmedetomidine Compositions And Methods Of Use Thereof
61/569,255	12/11/11	Intranasal Dexmedetomidine Compositions And Methods Of Use Thereof
13/711,407	12/11/12	Intranasal Dexmedetomidine Compositions And Methods Of Use Thereof
PCT/US12/68988	12/11/12	Intranasal Dexmedetomidine Compositions And Methods Of Use Thereof