

**TRADEMARK ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
World Heart Inc.		12/11/2007	CORPORATION: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	ABIOMED, Inc.		
<b>Street Address:</b>	22 Cherry Hill Drive		
<b>City:</b>	Danvers		
<b>State/Country:</b>	MASSACHUSETTS		
<b>Postal Code:</b>	01923		
<b>Entity Type:</b>	CORPORATION: DELAWARE		
<b>PROPERTY NUMBERS Total: 2</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Serial Number:</b>	78571469	PEDIAFLOW	
<b>Serial Number:</b>	78937087	LEVACOR	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	(617)832-7000		
	<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>		
<b>Phone:</b>	617.832.1000		
<b>Email:</b>	ustrademark@foleyhoag.com		
<b>Correspondent Name:</b>	Charles Weinstein, Esq., Foley Hoag LLP		
<b>Address Line 1:</b>	155 Seaport Boulevard		
<b>Address Line 4:</b>	Boston, MASSACHUSETTS 02210		
<b>ATTORNEY DOCKET NUMBER:</b>	21524-76		
<b>NAME OF SUBMITTER:</b>	Linda Casey, Sr. Paralegal		
<b>Signature:</b>	/Linda Casey/		
<b>Date:</b>	12/20/2007		

CH \$65.00 78571469

**Total Attachments: 13**

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of December 11, 2007, is made by World Heart Inc. (“Borrower”), in favor of ABIOMED, Inc. (the “Lender”).

WITNESSETH:

WHEREAS, pursuant to the Purchase Agreement, dated as of December 11, 2007 (as amended, restated, supplemented or otherwise modified from time to time, the “Purchase Agreement”), among the Borrower, the Parent and the Lender, the Lender has agreed to make a loan to the Borrower upon the terms and subject to the conditions set forth therein;

WHEREAS, the Borrower has agreed, pursuant to a Security Agreement dated as of December 11, 2007 herewith in favor of the Lender (the “Security Agreement”), to grant a security interest in all assets to the Lender to secure payment of the Obligations of the Borrower;

NOW, THEREFORE, in consideration of the premises and to induce the Lender to enter into the Purchase Agreement and to make a loan to the Borrower thereunder, the Borrower hereby agrees with the Lender as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Security Agreement.

Section 2. Grant of Security Interest in Intellectual Property Collateral. The Borrower, as collateral security for the prompt and complete payment and performance when due under the terms of the Note, of the Secured Obligations, hereby mortgages, pledges and hypothecates to the Lender and grants to the Lender a Lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of the Borrower (the “Intellectual Property Collateral”):

(a) Copyrights.

(i) all of its Copyrights and all IP Licenses providing for the grant by or to the Borrower of any right under any Copyright, including, without limitation, those referred to on Schedule 1A hereto;

(ii) all renewals, reversions and extensions of the foregoing;

(iii) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof, other than, in each case, with respect to Excluded Property.

(b) Patents.

(i) all of its Patents and all IP Licenses providing for the grant by or to the Borrower of any right under any Patent, including, without limitation, those referred to on Schedule 1B hereto;

(ii) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing;

(iii) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof, other than, in each case, with respect to Excluded Property.

(c) Trademarks.

(i) all of its Trademarks and all IP Licenses providing for the grant by or to the Borrower of any right under any Trademark, including, without limitation, those referred to on Schedule 1C hereto;

(ii) all renewals and extensions of the foregoing;

(iii) all goodwill of the business connected with the use of, and symbolized by, each such Trademark; and

(iv) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof, other than, in each case, with respect to Excluded Property.

Section 3. Security Agreement. The security interest granted pursuant to this Intellectual Property Security Agreement is granted in conjunction with the security interest granted to the Lender pursuant to the Security Agreement and the Borrower hereby acknowledges and agrees that the rights and remedies of the Lender with respect to the security interest in the Intellectual Property Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 4. Borrower Remains Liable. The Borrower hereby agrees that, anything herein to the contrary notwithstanding, the Borrower shall assume full and complete responsibility for the prosecution, defense, enforcement or any other reasonably necessary or desirable actions in connection with their Intellectual Property Collateral and IP Licenses subject to a security interest hereunder.

