# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2871673

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HASSAN RIVAZ	11/30/2011
GREGORY HAGER	11/29/2011
EMAD M BOCTOR	12/14/2011
IOANA FLEMING	11/29/2011

### **RECEIVING PARTY DATA**

Name:	THE JOHNS HOPKINS UNIVERSITY	
Street Address:	3400 NORTH CHARLES STREET	
City:	BALTIMORE	
State/Country:	MARYLAND	
Postal Code:	21218	

#### **PROPERTY NUMBERS Total: 2**

Property Type	Number
Application Number:	13279970
Application Number:	61405890

### **CORRESPONDENCE DATA**

**Fax Number:** (202)344-8300

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:** 2023444362

**Email:** ptomail@venable.com, tjx01@venable.com, tjreno@venable.com

Correspondent Name: HENRY J DALEY
Address Line 1: 575 7TH STREET NW

Address Line 2: VENABLE LLP

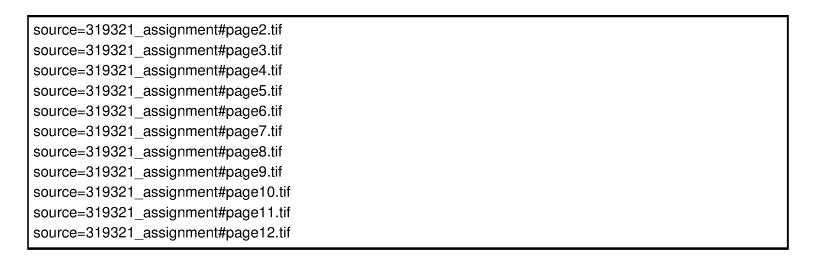
Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	02240-319321
NAME OF SUBMITTER:	HENRY J. DALEY, PH.D.
SIGNATURE:	/Henry J. Daley, Ph.D./
DATE SIGNED:	05/27/2014

**Total Attachments: 12** 

source=319321\_assignment#page1.tif

PATENT REEL: 032967 FRAME: 0537



WHIEDEAC Harrey Diver Custom Harry Freed M. Poster and Loon Floring harringflar referred

	As, Hassan Kivaz, Gregory Hager, Emad M. Boctor and Touria Fleming, incliniated referred
to as the Assignor, h	have invented a certain improvement relating to METHOD AND SYSTEM FOR PROCESSING
	ATA, for which said Assignor has caused an application for United States Letters Patent to be
prepared,	
	nventor's declaration for said application being executed concurrently with the execution of this said application to be filed in the U.S. Patent and Trademark Office;
h -	application having been filed in the U.S. Patent and Trademark Office on October 24, 2011 and dication No. 13/279.970 :
	S. Provisional Application having been filed in the U.S. Patent and Trademark Office on 2, 2010, and given Application No. 61/405,890;
[ ] said app	plication having been filed under the Patent Cooperation Treaty on, and given, the United States of America having been designated.

WHEREAS, The Johns Hopkins University, having a principal place of business located at 3400 North Charles Street, Baltimore, Maryland 21218, hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, any non-provisional application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assigner hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

The Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

IN WITNESS WHEREOF, each individual collectively referred to as Assignor has caused this Assignment to

be executed. EXECUTED this 30 ASSIGNOR: Hassan Rivaz WITNESS: Signature: **EXECUTED** this WITNESS: ASSIGNOR: Gregory Hager Signature: Signature: Name: Address: **EXECUTED** this WITNESS: ASSIGNOR: Signature: Name: Addresst

Atty. Docket No.:-02240-319321

## WORLDWIDE ASSIGNMENT

EXECUTED this day of, 2011.	
ASSIGNOR: <u>Ioana Fleming</u>	WITNESS:
Signature:	Signature: Name: Address:

VENABLE LLP Washington, D.C. 20004

DC2DOCS1-#1204939-v1-

3

WHEREAS, <u>Hassan Rivaz</u>, <u>Gregory Hager</u>, <u>Emad M. Boctor and Ioana Fleming</u>, hereinafter referred to as the Assignor, have invented a certain improvement relating to <u>METHOD AND SYSTEM FOR PROCESSING ULTRASOUND DATA</u>, for which said Assignor has caused an application for United States Letters Patent to be prepared,

·	
[ ] the inventor's declaration for said application being executed concurrently with the execution of instrument; said application to be filed in the U.S. Patent and Trademark Office;	f this
[x] said application having been filed in the U.S. Patent and Trademark Office on October 24, 2011 given Application No. 13/279,970;	_and
[x] said U. S. Provisional Application having been filed in the U.S. Patent and Trademark Office on October 22, 2010, and given Application No. 61/405,890;	
[ ] said application having been filed under the Patent Cooperation Treaty on, and given, the United States of America having been designated.	

