

102750673 PATEINTS ONLY *IVER SHEET* RE Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): Name and address of receiving party(ies) 9.11.63 Robert L. Galloway, Jr. Vanderbilt University William C. Chapman 305 Kirkland Hall James D. Stefansic Nashville, Tennessee 37240 Alan J. Herline United States of America Michael I. Miga David M. Cash Tuhin K. Sinha A Tennessee Corporation. Additional name(s) of conveying party(ies) attached? 

Yes 

No Nature of conveyance: Merger ☐ Security Agreement Change of Name Other Correction of previously recorded document Frame No. Reel Execution Date: September 3, 2003 (RLG); May 9, 2003 (WCC); April 11, 2003 (JDS); April 3, 2003 (AJH); April 3, 2003 (MIM); April 4, 2003 (DMC); & April 16, 2003 (TKS). Additional name(s) & address(es) attached? 

Yes 

No Application Number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) 10/418,187 Additional numbers attached? 

Yes 

No Name and address of party to whom correspondence 6. Total number of applications/patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41).....\$40 Check enclosed CLARK A. JABLON AKIN GUMP STRAUSS HAUER & FELD LLP Authorization to charge deficient fees or credit One Commerce Square any overpayment to Deposit Account. 2005 Market Street, Suite 2200 8. Deposit Account Number: 50-1017 (209823.0025) Philadelphia, PA 19103 Direct Dial: (215) 965-1293 (Attach duplicate copy of this page if paying by deposit E-mail: cjablon@akingump.com account) DO NOT USE THIS SPACE 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. CLARK A. JABLON Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 10

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1 2003 2	00 17	Attorney Docket No.: 9823-1801
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9-11-03	PATENI	SUNLY
Please record the attac	hed original documents or copy ther	eof.
1. Name of conveying		2. Name and address of receiving party(ies)
Robert L. Galloway, Jr.		Vanderbilt University
William C. Chapman		305 Kirkland Hall
James D. Stefansic		Nashville, Tennessee 37240 United States of America
Alan J. Herline		Office States of Afficia
Michael I. Miga		
David M. Cash Tuhin K. Sinha		(A Tennessee Corporation)
	eying party(ies) attached?  Yes  No	(**************************************
3. Nature of conveya	ance:	
	☐ Merger	
Security Agre	eement	
Other		
Correction of	previously recorded document	
	ne No.	
Execution Date: Sept	ember 3, 2003 (RLG);	
May 9, 2003 (WC	CC); April 11, 2003 (JDS);	
April 3, 2003 (AJ	H); April 31, 2003 (MIM);	
	MC); & April 16, 2003 (TKS).	Additional name(s) & address(es) attached? ☐ Yes ☒ No
4. Application Num	ber(s) or patent number(s):	
If this document i	s being filed together with a new ap	plication, the execution date of the application is:
A. Patent Applic	cation No.(s)	B. Patent No.(s)
10/418,187		
	Additional numbers at	tached? 🗌 Yes 🖾 No
5. Name and address	s of party to whom correspondence	6. Total number of applications/patents involved: 1
	nent should be mailed:	7. Total fee (37 CFR 3.41)\$40
CLARK A. JABLO		☐ Check enclosed
	AUSS HAUER & FELD LLP	Authorization to charge deficient fees or credit
One Commerce Square		any overpayment to Deposit Account.
2005 Market Street, Suite 2200		8. Deposit Account Number: 50-1017 (209823.0025)
Philadelphia, PA 19103		
Direct Dial: (215) 965-1293 E-mail: cjablon@akingump.com		(Attach duplicate copy of this page if paying by deposit
E-man. Gaulonwa		account) CTHIS SPACE
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9. Statement and sign	nature.	information is true and correct and any attached copy is 🧲
true copy of the or		agornamon is true and correct and any anached copy is a
irue copy of the ort	gum weamen.	AS
	<b>/</b> /	
CLARK A	A. JABLON	are tolon September 8, 20
Name of Pe	rson Signing	Signature Date <b>5</b>
		<b>2</b>
	Total number of pages including cover	r sheet, attachments, and documents: 10

