

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM427706

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Formerly	Execution Date	Entity Type
Harvard Bioscience, Inc.		03/29/2013	Corporation: DELAWARE
FKAUBI, Inc.		03/29/2013	Corporation: DELAWARE
FKA GSI US, Inc.		03/29/2013	Corporation:
Cartesian Technologies, Inc.		03/29/2013	Corporation:
Genomic Solutions Canada, Inc.		03/29/2013	Corporation: CANADA
Hofer, Inc.		03/29/2013	Corporation: DELAWARE
KD Scientific, Inc.		03/29/2013	Corporation: MASSACHUSETTS
Biochrom US, Inc.		03/29/2013	Corporation: DELAWARE
Warner Instruments LLC		03/29/2013	Limited Liability Company:
Denville Scientific, Inc.		03/29/2013	Corporation:
Coulbourn Instruments, LLC		03/29/2013	Limited Liability Company:
Triangle Biosystems, Inc.		03/29/2013	Corporation:

**RECEIVING PARTY DATA**

<b>Name:</b>	Bank of America, N.A.
<b>Street Address:</b>	100 North Tryon Street
<b>City:</b>	Charlotte
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	28255
<b>Entity Type:</b>	National Banking Association: UNITED STATES

**PROPERTY NUMBERS Total: 39**

Property Type	Number	Word Mark
<b>Registration Number:</b>	1994144	DYNA QUANT
<b>Registration Number:</b>	2663974	RUBY
<b>Registration Number:</b>	2574351	READY-TO-RUN
<b>Registration Number:</b>	1946172	HOEFER
<b>Registration Number:</b>	1425327	THE STURDIER
<b>Registration Number:</b>	3128076	CALIBER
<b>Registration Number:</b>	3259250	ULTIMA

TRADEMARK

Property Type	Number	Word Mark
Registration Number:	4398632	CENTRIFAN
Registration Number:	2313868	ENHANCER
Registration Number:	2493062	GENETRODES
Registration Number:	2223723	BTX
Registration Number:	0826093	CPK
Registration Number:	2433199	BIOCHROM
Registration Number:	1574413	STRONGHOLD
Registration Number:	3901596	BTXPRESS
Registration Number:	1869303	CMA/MICRODIALYSIS
Registration Number:	2273647	TRU SCAN
Registration Number:	4765382	HA
Registration Number:	4851881	HB
Registration Number:	2547737	GRAPHIC STATE
Registration Number:	2925160	
Registration Number:	3048658	COULBOURN
Registration Number:	2970145	CI
Registration Number:	4461001	BIODROP SO SIMPLE, YOU'LL WONDER WHY NO-
Registration Number:	4461000	BIODROP
Registration Number:	3570673	NANOVUE
Registration Number:	4761064	SIMPLINANO
Registration Number:	4835210	CMA
Registration Number:	3827335	DENVILLE
Registration Number:	3799122	EZ RACK
Registration Number:	3799447	HYBLOT
Registration Number:	3799123	SHARP
Registration Number:	4157593	ADAGIO
Registration Number:	4157594	EZ PRO
Registration Number:	4058629	PHD ULTRA
Registration Number:	4159849	LEGATO
Registration Number:	4554285	CARDIOXPRESS
Registration Number:	4533206	STIMWARE
Registration Number:	4695392	TBSI

**CORRESPONDENCE DATA**

Fax Number: 6173453299

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

Phone: (617) 345-3000

Email: mschepper@burnslev.com

**Correspondent Name:** Marlo Schepper Grolnic  
**Address Line 1:** Burns & Levinson LLP  
**Address Line 2:** 125 Summer Street  
**Address Line 4:** Boston, MASSACHUSETTS 02110

**ATTORNEY DOCKET NUMBER:** 43363.0

**NAME OF SUBMITTER:** Marlo Schepper Grolnic

**SIGNATURE:** /Marlo Schepper Grolnic/

**DATE SIGNED:** 05/16/2017

**Total Attachments: 10**

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NOTICE  
OF  
GRANT OF SECURITY INTEREST  
IN  
TRADEMARKS

United States Patent and Trademark Office

Ladies and Gentlemen:

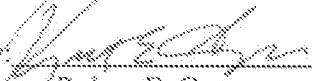
Please be advised that pursuant to the Security and Pledge Agreement dated as of March 29, 2013 (as amended, modified, extended, restated, renewed, replaced, or supplemented from time to time, the "Agreement") and among the Grantors party thereto (each an "Grantor" and collectively, the "Grantors") and Bank of America, N.A., as administrative agent (the "Administrative Agent") for the Secured Parties referenced therein, the undersigned Grantors have granted a continuing security interest in and continuing lien upon the trademarks and trademark applications shown on Schedule 1 attached hereto to the Administrative Agent for the ratable benefit of the Secured Parties.

