501778352 01/06/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Youzhi Li	12/02/2011
Bo Chen	12/02/2011
Lockett Wood	12/05/2011
Ulf Borg	12/16/2011

RECEIVING PARTY DATA

Name:	Nellcor Puritan Bennett LLC	
Street Address: 6135 Gunbarrel Avenue		
City:	Boulder	
State/Country:	COLORADO	
Postal Code:	80301	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13310849

CORRESPONDENCE DATA

Fax Number: (303)305-2224 Phone: 303-305-2400

Email: ip.legal@covidien.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Nellcor Puritan Bennett LLC
Address Line 1: 6135 Gunbarrel Avenue

Address Line 2: IP Legal

Address Line 4: Boulder, COLORADO 80301

ATTORNEY DOCKET NUMBER: H-RM-02416

NAME OF SUBMITTER: Sean O. Christofferson

PATENT

REEL: 027493 FRAME: 0690

Total Attachments: 4

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> PATENT REEL: 027493 FRAME: 0691

ASSIGNMENT

WHEREAS, I (we), the undersigned

- 1. Youzhi Li of Longmont CO USA;
- 2. Bo Chen of Lousiville CO USA;
- Lockett Wood of Lyons CO USA;
- 4. Ulf Borg of Longmont CO USA,

(hereinafter, individually referred to as "ASSIGNOR" and collectively referred to "ASSIGNORS") am (are) inventor(s) of the subject matter which is claimed and for which a patent is sought based on the patent application entitled:

METHODS AND SYSTEMS FOR PHOTOACOUSTIC MONITORING USING INDICATOR DILUTION

and which may be further identified below (hereinafter, the "Patent Application").

NOW THEREFORE, I (we), the ASSIGNOR(S), in consideration of my (our) past and/or present relationship with the ASSIGNEE (defined below) or an affiliate thereof, and for other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, do(es) hereby:

SELL, ASSIGN AND TRANSFER to Nellcor Puritan Bennett LLC (hereinafter, the "ASSIGNEE"), a legal entity of the State of Delaware, having a place of business at 6135 Gunbarrel Avenue, Boulder, Colorado 80301, the entire right, title and interest for the United States and all foreign countries in and to any invention(s) and all improvements which are disclosed in the Patent Application and all divisional, continuation, continuation-in-part, substitute, renewal, reissue, re-examinations, and all other applications for patent which have been or shall be filed in the United States, including all provisional and non-provisional applications, and all foreign countries relating to such inventions and improvements; all original and reissued or re-examined patents which have been or shall be issued in the United States and all foreign countries for such invention(s) and improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on the Patent Application, and the right to sue for past, present and future infringement of any patents issuing from the Patent Application;

AUTHORIZE AND REQUEST ASSIGNEE, its successors and assigns, or any attorney it may properly designate and/or to insert into this assignment additional information, such as that listed below, identifying the Patent Applications after execution of this assignment;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on the Patent Application to the ASSIGNEE,

AUTHORIZE the ASSIGNEE to apply for such patents for the invention in its own name;

WARRANT AND COVENANT that no assignment, grant, mortgage, lien, license or other encumbrance or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the ASSIGNOR(S);

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COVENANT, when requested and at the expense of the ASSIGNEE, to carry out in good faith the intent and purpose of this assignment, the undersigned will (1) execute all divisional, continuation, continuation-in-part, substitute, renewal, reissue, re-examinations, and all other patent applications based on the Patent Application, including any and all such invention(s) and improvements entitled; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers relating to the foregoing; (3) communicate to the ASSIGNEE all facts known to the undersigned relating to the Patent Application, including any and all invention(s) and improvements disclosed therein and the history relating thereto; (4) cooperate with the ASSIGNEE in any interference, opposition, dispute, or litigation involving any of the applications or patents for such invention(s) and improvements, including but not limited to testifying; and (5) generally do everything possible which the ASSIGNEE shall consider desirable for vesting title to such invention(s) and improvements in the ASSIGNEE, and for securing, maintaining and enforcing proper patent protection for such inventions(s) and improvements; and

AGREES THAT THIS ASSIGNMENT IS BINDING upon the heirs, assigns, representatives and successors of the undersigned and extends to the successors, assigns and nominees of the ASSIGNEE.

	Additional Patent Application Information	
	U.S. Provisional Application Serial No.	, filed on
	U.S. Non-Provisional Application Serial No. 13/310	<i>filed on</i> December 5, 201
	International Application Serial No	, filed on
(%	Signature): Name: Youzhi Li	
-	STATE OF COLORADO § \$ ss. COUNTY OF BOULDER \$ BEFORE ME, the undersigned authority, on this 2 nd day of the day of the day of the foregoes and consideration the same of his/her own free will for the purposes and consideration the	ing instrument and acknowledged to me that he/she executed the
	CATHI DOHERTY [SEAUTARY PUBLIC STATE OF COLORADO My Commission Expires 12/27/13	Outhi Saluty Doherty, Notary Public

Attorney Docket No.: H-RM-02416

(Signature):	Date: $\frac{12/62/20(1)}{2}$
Name: Bo Chen	•
STATE OF COLORADO § § ss. COUNTY OF BOULDER § BEFORE ME, the undersigned authority, on this 2 nd known to me to be the person whose name subscribed to the same of his/her own free will for the purposes and consideration.	_day ofdecem bev, 2011, personally appeared Bo Chen e foregoing instrument and acknowledged to me that he/she executed the tion therein expressed.
[SEATHI DOHERTY NOTARY PUBLIC STATE OF COLORADO My Commission Expires 12/27/13	Cathi Doherty, Notary Public
(Signature): Lockett Wood	Date: 12/65/20//
STATE OF COLORADO § § ss. COUNTY OF BOULDER § BEFORE ME, the undersigned authority, on this known to me to be the person whose name subscribed to the same of his/her own free will for the purposes and considera	day of December 2011, personally appeared Lockett Wood foregoing instrument and acknowledged to me that he/she executed the tion therein expressed.
Schuber Schube	Dr. C. Ge Hupry

Attorney Docket No.: H-RM-02416

(Signature): Name: Ulf Borg	Date: 12-16-2011
STATE OF COLORADO \$ \$ ss. COUNTY OF BOULDER \$ BEFORE ME, the undersigned authority, on the known to me to be the person whose name substance of his/her own free will for the purposes a same of his/her own free Will for the purposes a NOTARY PUBLIC STATE OF COLORADO	his 16th day of December, 2011, personally appeared Ulf Borg scribed to the foregoing instrument and acknowledged to me that he/she executed the and consideration therein expressed. Cath Doherty, Notary Public
My Commission Expires 12/27/13	