Equivalent to Form PTO-1595

**PATENT** 

**REEL: 015345 FRAME: 0517** 

## **ASSIGNMENT**

WHEREAS, we, Robert L. Galloway, Jr., William C. Chapman, James D. Stefansic, Alan J. Herline, Michael I. Miga, David M. Cash & Tuhin K. Sinha, with respective post office addresses and citizenships of:

- 4509 Heath Road
   Nashville, Tennessee 37221
   Citizen of the United States of America;
- 415 Ellendale Avenue
   Nashville, Tennessee 37205
   Citizen of the United States of America;
- 3. 2107 Acklen Avenue
   Apartment 7
   Nashville, Tennessee 37212-3528
   Citizen of the United States of America;
- 4. 4922 Salem Drive
   Nashville, Tennessee 37211
   Citizen of the United States of America;
- 3013 Helmsdale Lane
   Franklin, Tennessee 37069
   Citizen of the United States of America;
- 6. 2107 Acklen Avenue
   Apartment 7
   Nashville, Tennessee 37212
   Citizen of the United States of America; and
- 7. 2008 Convent Place
   Nashville, Tennessee 37212
   Citizen of the United States of America,

hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

METHOD AND APPARATUS FOR COLLECTING AND PROCESSING PHYSICAL SPACE DATA FOR USE WHILE PERFORMING IMAGE-GUIDED SURGERY

5221730 VI

PATENT REEL: 015345 FRAME: 0518 for which we have executed a United States patent application, Application No. 10/418,187, filed April 16, 2003,

**ASSIGNORS** authorize ASSIGNEE or ASSIGNEE's representative to insert the Application Number and Filing date of this application if they are unknown at the time of execution of this Assignment.

WHEREAS, Vanderbilt University, a Tennessee corporation having a place of business at 305 Kirkland Hall, Nashville, Tennessee 37240, hereinafter generally referred to as "ASSIGNEE", is desirous of acquiring said invention and said patent application.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged and intending to be legally bound hereby, we, the undersigned ASSIGNORS, hereby agree to sell, assign, transfer and convey and by these presents do sell, assign, transfer and convey unto the above-named ASSIGNEE, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNORS.

-2-

9/3/1003	My y h
(Date)	Robert L. Galloway, Jr.
(Date)	William C. Chapman
(Date)	James D. Stefansic
(Date)	Alan J. Herline
(Date)	Michael I. Miga
(Date)	David M. Cash
(Date)	Tuhin K. Sinha
STATE OF	:
COUNTY OF	: SS :
who being to me personally known, and my presence and have been by me first on is free deed and act, signed, sealed and	e State and County aforesaid, on this day of 2003, personally appeared Robert L. Galloway, Jr., who having first executed the foregoing instrument in duly sworn, did acknowledge the foregoing instrument as delivered by him for the purpose therein stated and
ntending to be legally bound thereby an	ad intending that said instrument be recorded.

My Commission Expires:

Notary Public Ny Commission Expires SEPT. 30, 2000

(Date)	Robert L. Galloway, Jr.
MAY 9, 2003	forther (. Chy
(Date)	William C. Chapman
(Date)	James D. Stefansic
(Date)	Alan J. Herline
(Date)	Michael I. Miga
	D. C. I.
(Date)	David M. Cash
(Dodo)	T. I. V. C. I.
(Date)	Tuhin K. Sinha

(Date)	William C. Chapman
4/11/03	amen III
(Date)	James D. Stefansie
4/3/2003	Appleline
(Date)	Alan J. Herline
4/3/ dw3	Miles of Magi
(Date)	Michael I. Miga
4/4/2003	David M. Col
(Date)	David M. Cash
4/16/2003	Fule
/ (Date)	Tuhin K. Sinha