The undersigned Grantors and the Administrative Agent, on behalf of the Secured Parties, hereby acknowledge and agree that the security interest in the foregoing trademarks and trademark applications (a) may only be terminated in accordance with the terms of the Agreement and (b) is not to be construed as an assignment of any trademark or trademark application.

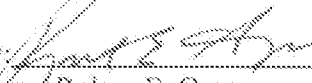
*[Signature pages follow.]*

Very truly yours,

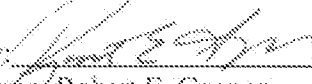
**HARVARD BIOSCIENCE, INC.**

By:   
Name: Robert E. Gagnon  
Title: Chief Financial Officer

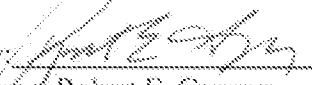
**FKAUBL, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer


**FKA GSLUS, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer

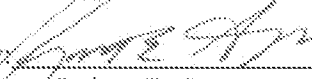
**CARTESIAN TECHNOLOGIES, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer


**GENOMIC SOLUTIONS CANADA, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer

**HOEFER, INC.**

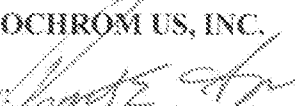
By:   
Name: Robert E. Gagnon  
Title: Treasurer

**KD SCIENTIFIC, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer

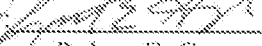
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**BIOCHROM US, INC.**

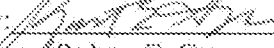
By:   
Name: Robert E. Gagnon  
Title: Treasurer

**WARNER INSTRUMENTS LLC**

By: Harvard Bioscience, Inc., its sole member

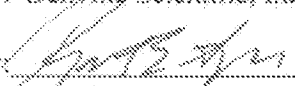
By:   
Name: Robert E. Gagnon  
Title: Chief Financial Officer

**DENVILLE SCIENTIFIC, INC.**

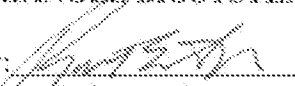
By:   
Name: Robert E. Gagnon  
Title: Treasurer

**COULBOURN INSTRUMENTS, LLC**

By: Denville Scientific, Inc., its sole member

By:   
Name: Robert E. Gagnon  
Title: Treasurer

**TRIANGLE BIOSYSTEMS, INC.**

By:   
Name: Robert E. Gagnon  
Title: Treasurer

[Signature Page to Notice of Security Interest in Trademarks]

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Administrative Agent

By: *Renee Marion*

Name: Renee Marion

Title: Assistant Vice President

[Signature Page to Notice of Security Interest in Trademarks]

