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Patent and Trademark Office**

Attorney Docket No. 147854.04

Please record the attached document.

Total number of pages including cover sheet, attachments, and document: 6

1. A. Name of conveying party(ies):
 (1) Vadim BACKMAN
 (2) Hemant ROY
 (3) Young L. KIM
 (4) Michael SIEGEL
 (5) Vladimir TURZHITSKY

B. Additional name(s) of conveying party(ies) attached?
 Yes No

2. A. Name and address of receiving party(ies):

NORTHSHORE UNIVERSITY
 HEALTHSYSTEM
 2650 RIDGE AVENUE
 EVANSTON, ILLINOIS 60201

NORTHWESTERN UNIVERSITY
 633 CLARK STREET
 EVANSTON, ILLINOIS 60208

3. A. Nature of conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other _____

B. Execution Date: (1) 4/24/13; (2) 4/25/13; (3) 5/8/13; (4) 5/9/13; and (5) 5/15/13

B. Additional name(s) & address(es) attached?
 Yes No

4. A. Patent Application No.(s) 13/839,234

B. Patent No.(s)

Additional numbers attached? Yes No

C. Title of Application: METHOD OF USING THE DETECTION OF EARLY INCREASE IN MICROVASCULAR BLOOD CONTENT TO DISTINGUISH BETWEEN ADENOMATOUS AND HYPERPLASTIC POLYPS

6. Total number of applications and patents involved: 1

5. Name and address of party to whom correspondence concerning document should be mailed:

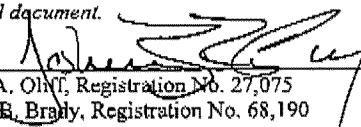
Name: James A. Oliff

Address: **OLIFF & BERRIDGE, PLC
 P.O. Box 320850
 Alexandria, VA 22320-4850
 Phone Number: 703-836-6400
 Fax Number: 703-836-2787**

7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.

8. Credit any overpayment or charge any underpayment to deposit account number 15-0461.

9. **Statement and signature.**
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.



 James A. Oliff, Registration No. 27,075
 Joshua B. Brady, Registration No. 68,190

Date: June 7, 2013

PATENT

CH \$40.00 150461 13839234

WORLDWIDE ASSIGNMENT

(1-8)	Insert Legal Name(s) of Inventor(s)	(1) <u>Vadim BACKMAN</u>	(2) <u>Young L. KIM</u>
		(3) <u>Michael SIEGEL</u>	(4) <u>Vladimir TURZHITZKY</u>
		(5) _____	(6) _____
		(7) _____	(8) _____

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9)	Insert Name of Assignee	(9) <u>NORTHWESTERN UNIVERSITY</u>
(10)	Insert Address of Assignee	(10) <u>633 Clark Street, Evanston, Illinois 60208</u>

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100 and for all other countries: in the invention; in all applications for patent or similar rights on the invention, said applications including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), including any application(s) filed in any country based thereon, and including the right to file foreign applications under the provisions of any treaty or convention; and in all grants, such as Letters Patent, certificates, utility models, confirmations, extensions, reissues and reexamination certificates that may be granted in the United States and in all other countries on the invention, known as

(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11) <u>Method of Using the Detection of Early Increase in Microvascular Blood Content to Distinguish Between Adenomatous and Hyperplastic Polyps</u>
		(Attorney Docket No. <u>147854.04</u>) filed on even date herewith or as

(12)	Alternative Identification for filed applications	(12) U.S. Application Number <u>13/839,234</u>
		filed <u>March 15, 2013</u>

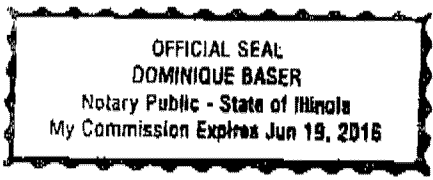
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- 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or grant for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.
- 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm a valid grant to the Assignee in the United States and any other country in which the Assignee may file an application for patent or other grant.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office and other issuing authorities to issue any and all patents or other grants resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the firm of OLIFF & BERRIDGE, PLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of any issuing authority, including the United States Patent and Trademark Office, for recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	<u>4/24/2013</u>	Inventor Signature	<u>Vadim Backman</u>	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date	<u>4/24/13</u>	Witness	<u>[Signature]</u>
Date	_____	Witness	_____



WORLDWIDE ASSIGNMENT

Insert (1) Hemant ROY (2) _____
 (1-8) Legal Name(s) (3) _____ (4) _____
 of Inventor(s) (5) _____ (6) _____
 (7) _____ (8) _____

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9) Insert Name of Assignee (9) NORTHSHORE UNIVERSITY HEALTHSYSTEM
 (10) Insert Address of Assignee (10) 2650 Ridge Avenue, Evanston, Illinois 60201

