

11-14-2003

FORM PTO-1595
1-31-92

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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies): CARDIODYNAMICS INTERNATIONAL CORPORATION.</p> <p>Additional name(s) of conveying party(ies) attached? [] Yes [X] No</p> <p>3. Nature of Conveyance: <input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input checked="" type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other:</p> <p>Execution Date: September 14, 2003</p>	<p>2. Name and address of receiving party(ies):</p> <p>Name: COMERICA BANK, successor by merger to Comerica Bank-California Address: 9920 S. LA CIENEGA BLVD., SUITE 1401 City: INGLEWOOD State: CA Zip: 90301</p> <p>Additional name(s) & address(es) attached? [] Yes [x] No</p>
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4. 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:

<p>A. Patent Application No.(s)</p>	<table border="1"> <tr> <td>Patent No.(s)</td> <td></td> <td></td> </tr> <tr> <td>6,602,201</td> <td>D475,138</td> <td>6,561,986</td> </tr> <tr> <td>D471,281</td> <td>D468,433</td> <td></td> </tr> </table> <p>Additional numbers attached? [] Yes [X] No</p>	Patent No.(s)			6,602,201	D475,138	6,561,986	D471,281	D468,433	
Patent No.(s)										
6,602,201	D475,138	6,561,986								
D471,281	D468,433									

<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: Erin O'Brien Internal Address: GRAY CARY WARE & FREIDENRICH 4365 Executive Drive, Suite 1100 San Diego, CA 92121-2133</p>	<p>6. Total number of applications and patents involved:</p> <p>7. Total fee (37 CFR 3.41) \$ 200.00 [X] Enclosed</p> <p>8. Deposit account number: Please debit any underpayment or credit any overpayment to the above deposit account.</p>
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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.

<p>Erin O'Brien Name of Person Signing</p>	<p><i>Erin O'Brien</i> Signature</p> <p>November 11, 2003 Date</p> <p>Total number of pages comprising cover sheet: [6]</p>
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Mail documents to be recorded with required cover sheet information to:
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Gray Cary\GT\6305907.2
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PATENT
REEL: 014675 FRAME: 0538

AMENDED AND RESTATED
INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Amended and Restated Intellectual Property Security Agreement is entered into as of September 14, 2003, by and between COMERICA BANK, successor by merger to Comerica Bank-California ("Bank") and CARDIODYNAMICS INTERNATIONAL CORPORATION, a California corporation ("Grantor").

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in that certain Amended and Restated Loan and Security Agreement by and between Bank and Grantor dated as of even date herewith, as amended from time to time (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to enter into the Loan Agreement, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in certain Copyrights, Trademarks and Patents to secure the obligations of Grantor under the Loan Agreement.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement and all other agreements now existing or hereafter arising between Grantor and Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Loan Agreement and under any other agreement now existing or hereafter arising between Grantor and Bank, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its Intellectual Property Collateral (including without limitation those Copyrights, Patents and Trademarks listed on Schedules A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof.

This security interest is granted in conjunction with the security interest granted to Bank under the Loan Agreement. The rights and remedies of Bank with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Bank as a matter of law or equity. Each right, power and remedy of Bank provided for herein or in the Loan Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Bank of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Bank, of any or all other rights, powers or remedies.

Grantor represents and warrants that Exhibits A, B, and C attached hereto set forth any and all intellectual property rights in connection to which Grantor has registered or filed an application with either the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

CARDIODYNAMICS INTERNATIONAL CORPORATION

Address of Grantor:

6175 Nancy Ridge Road, Suite 300
San Diego, CA 92121

Attn: Chief Financial Officer

By: 

Title: CFO

BANK:

COMERICA BANK, successor by merger to
Comerica Bank-California

Address of Bank:

9920 S. La Cienega Blvd., Suite 1401
Inglewood, CA 90301

Attn: Manager

By: 

Title: Vice President - Technology & Life Sciences

EXHIBIT A

Copyrights

Title

Registration Number

Registration Date

Initial
Here
[Handwritten signature]

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/Serial Number</u>	<u>Registration/Application Date</u>
Apparatus and method for determining cardiac output in a living subject	6,602,201	08/05/03
Electrode for use on a living subject with removable protective electrode carrier	D475,138	05/27/03
Method and apparatus for hemodynamic assessment including fiducial point detection	6,561,986	05/13/03
Electrode for use on a living subject	D471,281	03/04/03
Electrode for use on a living subject	D468,433	01/07/03
Non-invasive real time blood pressure measurement system*	4,343,314	08/10/82
System for therapeutic management of hemodynamic state of patient*	5,103,828	04/14/92
Noninvasive continuous cardiac output monitor*	4,450,527	05/22/84
Espophageal electrode array for electrical bioimpedance measurement*	4,836,214	06/06/89
Diastolic clamp for bioimpedance measuring device*	4,870,578	09/26/89
Noninvasive continuous mean arterial blood pressure monitor*	4,807,638	02/28/89

*subject of Bank's recorded security interest at the US Patent and Trademark Office



EXHIBIT C

Trademarks

<u>Description</u>	<u>Registration/Application Number</u>	<u>Registration/Application Date</u>
The sixth vital sign	78/288,236	08/15/03
Bioztect	2,598,941	07/23/02
Z care	2,324,026	02/29/00
Z marc	2,435,659	03/13/01
Bioz.sim	2,419,598	01/09/01
Bioz.com	2,327,215	03/07/00
Disq	2,547,569	03/12/02
Bioz	2,238,595	04/13/99

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RECORDED: 11/11/2003

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