ASSIGNMENT RECORDATION FORM COVER SHEET

Patents Only

To: Commissioner for Patents:	Date: August 24, 2012 Attorney Docket No. 5405-436	
Please record the attached original documents or copy thereof.		
Name of conveying party(ies):	2 Name and address of receiving party (100).	
[1.] Hal Cecil Charles [2.] Brian J. Soher	Duke University Erwin Road Durham, NC 27707	
Additional name(s) of conveying party(les) attached?Yes _XNo 3. Nature of conveyance:		
X Assignment Merger Security Agreement Change of Name Other Execution Date: [1.] April 5, 2010	Additional name(s) & address(es) attached? Yes _X_ No	
[2.] February 19, 2010 4. Application Serial No. 13/577,926 submitted on August 9, 26	012 as national stage of PCT/2011/025011;	
If this document is being filed together with a new application is: Additional numbers attached?YesX_No	n, the execution date of the application	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41) \$40.00	
Julie H. Richardson, Esq. Myers Bigel Sibley & Sajovec	Enclosed X Authorized to be charged to deposit account	
P. O. Box 37428 Raleigh NC 27627	8. Deposit account number: 50-0220	
DO NOT USE THIS SPACE		
9. Statement and signature To the best of my knowledge and belief, the foregoing inform of the original document. Julie H. Richardson, Reg. No 40.142 Name of Person Signing Total number of pages including cover sheet, attachments and	August 24, 2012 The document: 10 Pages (executed in 3 parts)	
CERTIFICATION OF UNDE I hereby certify that this correspondence is being fac Trademark Office via facsimile number 571-273-0140 on A	FACSIMILE TRANSMISSION R 37 CFR § 1.8 simile transmitted to the Ø.S. Patent and august 24, 2012. Cara L. Rose	

PATENT REEL: 028848 FRAME: 0866

ASSIGNMENT

THIS ASSIGNMENT, made by us, Hal Cecil Charles, a citizen of the United States of America, residing in Chapel Hill, NC; and Brian J. Soher, a citizen of the United States of America, residing in Chapel Hill, NC;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in SYSTEMS, METHODS, COMPOSITIONS AND DEVICES FOR IN VIVO MAGNETIC RESONANCE IMAGING OF LUNGS USING PERFLUORINATED GAS MIXTURES for which U.S. Provisional Application No. 61/305,025 was filed on February 16, 2010 in the United States Patent and Trademark Office; and

WHEREAS, Duke University, an educational institution having a principal place of business at Erwin Road, City of Durham, County of Durham, State of North Carolina, 27707, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said provisional application, and in and to any and all factors Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and provisional application, and in and to any and all subsequent patent applications which claim the benefit of priority from said provisional application including regular utility, continuations, and continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted for the invention in or on applications claiming the benefit of priority from said provisional application, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereof or therefor, together with the right to claim the benefit of priority from said application in all foreign countries in accordance with the International

Page 1 of 3

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and provisional application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

April.	Ain Contichartes
Witnessed by:	Mairean ainstie
Printed Name:	Maureen Ainslie
Date:	5 April 2010

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of
Brinn J. Soher
Witnessed by:
Printed Name:
Date:
WHEREBY Duke University acknowledges and accepts the assignment;
IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of
, 20 The undersigned warrants and represents that he/she has the
authority to sign this Assignment on behalf of the Assignee, Duke University.
Witnessed by:
Printed Name:
Date:

Page 3 of 3

ASSIGNMENT

THIS ASSIGNMENT, made by us, Hal Cecil Charles, a citizen of the United States of America, residing in Chapel Hill, NC; and Brian J. Soher, a citizen of the United States of America, residing in Chapel Hill, NC;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in SYSTEMS, METHODS, COMPOSITIONS AND DEVICES FOR *IN VIVO* MAGNETIC RESONANCE IMAGING OF LUNGS USING PERFLUORINATED GAS MIXTURES for which U.S. Provisional Application No. 61/305,025 was filed on February 16, 2010 in the United States Patent and Trademark Office; and

WHEREAS, Duke University, an educational institution having a principal place of business at Erwin Road, City of Durham, County of Durham, State of North Carolina, 27707, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said provisional application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and provisional application, and in and to any and all subsequent patent applications which claim the benefit of priority from said provisional application including regular utility, continuations, and continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted for the invention in or on applications claiming the benefit of priority from said provisional application, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereof or therefor, together with the right to claim the benefit of priority from said application in all foreign countries in accordance with the International

Page 1 of 3

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and provisional application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

IN WITNESS	WHEREOF, I have hereunto set my hand and seal on to	his day of
	Hal Cecil Charles	
Witnessed by:		
Printed Name:		
Date:		

Page 2 of 3

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 19 day or
February, 2010. Buen & John
Brian J. Soher
Witnessed by: Wardra Nams
Printed Name: WANDRA DAVIS
Date: 02-19-2-010
WHEREBY Duke University acknowledges and accepts the assignment;
IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of
, 20 The undersigned warrants and represents that he/she has the
authority to sign this Assignment on behalf of the Assignee, Duke University.
Mccepted Witnessett by:
Printed Name:
Date:

Page 3 of 3

ASSIGNMENT

THIS ASSIGNMENT, made by us, Hal Cecil Charles, a citizen of the United States of America, residing in Chapel Hill, NC; and Brian J. Soher, a citizen of the United States of America, residing in Chapel Hill, NC;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in SYSTEMS, METHODS, COMPOSITIONS AND DEVICES FOR *IN VIVO* MAGNETIC RESONANCE IMAGING OF LUNGS USING PERFLUORINATED GAS MIXTURES for which U.S. Provisional Application No. 61/305,025 was filed on February 16, 2010 in the United States Patent and Trademark Office; and

WHEREAS, **Duke University**, an educational institution having a principal place of business at Erwin Road, City of Durham, County of Durham, State of North Carolina, 27707, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said provisional application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and provisional application, and in and to any and all subsequent patent applications which claim the benefit of priority from said provisional application including regular utility, continuations, and continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted for the invention in or on applications claiming the benefit of priority from said provisional application, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereof or therefor, together with the right to claim the benefit of priority from said application in all foreign countries in accordance with the International

Page 1 of 3

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and provisional application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

IN WITNESS	WHEREOF, I have hereunto set my hand and sea 0	l on this day of
	Hal Cecil Charles	
Witnessed by:		
Printed Name:		
Date:		

Page 2 of 3

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of
Brian J. Soher
Witnessed by:
Printed Name:
Date:
WHEREBY Duke University acknowledges and accepts the assignment;
IN WITNESS WHEREOF, I have hereunto set my hand and scal on this day of
APALL, 20_10. The undersigned warrants and represents that he/she has the
authority to sign this Assignment on behalf of the Assignee, Duke University.
PICCEDIE RELEASED BY:
Printed Name: LOSE RITTS
Date: 4-6-7010

Page 3 of 3