TRADEMARK

REEL: 006059 FRAME: 0334

Schedule I



HARVARD BIOSCIENCE, INC.  
SUMMARY OF TRADEMARKS

US TRADEMARKS	OWNER	REGISTRATION/ FILING DATE	STATUS	APPLICATION/ REGISTRATION NO.	OWNED OR LICENSED
DYNA QUANT	HOEFER, INC.	August 13, 1996	LAPSED	1,994,144	OWNED
RUBY	HOEFER, INC.	December 17, 2002	ACTIVE	2,683,974	OWNED
READY-TO-RUN	HOEFER, INC.	May 28, 2002	LAPSED	2,574,351	OWNED
HOEFER	HOEFER, INC.	January 9, 1996	ACTIVE	1,946,172	OWNED
THE STURDIER	HOEFER, INC.	January 13, 1987	LAPSED	1,425,327	OWNED
CALIBER	HOEFER, INC.	August 8, 2006	LAPSED	3,128,076	OWNED
ULTIMA	HOEFER, INC.	July 3, 2007	ACTIVE	3,259,250	OWNED
CENTRIFAN	HARVARD BIOSCIENCE, INC.	September 10, 2013	ACTIVE	4,398,632	OWNED
ENHANCER	HARVARD BIOSCIENCE, INC.	February 1, 2000	ACTIVE	2,313,868	OWNED
GENETRODES	HARVARD BIOSCIENCE, INC.	September 25, 2001	ACTIVE	2,493,062	OWNED
BTX	HARVARD BIOSCIENCE, INC.	February 16, 1999	ACTIVE	2,223,723	OWNED
CPK	HARVARD BIOSCIENCE, INC.	March 21, 1967	ACTIVE	0,826,093	OWNED
BIOCHROM	HARVARD BIOSCIENCE, INC.	March 6, 2001	ACTIVE	2,433,199	OWNED
STRONGHOLD	HARVARD BIOSCIENCE, INC.	January 2, 1990	ACTIVE	1,574,413	OWNED
BTXPRESS	HARVARD BIOSCIENCE, INC.	January 4, 2011	ACTIVE	3,901,596	OWNED
CMA MICRODIALYSIS	HARVARD BIOSCIENCE, INC.	December 27, 1994	LAPSED	1,869,903	OWNED
TRU SCAN	Coulbourn Instruments, LLC	August 31, 1999	ACTIVE	2,273,647	OWNED
HA LOGO	HARVARD BIOSCIENCE, INC.	June 30, 2015	ACTIVE	4,765,382	OWNED
HB LOGO	HARVARD BIOSCIENCE, INC.	November 10, 2015	ACTIVE	4,851,881	OWNED
Graphic State [Gerbil design]	Coulbourn Instruments, LLC	March 12, 2002	ACTIVE	2,547,737	OWNED
Coulbourn	Coulbourn Instruments, LLC	February 8, 2005	LAPSED	2,925,160	OWNED
Coulbourn	Coulbourn Instruments, LLC	January 24, 2006	ACTIVE	3,048,658	OWNED
Coulbourn	Coulbourn Instruments, LLC	July 19, 2005	ACTIVE	2,970,145	OWNED
BIODROP so simple, you'll wonder why has done it before	Biochrom Limited	October 11, 2012	ACTIVE	4,461,001	OWNED
BIODROP logo	Biochrom Limited	January 7, 2014	ACTIVE	4,461,000	OWNED
GENEQUANT	Biochrom Limited	June 24, 2008	ACTIVE	3,454,092	OWNED
MULTIREAD	Biochrom Limited	April 7, 2009	LAPSED	3,602,685	OWNED
NANOVue	Biochrom Limited	February 3, 2009	ACTIVE	3,570,673	OWNED
SIMPLINANO	Biochrom Limited	June 23, 2015	ACTIVE	4,761,064	OWNED
CMA LOGO	CMA Microdialysis AB	October 20, 2015	ACTIVE	4,835,210	OWNED
"SPOT" THE MOUSE	Coulbourn Instruments, LLC	February 8, 2005	LAPSED	2,925,160	OWNED
CI LOGO	Coulbourn Instruments, LLC	July 19, 2005	LAPSED	2,970,145	OWNED
TRU SCAN	Coulbourn Instruments, LLC	August 31, 1999	ACTIVE	2,273,647	OWNED
DENVILLE	Denville Scientific, Inc.	August 3, 2010	ACTIVE	3,827,335	OWNED
EZ RACK	Denville Scientific, Inc.	June 8, 2010	ACTIVE	3,799,412	OWNED
HYBLOT	Denville Scientific, Inc.	June 8, 2010	ACTIVE	3,799,447	OWNED
SHART	Denville Scientific, Inc.	June 8, 2010	ACTIVE	3,499,123	OWNED
ADAGIO	Harvard Apparatus, Inc.	June 12, 2010	ACTIVE	4,157,593	OWNED
EZ PRO	Harvard Apparatus, Inc.	June 12, 2010	ACTIVE	4,157,594	OWNED
PHD ULTRA	Harvard Apparatus, Inc.	November 22, 2011	ACTIVE	4,058,629	OWNED
BIOCHROM	Biochrom Limited	November 17, 2009	ACTIVE	3,712,169	OWNED
MULTIREAD	Biochrom Limited	April 7, 2009	ACTIVE	3,602,685	OWNED