STATE OF This source	
	: SS
COUNTY OF St Caces	•
coolin of Se Caces	•
Defense and a material model in and for the Ctat	e and County aforesaid, on this 2 day of
Before me, a notary public in and for the Stat	e and County aforesaid, on this day of
——————————————————————————————————————	, personally appeared William C. Chapman, who
being to me personally known, and who having	ng first executed the foregoing instrument in my
presence and have been by me first duly swor	m, did acknowledge the foregoing instrument as his
free deed and act, signed, sealed and delivere	
intending to be legally bound thereby and inte	
intending to be legally bound thereby and mic	ending that said instrument be recorded.
	Dehe Sevap
DEB! SWAP	Notary Public
Notant State of Missouri	•
Louis	My Commission Expires: 12/14/2004
My Commission Lydes Dec 14, 2004	wy Commission Expires. 10/14/ 400 4
•	
STATE OF	•
STATEO	•
	: SS
COUNTY OF	:
D. C	
Before me, a notary public in and for the Stat	e and County aforesaid, on this day of
* <del>*</del>	e and County aforesaid, on this day of day of day of and day of and day of
, 2003	, personally appeared James D. Stefansic, who
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my
being to me personally known, and who having presence and have been by me first duly swort	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my rn, did acknowledge the foregoing instrument as his
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and
being to me personally known, and who having presence and have been by me first duly swort	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and
	, personally appeared James D. Stefansic, who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and ending that said instrument be recorded.
	, personally appeared <b>James D. Stefansic</b> , who ng first executed the foregoing instrument in my m, did acknowledge the foregoing instrument as his d by him for the purpose therein stated and

My Commission Expires:

STATE OF	:
	: SS
COUNTY OF	:
Before me, a notary public in and for	the State and County aforesaid, on this day of, 2003, personally appeared William C. Chapman, who
presence and have been by me first du free deed and act, signed, sealed and	The having first executed the foregoing instrument in my ally sworn, did acknowledge the foregoing instrument as his delivered by him for the purpose therein stated and and intending that said instrument be recorded.
	Notary Public
	My Commission Expires:
STATE OF Tennessee	:
10, ,,	: SS
COUNTY OF Davidson	:
April	the State and County aforesaid, on this // day of, 2003, personally appeared <b>James D. Stefansic</b> , who
being to me personally known, and we presence and have been by me first differe deed and act, signed, sealed and	who having first executed the foregoing instrument in my uly sworn, did acknowledge the foregoing instrument as his delivered by him for the purpose therein stated and and intending that said instrument be recorded.

My Commission Expires: May 30, 2004

STATE OF Tennessee	:
COUNTY OF DAVIDSON	: SS
Before me, a notary public in and for the me personally known, and who having fir and have been by me first duly sworn, did	State and County aforesaid, on this 3 day of 003, personally appeared <b>Alan J. Herline</b> , who being to est executed the foregoing instrument in my presence a acknowledge the foregoing instrument as his free deed im for the purpose therein stated and intending to be said instrument be recorded.
	Michelle 7. Richards
	Notary Public
	My Commission Expires: May 30, 2004
COLUMN TERROR TERROR ASSESSMENT	
STATE OF Tennessee	: : SS
COUNTY OF Davidson	:
to me personally known, and who having and have been by me first duly sworn, did	State and County aforesaid, on this 3 day of 003, personally appeared <b>Michael I. Miga,</b> who being first executed the foregoing instrument in my presence dacknowledge the foregoing instrument as his free deed im for the purpose therein stated and intending to be said instrument be recorded.
	Michael F. Richard

-5-

Notary Public

My Commission Expires: May 30, 2004

me personally known, and who having first and have been by me first duly sworn, did	: : ss : date and County aforesaid, on this day of 103, personally appeared <b>David M. Cash</b> , who being to st executed the foregoing instrument in my presence acknowledge the foregoing instrument as his free deed m for the purpose therein stated and intending to be aid instrument be recorded.
	My Commission Expires: May 30, 2004
STATE OF Tennessee COUNTY OF Davidson	: : ss :
Before me, a notary public in and for the State and County aforesaid, on this <u>//c/th</u>	
	Muchelle 7. Richards Notary Public

-6-

**RECORDED: 09/11/2003** 

My Commission Expires: May 30, 2004