

<b>PATENT ASSIGNMENT COVER SHEET</b>
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EPAS ID: PAT4912805

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ANNA R. HEMNES	08/01/2012
ALEXANDER NEWMAN	07/31/2012
JOHN NEWMAN	08/01/2012
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15951622
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<b>ATTORNEY DOCKET NUMBER:</b>	SCHA-0002-U01-V01-C01
<b>NAME OF SUBMITTER:</b>	J. STEPHEN WILLS
<b>SIGNATURE:</b>	/J. Stephen Wills/
<b>DATE SIGNED:</b>	04/12/2018
<b>Total Attachments: 2</b>	
source=SCHA-0002-U01-V01-C01 copy of -0002-U01_WO Assignment Signed#page1.tif	
source=SCHA-0002-U01-V01-C01 copy of -0002-U01_WO Assignment Signed#page2.tif	

**ASSIGNMENT**

WHEREAS, as a below named inventor, I have invented certain new and useful improvements in

**ORAL END TIDAL CARBON DIOXIDE PROBE FOR DIAGNOSING  
PULMONARY ARTERIAL HYPERTENSION**

for which a United States Patent application was filed on April 16, 2012 and bears Application Number 13/448,095;

for which an international application was filed on April 16, 2012 and bears Application Number PCT/US12/33827;

(hereinafter "Application(s)")

AND, WHEREAS, VANDERBILT UNIVERSITY, having a place of business at 305 Kirkland Hall, Nashville, TN 37240, U.S.A., hereinafter called the "Assignee," is desirous of acquiring the entire right, title, and interest in and to said Application(s) and the inventions and improvements therein disclosed.

NOW, THEREFORE, for good and valuable consideration paid to me by said Assignee, the receipt and sufficiency of which is hereby acknowledged, I as a named inventor, hereinafter the Assignor, do hereby assign, sell and transfer unto said Assignee the full and exclusive right, title and interest in and to said Application(s) and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries, and all conversions, divisions, reissues, continuations, continuations-in-part, renewals and/or extensions thereof. Such assignment also includes the right to claim priority to the Application(s) under any law, rule, treaty, or convention. Such assignment extends to the full ends of the terms of the Application(s) and such Letters Patent as fully and entirely as the same would have been held and enjoyed by me had this Assignment not been made. Said full and exclusive right, title, and interest referred to above includes all rights to all past, present and future claims for infringement of any patent resulting from said Application(s) including the right to grant licenses, to bring lawsuits, and to recover damages for any past, present, and future infringement, whether known or unknown, now existing or hereafter arising.

I, as a named inventor, covenant that I am a lawful owner of said Application(s), inventions and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements thereof, and that I have the full right to make this Assignment.

And for the consideration aforesaid, I agree individually and, if applicable, jointly, that I will communicate to said Assignee or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all conversion, divisional, reissue, continuation, continuation-in-part, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts deemed necessary or expedient by said Assignee or by counsel for said Assignee to assist or enable said Assignee to obtain and enforce full benefits from the rights and interests herein assigned. This Assignment shall be binding upon my heirs, executors, administrators and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors and/or assigns, as the case may be, of said Assignee.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

1. FULL NAME OF ASSIGNOR:  
Anna R. Hemnes

RESIDENCE:  
Nashville, TN

EXECUTED this 15<sup>th</sup> day Aug, 2012

  
SIGNATURE

2. FULL NAME OF ASSIGNOR:  
Alexander Newman

RESIDENCE:  
Nashville, TN

EXECUTED this 31 day July, 2012

  
SIGNATURE

3. FULL NAME OF ASSIGNOR:  
John Newman

RESIDENCE:  
Nashville, TN

EXECUTED this 1 day Aug, 2012

  
SIGNATURE