FOREIGN TRADEMARKS	OWNER	REGISTRATION/ FILING DATE	STATUS	APPLICATION/ REGISTRATION NO. (Filing office)	OWNED OR LICENSED
GENEQUANT	Biochrom Limited	June 24, 2008	ACTIVE	3454092	OWNED
LEGATO	Harvard Apparatus, Inc.	June 19, 2012	ACTIVE	4159849	OWNED
Cardio Xpress	Multi Channel Systems GMBH	June 24, 2014	ACTIVE	4554285	OWNED
HOEFFER ULTIMA HOEFFER HOEFFER HOEFFER HOEFFER ISOPRIME	HOEFFER, INC. HOEFFER, INC. HOEFFER, INC. HOEFFER, INC. HOEFFER, INC. HOEFFER, INC. HOEFFER, INC.	December 14, 2004 April 19, 2006 March 13, 1996 March 1, 2006 October 18, 1996 March 7, 1997	ACTIVE LAPSED ACTIVE APPLICATION LAPSED LAPSED	867301 (WIPO) 885629 (WIPO) 0594531 (BX) 004197191 (Europe - OHIM) VR 1996 05829 (Denmark) 322214 (Sweden)	OWNED OWNED OWNED OWNED OWNED OWNED

READY-TO-RUN	HOEFFER, INC.	May 25, 2001	ACTIVE				OWNED
HOEFFER	HOEFFER, INC.	August 30, 1996	ACTIVE	346492 (Sweden)			OWNED
HOEFFER	HOEFFER, INC.	January 10, 2005	ACTIVE	39612466.6 (Germany)			OWNED
HOEFFER	HOEFFER, INC.	December 14, 1999	ACTIVE	968461 (Mexico)			OWNED
HOEFFER	HOEFFER, INC.	December 1, 2005	ACTIVE	TMA520533 (Canada)			OWNED
HOEFFER	HOEFFER, INC.	March 31, 2005	ACTIVE	1403064 (India)			OWNED
HOEFFER	HOEFFER, INC.	March 18, 1996	ACTIVE	KOR248345 (Thailand)			OWNED
HOEFFER	HOEFFER, INC.	July 16, 2008	ACTIVE	704653 (Australia)			OWNED
HOEFFER	HOEFFER, INC.	December 22, 2004	ACTIVE	01317951			OWNED
HOEFFER	HOEFFER, INC.	December 23, 2004	ACTIVE	300342297 (Hong Kong)			OWNED
RUBY	HOEFFER, INC.	August 14, 2002	ACTIVE	723357 (New Zealand)			OWNED
RUBY	HOEFFER, INC.	May 17, 2000	ACTIVE	TMA565778 (Canada)			OWNED
RUBY	HOEFFER, INC.	May 17, 2000	ACTIVE	001660141 (CTM EU)			OWNED
READY-TO-RUN	HOEFFER, INC.	April 26, 2002	ACTIVE	2232634 (UK)			OWNED
HOEFFER	HOEFFER, INC.	March 6, 1998	LAPSED	TMA560898 (Canada)			OWNED
HOEFFER	HOEFFER, INC.	October 22, 2008	ACTIVE	4120690 (Japan)			OWNED
HOEFFER	HOEFFER, INC.	December 22, 2004	ACTIVE	410000392970000 (South Korea)			OWNED
HOEFFER	HOEFFER, INC.	October 2, 1997	ACTIVE	177091 (Israel)			OWNED
HOEFFER	HOEFFER, INC.	August 11, 1997	ACTIVE	40-03771440000 (Korea)			OWNED
HOEFFER	HOEFFER, INC.	February 3, 2012	ACTIVE	40-0372273 (Korea)			OWNED
BiDroP (UK trademark)	Biochrom Limited	May 30, 2012	Current	2605308			OWNED
BiDroP (European trademark)	Biochrom Limited		Current	EU 010924314			OWNED