WHEREAS, The Johns Hopkins University, having a principal place of business located at 3400 North Charles Street, Baltimore, Maryland 21218, hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues and prolongations thereof:

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, any non-provisional application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

The Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

IN WITNESS WHEREOF, each individual collectively referred to as Assignor has caused this Assignment to

be executed.	
EXECUTED this day of	, 2011.
ASSIGNOR: Hassan Rivaz	WITNESS;
Signature:	Signature: Name: Address;
EXECUTED this 23 day of November	2011.
ASSIGNOR: Gregory Hager Signature:	WITNESS:  Signature: Charles Advantages: Stoo N. Calles St. Address: Stoo N. Calles St. Baltimore, M.D., 21218
EXECUTED this day of,	2011.
ASSIGNOR: Emad M. Boctor	WITNESS:
Signature:	Signature: Name: Address:

EXECUTED this day of	, 2011.
ASSIGNOR: <u>Ioana Fleming</u>	WITNESS
Signature:	Signature:Name:Address;

VENABLE LLP Washington, D.C. 20004

DC2DOCS1-#1204939-v1-

3

WHEREAS, Hassan Rivaz, Gregory Hager, Emad M. Boctor and Ioana Fleming., hereinafter referred to as the Assignor, have invented a certain improvement relating to METHOD AND SYSTEM FOR PROCESSING ULTRASOUND DATA, for which said Assignor has caused an application for United States Letters Patent to be prepared,

[ ] the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the U.S. Patent and Trademark Office;
[x] said application having been filed in the U.S. Patent and Trademark Office on October 24, 2011 and given Application No. 13/279,970;
[x] said U. S. Provisional Application having been filed in the U.S. Patent and Trademark Office on October 22, 2010, and given Application No. 61/405,890;
[ ] said application having been filed under the Patent Cooperation Treaty on, and given, the United States of America having been designated.

WHEREAS, The Johns Hopkins University, having a principal place of business located at 3400 North Charles Street, Baltimore, Maryland 21218, hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, any non-provisional application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

The Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

be executed.		ferred to as Assignor has caused this Assignmen	
EXECUTED this day of	, 2011.		
ASSIGNOR: Hassan Rivaz			
		WITNESS:	
Signature:		Signature:	
		Name:	
•		Address:	-
			-
EXECUTED this day of	2011		
EAECUTED tills day of	, 2011.		
ASSIGNOR: Gregory Hager		WITNESS:	
Signature:		Signature:	_
		Name: Address:	-
		710010551	-
EXECUTED this day of			
EXECUTED this day of	, 2011.		
ASSIGNOR: Emad M. Boctor		WITNESS:	
Signature:		Signature:	
Januar III	· >	Name:	
- //www.	-	Address:	
			-

Atty. Docket No.:-02240-319321

# WORLDWIDE ASSIGNMENT

EXECUTED this day of	, 2011.	
ASSIGNOR: Ioana Fleming	WITNESS:	
Signature:	Signature Name: Address:	

VENABLE LLP Washington, D.C. 20004

DC2DOCS1-#1204939-v1-

3

WHEREAS, <u>Hassan Rivaz</u>, <u>Gregory Hager</u>, <u>Emad M. Boctor and Ioana Fleming</u>, hereinafter referred to as the Assignor, have invented a certain improvement relating to <u>METHOD AND SYSTEM FOR PROCESSING ULTRASOUND DATA</u>, for which said Assignor has caused an application for United States Letters Patent to be prepared,

the control of the co	
[ ] the inventor's declaration for said application being executed concurrently with the execution construment; said application to be filed in the U.S. Patent and Trademark Office;	of thi
[x] said application having been filed in the U.S. Patent and Trademark Office on October 24, 201 given Application No. 13/279,970;	∐_an
[x] said U. S. Provisional Application having been filed in the U.S. Patent and Trademark Office on October 22, 2010, and given Application No. 61/405,890;	
[ ] said application having been filed under the Patent Cooperation Treaty on and given the United States of America having been designated.	

WHEREAS, The Johns Hopkins University, having a principal place of business located at 3400 North Charles Street, Baltimore, Maryland 21218, hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, any non-provisional application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

l

The Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

be executed.

IN WITNESS WHEREOF, each individual collectively referred to as Assignor has caused this Assignment to

EXECUTED this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2011. ASSIGNOR: Hassan Rivaz WITNESS: Signature: Signature: Name: Address: EXECUTED this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2011. ASSIGNOR: Gregory Hager WITNESS: Signature: Signature: Name: Address: EXECUTED this \_\_\_\_\_ day of \_\_\_\_\_\_, 2011. ASSIGNOR: Emad M. Boctor WITNESS: Signature: Signature: Name: Address:

EXECUTED this 29th day of November, 2011.

ASSIGNOR: Ioana Fleming Signature:

WITNESS:

Signature: Name:

VENABLE LLP Washington, D.C. 20004

DC2DOCS1-#1204939-v1-

**PATENT REEL: 032967 FRAME: 0550** 

**RECORDED: 05/27/2014**