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100 and for all other countries: in the invention; in all applications for patent or similar rights on the invention, said applications including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), including any application(s) filed in any country based thereon, and including the right to file foreign applications under the provisions of any treaty or convention; and in all grants, such as Letters Patent, certificates, utility models, confirmations, extensions, reissues and reexamination certificates that may be granted in the United States and in all other countries on the invention, known as

(11) Insert Identification such as Title, Case Number, or Foreign Application Number (11) Method of Using the Detection of Early Increase in Microvascular Blood Content to Distinguish Between Adenomatous and Hyperplastic Polyps
 (Attorney Docket No. 147854.04), filed on even date herewith or as

(12) Alternative Identification for filed applications (12) U.S. Application Number 13/839,234
 filed March 15, 2013

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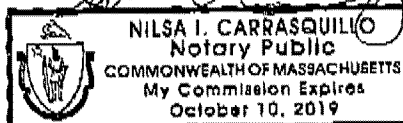
In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 4/25/2013 Inventor Signature Hemant Roy (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)
 Date _____ Inventor Signature _____ (SEAL)

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Date _____ Witness _____
 Date _____ Witness _____

Before me appeared Hemant Roy on & his 25th day of April, 2013



Insert	(1)	<u>Vadim BACKMAN</u>	(2)	<u>Young L. KIM</u>
(1-8) Legal Name(s)	(3)	<u>Michael SIEGEL</u>	(4)	<u>Vladimir TURZHITZKY</u>
of Inventor(s)	(5)	_____	(6)	_____
	(7)	_____	(8)	_____

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(9) Insert Name of Assignee	(9)	<u>NORTHWESTERN UNIVERSITY</u>
(10) Insert Address of Assignee	(10)	<u>633 Clark Street, Evanston, Illinois 60208</u>

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100 and for all other countries: in the invention; in all applications for patent or similar rights on the invention, said applications including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), including any application(s) filed in any country based thereon, and including the right to file foreign applications under the provisions of any treaty or convention; and in all grants, such as Letters Patent, certificates, utility models, confirmations, extensions, reissues and reexamination certificates that may be granted in the United States and in all other countries on the invention, known as

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	<u>5/8/2013</u>	Inventor Signature	<u><i>Young L. Kim</i></u>	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)

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Date	<u>5/8/2013</u>	Witness	<u><i>Conrad L. Howe</i></u>
Date	_____	Witness	_____



Tippecanoe County
 Conrad L. Howe
 The UPS Store
 Expires: 12/07/2013
PATENT

WORLDWIDE ASSIGNMENT

Insert (1-8) Legal Name(s) of Inventor(s)	(1) <u>Vadim BACKMAN</u> (3) <u>Michael SIEGEL</u> (5) _____ (7) _____	(2) <u>Young L. KIM</u> (4) <u>Vladimir TURZHITZKY</u> (6) _____ (8) _____
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(9) Insert Name of Assignee (10) Insert Address of Assignee	(9) <u>NORTHWESTERN UNIVERSITY</u> (10) <u>633 Clark Street, Evanston, Illinois 60208</u>
--	--

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100 and for all other countries: In the invention: in all applications for patent or similar rights on the invention, said applications including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue applications), including any application(s) filed in any country based thereon, and including the right to file foreign applications under the provisions of any treaty or convention; and in all grants, such as Letters Patent, certificates, utility models, confirmations, extensions, reissues and reexamination certificates that may be granted in the United States and in all other countries on the invention, known as

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(12) Alternative Identification for filed applications	(12) U.S. Application Number <u>13/2839,234</u> Filed <u>March 13, 2013</u>
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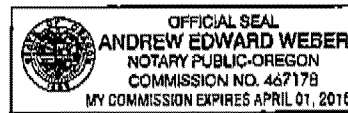
In witness whereof, executed by the undersigned on the date(s) opposite the undersigned names:

Date <u>5/9/13</u>	Inventor Signature <u>[Signature]</u>	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)
Date _____	Inventor Signature _____	(SEAL)

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Date <u>See Below</u>	Witness <u>See Below</u>
Date _____	Witness _____

Acknowledgment
State of OREGON
County of Multnomah
This instrument was acknowledged before me on: May 9th 2013
by: Michael Siegel



Notary Public

WORLDWIDE ASSIGNMENT

V.T. 5/15/2013

(1-8) **Insert Legal Name(s) of Inventor(s)**

(1) Vadim BACKMAN (2) Young L. KIM

(3) Michael STEGEL (4) Vladimir TURZHITSKY

(5) _____ (6) _____

(7) _____ (8) _____

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(10) **Insert Address of Assignee** (10) 633 Clark Street, Evanston, Illinois 60208

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Date 5/15/2013 Inventor Signature [Signature] (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

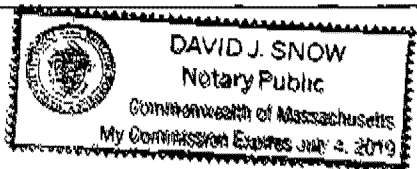
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Date 5/15/13 Witness [Signature]

Date _____ Witness _____



For Vladimir - Turzhitsky

PATENT