Biochrom Austria	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Protection granted	347130			OWNED
Biochrom Benelux	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Protection granted	347130			OWNED
Biochrom China	Biochrom Limited	19-Nov-2007	Protection granted	964706			OWNED
Multiread China	Biochrom Limited	13-Dec-2007	Protection granted	952440			OWNED
Genequant Europe	Biochrom Limited	03-Jul-2007	Protection granted	932355			OWNED
Ultrospec France	Biochrom Limited	04-Sep-1991	Granted	306457			OWNED
Biochrom Germany	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Protection granted	347130			OWNED
Ultrospec Germany	Biochrom Limited	02-Oct-1981	Granted	1031403			OWNED
Biochrom Hungary	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Protection granted	347130			OWNED
Biochrom Spain	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Granted	347130			OWNED
Genequant Spain	Biochrom Limited	03-Jul-2007	Granted	932355			OWNED
Multiread Spain	Biochrom Limited	13-Dec-2007	Granted	952440			OWNED
Biochrom Italy	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Granted	347130			OWNED
Biochrom Japan	Biochrom Limited	19-Nov-2007	Application allowed	964706			OWNED
Genequant Japan	Biochrom Limited	03-Jul-2007	Protection granted	932355			OWNED
Multiread Japan	Biochrom Limited	13-Dec-2007	Protection granted	952440			OWNED
Ultrospec Japan	Biochrom Limited	27-Sep-1996	Granted	1714199			OWNED
Biochrom Switzerland	HARVARD BIOSCIENCE, INC.	11-Jul-1968	Protection granted	347130			OWNED
Biochrom UK	Biochrom Limited	18-May-2007	Granted	2456030			OWNED
Genequant UK	Biochrom Limited	24-Dec-1992	Granted	1522174			OWNED
Multiread UK	Biochrom Limited	03-Jul-2007	Granted	2460239			OWNED
Novaspec UK	Biochrom Limited	26-Jul-1984	Granted	1223574			OWNED
Ultrospec UK	Biochrom Limited	30-Sep-1981	Granted	1182119			OWNED
SIMPLINANO	Biochrom Limited	17-Mar-2014	Active	1204180			OWNED

SIMPLINANO	Biochron Limited	07-Nov-2013	Active		OWNED
SIMPLINANO	Biochron Limited	08-Nov-2013	Active		OWNED
SIMPLINANO	Biochron Limited	05-12-2014	Active	401073987	OWNED
NANOVUE	Biochron Limited	28-Mar-2010	Active	6424006	OWNED
NANOVUE	Biochron Limited	18-Sep-2008	Active	006480842	OWNED
BTX	HARVARD BIOSCIENCE, INC.	09-Jun-1998	Active	TMA495729	OWNED
HA LOGO	HARVARD BIOSCIENCE, INC.	21-Feb-2014	Active	1664445	OWNED
HB LOGO	HARVARD BIOSCIENCE, INC.	21-Feb-2014	Active	TMA925286	OWNED
Libra	Biochron Limited	12-Mar-2003	Active	2295062	OWNED
Spectrawave	Biochron Limited	15-Jul-2002	Active	2305297	OWNED
WPA	Biochron Limited	15-Jul-2002	Active	2305298	OWNED
FLUOVAC	Biochron Limited	29-Jan-2001	Active	2291247	OWNED
BIOTOUGH	Biochron Limited	8-Mar-2012	Active	2613349	OWNED
EZVIN	Biochron Limited	3-Jan-2014	Active	012475786	OWNED
QuantMate	Biochron Limited	25-Oct-2013	Active	012256467	OWNED
GeneQuant Nano	Biochron Limited	13-Feb-2013	Active	011571965	OWNED
BiDropp So simple you'll wonder why no-one	Biochron Limited	31-May-2012	Active	2623119	OWNED
BTX	HARVARD BIOSCIENCE, INC.	17-Aug-1999	Active		OWNED
HA LOGO	HARVARD BIOSCIENCE, INC.	28-Feb-2014	Active	1210168	OWNED
HB LOGO	HARVARD BIOSCIENCE, INC.	28-Feb-2014	Active	1208742	OWNED
HAEMODYN	Hugo Sachs Elektronik – Harvard	09-Sep-1992	Active	591983	OWNED
HSE LOGO	Apparatus GmbH	21-Jun-1995	Active	639389	OWNED
PLUGSYS	Apparatus GmbH	02-Apr-1992	Active	586257	OWNED
PULMODYN	Hugo Sachs Elektronik – Harvard	09-Sep-1992	Active	591984	OWNED
PANLAB	Apparatus GmbH	28-Jan-1991	Active	566329	OWNED

Trademarks

StimWare is Registered Trademark of Triangle BioSystems, Inc. (Registration No. 4533206)

TBSI Logo is approved for Trademark of Triangle BioSystems, Inc. (Registration No. 4695392)