Section 5. Counterparts. This Intellectual Property Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

Section 6. Governing Law. This Intellectual Property Security Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

IN WITNESS WHEREOF, the Borrower has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

WORLD HEART INC.

By:   *Jack S. Jaramilla*    
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ACCEPTED AND AGREED  
as of the date first above written:

ABIOMED, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

[INTELLECTUAL PROPERTY SECURITY AGREEMENT]

TRADEMARK

REEL: 003683 FRAME: 0484

IN WITNESS WHEREOF, the Borrower has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

WORLD HEART INC.

By: \_\_\_\_\_  
Name:  
Title:

ACCEPTED AND AGREED  
as of the date first above written:

ABIOMED, INC.

By: Michael R. Mungie  
Name: Mike Mungie  
Title: CEO

[INTELLECTUAL PROPERTY SECURITY AGREEMENT]

**SCHEDULE 1A  
TO  
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

A. REGISTERED COPYRIGHTS

None

B. COPYRIGHT APPLICATIONS

None

C. IP LICENSES

None

**SCHEDULE 1B  
TO  
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

**A. REGISTERED PATENTS**

<b>Current Owner/ Assignee of Record</b>	<b>Title</b>	<b>Jurisdiction</b>	<b>Patent Number</b>	<b>Issue/ Grant Date</b>	<b>Comments</b>
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	US	6,074,180	6/13/00	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA)
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Electromagnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	US	6,302,661	10/16/01	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA)
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Pump having a magnetically suspended rotor with one axis of control	US	6,394,769	5/28/02	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA)
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pump Apparatus and Method	US	6,595,762	Issued: 7/22/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA)
World Heart Inc/ World Heart Corp	Method and System for Positioning a Movable Body in a Magnetic Bearing System	US	6,879,126	Issued 4/12/05	
World Heart Inc/ World Heart Corp	Rotary blood pump diagnostics and cardiac output controller	US	6,949,066	Issued 9/27/05	
World Heart Inc/ World Heart Corp	Electrosurgical electrode with a conductive, non- stick coating	US	5,925,043	7/20/99	No material value
World Heart Inc/ World Heart Corp	Method and apparatus for providing a conductive, amorphous non-stick coating	US	6,270,831	8/7/01	No material value



Current Owner/ Assignee of Record	Title	Jurisdiction	Patent Number	Issue/ Grant Date	Comments
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Canada	2253435	4/11/06	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Australia	766439	1/29/04	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	France	0897476	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Germany	DE 697 25 565.4	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Ireland	0897476	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Netherlands	0897476	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	United Kingdom	0897476	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner

Current Owner/ Assignee of Record	Title	Jurisdiction	Patent Number	Issue/ Grant Date	Comments
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Austria	0897476	10/15/03	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Hybrid Magnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Australia	735578	10/25/01	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable Centrifugal Blood Pump with Hybrid Magnetic Bearings	Canada	2,330,048	4/20/04	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Reassignment application erroneously listed only Univ. of VA Patent Foundation
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable Centrifugal Blood Pump with Hybrid Magnetic Bearings	Australia	741418	3/14/02	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Reassignment application erroneously listed only Univ. of VA Patent Foundation

B. PATENT APPLICATIONS

Current Owner/ Applicant of Record	Title	Jurisdiction	Application Number	Filing Date	Comments
World Heart Inc	Single sac ventricular assist device	US	11/450,004	6/9/2006	
World Heart Inc	Electromagnetic drive for a ventricular assist device	US	11/449,973	6/8/2006	
World Heart Inc	Single sac ventricular assist device	EP	06784737.6	6/9/2006	
World Heart Inc	Single sac ventricular assist device	PCT	PCT/US06/2264 4	6/9/2006	
World Heart Inc	Electromagnetic drive for a ventricular assist device	EP	06772785.9	6/9/2006	
World Heart Inc.	Electromagnetic drive for a ventricular assist device	PCT	PCT/US06/2260 7	6/9/2006	
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable blood pump with hybrid magnetic bearings	US	09/673,922 CON of 6,074,180	4/22/99 New Filing Date: 8/24/01	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Reassignment application erroneously listed only Univ. of VA Patent Foundation
World Heart Inc/ World Heart Corp	Remote cannulation apparatus and method	US	10/186,307	6/28/02 Provisional Filed 6/29/01	
World Heart Inc/ World Heart Corp	Low profile inlet for an implantable blood pump	US	10/171,458	Filed 6/13/02	
World Heart Inc/ World Heart Corp	Endoscopic cannulation apparatus and method	US	10/370,018 CIP on 10/186,307 PRV 60/301,795	Filed 2/20/03	
World Heart Inc/ World Heart Corp	Methods and system for determining a viscosity of a fluid	US	11/138,041 CIP on 6,949,066	Filed 5/26/05	
World Heart Inc.	Wearable VAD controller reserve battery	US	60/933,607	Provisional filed 6/6/07	Assignment not filed as of 12/7/07

