504440935 06/30/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT4487636

CONVEYING PARTY DATA

Name	Execution Date
JAMES YOO	01/13/2011
SANG JIN LEE	01/26/2011
MARK VAN DYKE	01/24/2011
ANTHONY ATALA	01/13/2011

RECEIVING PARTY DATA

Name:	WAKE FOREST UNIVERSITY HEALTH SCIENCES	
Street Address:	eet Address: MEDICAL CENTER BOULEVARD	
City:	WINSTON-SALEM	
State/Country:	NORTH CAROLINA	
Postal Code:	27157	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15640063

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	140155.03211
NAME OF SUBMITTER:	THOMAS J. ENGELLENNER
SIGNATURE:	/Thomas J. Engellenner/
DATE SIGNED:	06/30/2017

Total Attachments: 5

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PATENT REEL: 042879 FRAME: 0482

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made this All day of AMAY, 2011, by James Yoo, Sang Jin Lee, Mark Van Dyke, and Anthony Atala (hereinafter referred to as Assignors), residing at 185 Cedar Trail, Winston-Salem, North Carolina 27104, 326 Summergate, Winston-Salem, North Carolina 27103, 1003 Greenhurst Road, Winston-Salem, North Carolina 27104, and 345 North Stratford Road, Winston-Salem, North Carolina 27104; respectively;

WHEREAS, Assignors have invented certain new and useful improvements in DIRECTED STEM CELL RECRUITMENT, set forth in a Patent application for Letters Patent of the United States, filed on May 11, 2009 as International Application No. PCT/US09/43446; and

WHEREAS, WAKE FOREST UNIVERSITY HEALTH SCIENCES, a non-profit organization, having a place of business at 391 Technology Way, Suite 199, Winston-Salem, North Carolina 27101 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, 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 same to be held and enjoyed by Assignee, for its own use and benefit and the use

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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 Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors 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, without charge to Assignee, its successors, legal representatives and assigns, 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 Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignce, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignce, its successors, legal representatives and assigns.

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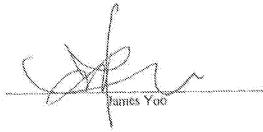
AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

NUTTER MCCLENNEN & FISH LLP

All practitioners at Customer Number 021125

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

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		Sang Jin Lee
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Acknowledged to me that (he)(she) signed it voluntarily for its stated purpose.

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My Commusium Expired 10/19/2015

EATHERINE OBERG Notary Public North Carolina Fersyth County



On this Jun day of January, 2011 before me, the undersigned notary public, personally appeared Mark Van Dyks (name of document signer), proved to me through satisfactory evidence of identification, which were person whose name is signed on the preceding or attached document, and Acknowledged to me that (he)(she) signed it voluntarily for its stated purpose.
KATHERINE OFFICE KATHERINE OFFICE NOTATIVE Public NOTATIVE AT 10/19/2015 KATHERINE OFFICE NOTATIVE Public NOTATIVE POPULA FOREYTH COUNTY
Anthôny Atala
On this 124 day of 100000 , 2011 before me, the undersigned notary public, personally appeared Anthony Atala (name of document signer), proved to me through satisfactory evidence of identification, which were 100000000000000000000000000000000000
Kathlain ODEVA (official signature and seal of notary) Kathlain ODEVA (official signature and seal of notary) Reserve Public North Carelina Forest County

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