

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

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

**CONVEYING PARTY DATA**

Name	Execution Date
Duke University	05/02/2011

**RECEIVING PARTY DATA**

<b>Name:</b>	Jed E. Rose
<b>Street Address:</b>	1823 Pleasant Green Road
<b>City:</b>	Durham
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27705

<b>Name:</b>	Seth D. Rose
<b>Street Address:</b>	613 E. Balboa Drive
<b>City:</b>	Tempe
<b>State/Country:</b>	ARIZONA
<b>Postal Code:</b>	85282

<b>Name:</b>	James E. Turner
<b>Street Address:</b>	11001 Wurzbach Road, Unit 102
<b>City:</b>	San Antonio
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	78230

<b>Name:</b>	Thangaraju Murugesan
<b>Street Address:</b>	2616 Camellia Drive, Apt. E
<b>City:</b>	Durham
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27705

**PROPERTY NUMBERS Total: 1**

Property Type	Number
	<b>PATENT</b>

**501517993**

**REEL: 026211 FRAME: 0529**

**OP \$40.00 12054883**

Application Number:	12054883
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**CORRESPONDENCE DATA**

Fax Number: (919)684-8867  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: 919/681-7577  
Email: trina.holland@duke.edu  
Correspondent Name: Eric F. Wagner  
Address Line 1: 2812 Erwin Road, Suite 306  
Address Line 2: Box 90083  
Address Line 4: Durham, NORTH CAROLINA 27705

ATTORNEY DOCKET NUMBER:	DU2353US
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NAME OF SUBMITTER:	Eric F. Wagner
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Total Attachments: 7  
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**ASSIGNMENT**

**THIS ASSIGNMENT**, effective on the 29<sup>th</sup> day of April, 2011, Duke University, a non-profit organization organized under and pursuant to the laws of North Carolina having its principal place of business at 2812 Erwin Rd., Ste. 306, Durham, North Carolina 27705 (hereinafter referred to as Assignor), possesses the right, title and interest for and in U.S. Patent Application No. 12/054,883, filed March 25, 2008 and titled "Device and Method for Delivery of a Medicament," and the following corresponding foreign patent applications: Australian Patent Application No. 2008232897, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;" Canadian Patent Application No. 2,682,432, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;" Chinese Patent Application No. 200880017582.7, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;" European Patent Application No. 08744313.1, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;" Indian Patent Application No. 6272/DELNP/2009, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;" and Japanese Patent Application No. 2010-501159, filed internationally on March 25, 2008 and titled "Device and Method for Delivery of a Medicament;"

**WHEREAS**, Jed E. Rose of 1823 Pleasant Green Road, Durham, North Carolina, 27705, United States of America; Seth D. Rose, residing at 613 E. Balboa Drive, Tempe, Arizona 85282, United States of America; James E. Turner of 11001 Wurzbach Rd., Unit 102, San Antonio, Texas 78230, United States of America; Thangaraju Murugesan of 2616 Camellia Drive, Apt. E, Durham, North Carolina 27705, United States of America (collectively, the "Assignee") is desirous of acquiring the entire right, title and interest in and to the above-mentioned inventions and applications for Letters Patent, and in and to any and all divisionals, continuations and continuations-in-part of said applications and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues,

reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, (the "Rights"), subject to the reservations of rights set forth below;

**NOW, THEREFORE**, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has assigned, transferred and set over, and by these presents do assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the aforesaid Rights in existence as of the Effective Date, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this assignment not been made, except that Assignor reserves a perpetual and royalty free right for itself, Duke University, the named inventors and their future not-for-profit employers to make and use the invention, and to practice under the Rights for educational, research, and patient care and treatment purposes;

**AND**, nothing herein shall be construed as an assignment of any rights of Assignor other than the Rights. Assignee acknowledges that in order to maintain the Rights, Assignee must maintain prosecutions of all aforementioned patent applications, including any annuity or maintenance fees, prior to any expiration dates issued by the U.S. Patent Office or foreign equivalent thereof; Assignee further acknowledges that the Assignment of the Rights provided hereunder does not include assignment of improvement inventions, related inventions, or other intellectual property or proprietary information that has been or is made by the inventors or other at Duke University;

**AND**, nothing herein shall be construed as (i) a warranty or representation by Assignor as to the validity or scope of any Rights, (ii) a warranty or representation that anything made, used, imported, developed, promoted, offered for sale, sold, or otherwise disposed of under the Rights does not or will not infringe patents, trade secrets or other

proprietary rights of third parties; (iii) a representation or warranty of operability or that development of any commercial products is possible; (iv) any other representations or warranties, either express or implied, unless specified herein; (v) directly or indirectly operating or applying as a waiver of sovereign immunity by the state of North Carolina; or (vi) imposing any obligation or any liability on any party contrary to the laws of the state of North Carolina; ALL RIGHTS ARE ASSIGNED HEREUNDER "AS IS," ASSIGNOR DISCLAIMS AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE RIGHTS;

**AND**, for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

**AND** Assignor hereby requests the U.S. Commissioner of Patent and Trademarks and the Patent and Trademark Offices of all foreign countries respectively, to issue said Letters Patent of the United States and all foreign countries to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

**AND** Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by affixing their signatures below.

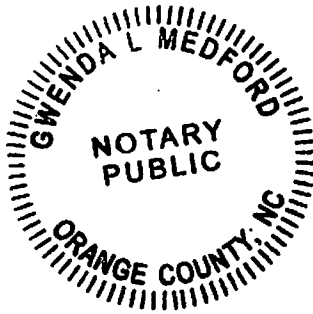
*The undersigned agree that this document may be exercised in a number of counterparts, all of which together shall for all purposes constitute one agreement, binding on all the parties notwithstanding that all parties have not signed the same counterpart.*

Signature of Representative  
for Assignor:

Date: 5/2/11

Signature: *[Handwritten Signature]*

Robert Taber, Ph.D.  
Vice Chancellor, Corporate  
& Venture Development  
Duke University Medical Center



*I have witnessed signature - 5/2/11*

*Gwendal L. Medford  
exp. 8/13/2012*

Signature of Assignees:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Jed E. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Seth D. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

James E. Turner

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Thangaraju Murugesan

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Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Robert Taber, Ph.D  
Vice Chancellor, Corporate  
& Venture Development  
Duke University Medical Center

Signature of Assignees:

Date: April 29, 2011

Signature: Jed E. Ross

Jed E. Ross

Date: April 29, 2011

Signature: Seeth D. Rose

Seeth D. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

James E. Turner

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Thangaraju Murugesan

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Robert Taber, Ph.D.  
Vice Chancellor, Corporate  
& Venture Development  
Duke University Medical Center

Signature of Assignees:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

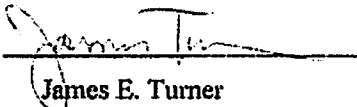
Jed E. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Seth D. Rose

Date: 4/29/11 \_\_\_\_\_

Signature:  \_\_\_\_\_

James E. Turner

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Thangaraju Murugesan



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for Assignor:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Robert Taber, Ph.D.  
Vice Chancellor, Corporate  
& Venture Development  
Duke University Medical Center

Signature of Assignees:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Jed E. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Seth D. Rose

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

James F. Turner

Date: April 30, 2011

Signature: \_\_\_\_\_

Thangaraju Murugesan