Current Owner/ Applicant of Record	Title	Jurisdiction	Application Number	Filing Date	Comments
World Heart Inc.	Implantable VAD with replaceable percutaneous cable	US	60/933,606	Provisional filed 6/6/07	Assignment not filed as of 12/7/07
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable centrifugal blood pump with hybrid magnetic bearings	US	11/925,294 CIP on 09/673,922	10/26/07	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Assignment not filed as of 12/7/07
World Heart Inc/ World Heart Corp Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Electromagnetically Suspended and Rotated Centrifugal Pumping Apparatus and Method	Japan	2001-543912, PCT/US00/3341 5	12/8/00	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Foreign office may still reflect MedQuest as owner
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable Centrifugal Blood Pump with Hybrid Magnetic Bearings	Europe	9921446.3	4/22/99	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Reassignment application erroneously listed only Univ. of VA Patent Foundation
World Heart Inc Univ. of Utah Research Foundation Univ. of VA Patent Foundation	Implantable Centrifugal Blood Pump with Hybrid Magnetic Bearings	Japan	PCT/US99?0887 0	4/22/99	Exclusive licenses from co-inventors (Univ of Utah, Univ of VA) Reassignment application erroneously listed only Univ. of VA Patent Foundation
World Heart Inc/ World Heart Corp	Medquest Low Profile Inlet for an Implantable Blood Pump	Europe	03731429.1	5/29/03	Foreign office may still reflect MedQuest as owner

Current Owner/ Applicant of Record	Title	Jurisdiction	Application Number	Filing Date	Comments
World Heart Inc/ World Heart Corp	Medquest Rotary Blood Pump Diagnostics and Cardiac Output Controller	Canada	2,506,698	8/21/03	Foreign office may still reflect MedQuest as owner
World Heart Inc/ World Heart Corp	Medquest Rotary Blood Pump Diagnostics and Cardiac Output Controller	Europe	03755746.9	8/21/03	Foreign office may still reflect MedQuest as owner

C. IP LICENSES

Name of Agreement	Parties	Date	Patents
License Agreement  Assignment, Assumption and Amendment Agreement	University of Utah Research Foundation and MedQuest Products, Inc  University of Utah Research Foundation, MedQuest Products, Inc and World Heart Corp	3/1/99  6/8/05	6,074,180 6,302,661 6,394,769 6,595,762
License Agreement  Consent to Assign and License Agreement	Virginia Patent Foundation and MedQuest Products, Inc  Virginia Patent Foundation, MedQuest Products, Inc and World Heart Corp	3/31/99  7/18/05	6,074,180 6,302,661 6,394,769 6,595,762
License Agreement  Assignment, Assumption and Amendment Agreement	University of Pittsburgh and MedQuest Products, Inc  University of Pittsburgh and MedQuest Products, Inc and World Heart Corp	2/13/02  7/11/05	6,015,272 6,244,835* 6,447,265 6,447,266* 5,888,242 6,066,086* * Some question exists re. U of Pitt's rights to these patents
Amended & Restated TET License Agreement	Ottawa Heart Institute Research Corporation and World Heart Corp.	9/28/07	5,350,413

**SCHEDULE 1C  
TO  
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

A. REGISTERED TRADEMARKS

None

B. TRADEMARK APPLICATIONS

Current Owner/ Applicant of Record	Mark	Jurisdiction	Application Number	Filing Date	Comments
World Heart Inc/ MedQuest Products, Inc.	PEDIAFLOW	US	78/571,469	2/21/2005	
World Heart Inc.	LEVACOR	US	78/937,087	7/25/2006	

C. IP LICENSES

None