

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4284713

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
LENSAR, INC.		01/10/2017
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	PDL BIOPHARMA, INC.	
<b>Street Address:</b>	932 SOUTHWOOD BLVD.	
<b>Internal Address:</b>	ATTN: GENERAL COUNSEL	
<b>City:</b>	INCLINE VILLAGE	
<b>State/Country:</b>	NEVADA	
<b>Postal Code:</b>	89451	
<b>PROPERTY NUMBERS Total: 61</b>		
<b>Property Type</b>	<b>Number</b>	
Application Number:	11337127	
Patent Number:	8262646	
Application Number:	12217285	
Patent Number:	9180051	
Application Number:	12217295	
Application Number:	14874325	
Application Number:	12842870	
Patent Number:	8500723	
Patent Number:	8480659	
Patent Number:	8708491	
Application Number:	12509211	
Patent Number:	8617146	
Application Number:	14142255	
Application Number:	12840818	
Patent Number:	8758332	
Patent Number:	8382745	
Patent Number:	8465478	
Application Number:	13016593	
Patent Number:	8556425	

PATENT

Property Type	Number
Application Number:	13017499
Application Number:	13427130
Application Number:	13427149
Patent Number:	D695408
Patent Number:	D694890
Patent Number:	8801186
Application Number:	14335187
Application Number:	13435103
Application Number:	13427319
Application Number:	14728760
Application Number:	61859737
Application Number:	14444311
Application Number:	61859725
Application Number:	14444339
Application Number:	14444366
Application Number:	14224012
Application Number:	62148614
PCT Number:	US2010041324
PCT Number:	US2014048471
PCT Number:	US2010041286
PCT Number:	US2010042582
PCT Number:	US2011023117
PCT Number:	US2011023159
PCT Number:	US2011022859
PCT Number:	US2007001486
PCT Number:	US2007001262
PCT Number:	US2012030247
PCT Number:	US2007001353
PCT Number:	US2012031377
PCT Number:	US2012030059
PCT Number:	US2012030259
PCT Number:	US2010043255
PCT Number:	US2010043117
PCT Number:	US2007001312
PCT Number:	US2011056279
PCT Number:	US2015042381
Application Number:	12509454
Application Number:	15013360

Property Type	Number
Application Number:	15130845
PCT Number:	US2016027980
Application Number:	62393560
Application Number:	62319728

#### CORRESPONDENCE DATA

**Fax Number:** (949)475-4754

**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:** 949-451-3800

**Email:** skann@gibsondunn.com

**Correspondent Name:** STEPHANIE KANN

**Address Line 1:** 3161 MICHELSON DRIVE

**Address Line 2:** GIBSON, DUNN & CRUTCHER LLP

**Address Line 4:** IRVINE, CALIFORNIA 92612

**ATTORNEY DOCKET NUMBER:** 73748-00030

**NAME OF SUBMITTER:** STEPHANIE KANN

**SIGNATURE:** /stephanie kann/

**DATE SIGNED:** 02/21/2017

#### Total Attachments: 20

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## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT is entered into as of January 10, 2017, (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, this "Patent Security Agreement"), by Lensar, Inc., a Delaware corporation (herein referred to as "Grantor"), in favor of the Agent.

**WHEREAS**, the Grantor, having an address at 2800 Discovery Drive, Suite 100, Orlando, FL 32826, owns the letters patent and/or applications for letters patent of the United States of America more particularly described on Schedule 1-A annexed hereto as part hereof (the "Patents");

**WHEREAS**, the Grantor has entered into a Senior Secured Super Priority Debtor in Possession Security Agreement, dated as of January 10, 2017 (said Senior Secured Super Priority Debtor in Possession Security Agreement, as it may hereafter be amended, restated, amended and restated, supplemented or otherwise modified from time to time, being the "Security Agreement", the terms defined therein and not otherwise defined herein being used herein as therein defined) in favor of the Agent, for itself and the Lender party to the DIP Credit Agreement (in such capacity, the "Secured Party"); and

**WHEREAS**, pursuant to the Security Agreement, the Grantor has granted to Secured Party a security interest in all right, title and interest of Grantor in and to the Patents, to the extent applicable, in the United States Patent and Trademark Office or in any similar office or agency of the United States, any state thereof or any other country or any political subdivision thereof, all whether now or hereafter owned or licensable by Grantor, and all reissues, divisions, continuations, continuations-in-part, term restorations or extensions thereof, all Patent licenses and all proceeds of all of the foregoing, including, without limitation, any claims by Grantor against third parties for infringement thereof for the full term of the Patents, to secure the prompt payment and performance of the Loan Documents Obligations;

**NOW, THEREFORE**, for good and valuable consideration, receipt of which is hereby acknowledged, the Grantor does hereby further confirm, and put on the public record, its grant to Secured Party of a security interest in and mortgage on the Collateral to secure the prompt payment and performance of the Loan Document Obligations.

### Section 1. Grant of Security Interest in Patents.

Each Grantor hereby grants to the Agent a security interest and continuing lien on all of such Grantor's right, title and interest in, to and under the following, in each case whether owned or existing or hereafter acquired or arising and wherever located (collectively, the "Patent Collateral"): all United States and foreign patents and certificates of invention, or similar industrial property rights, including, but not limited to each patent referred to in Schedule 1-A hereto (as such schedule may be amended or supplemented from time to time), and with respect to any and all of the foregoing, (i) all applications therefor including the patent applications referred to in Schedule 1-A hereto (as such schedule may be amended or supplemented from time to time), (ii) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, and all patents and patent applications thereof undergoing inter partes review, post grant review, covered business method patent review, and derivation proceedings, (iii) all rights corresponding thereto throughout the world, (iv) all inventions and improvements described therein, (v) all rights to sue for past, present and future infringements thereof, (vi) all licenses, claims, damages, and

proceeds of suit arising therefrom, and (vii) all proceeds, payments and rights to payments arising out of the sale, lease, license, assignment, or other disposition thereof.

Section 2.      Security Agreement.

The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the security interests granted to the Agent pursuant to the Security Agreement and each Grantor hereby acknowledges and affirms that the rights and remedies of the Agent with respect to the security interest in the Patent Collateral made and granted hereby are supplemental of, and 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. In the event of any irreconcilable conflict between the terms of this Patent Security Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall control.

Section 3.      Grantor Remains Liable.

Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall assume responsibility for and control of the prosecution, defense, enforcement or any other necessary or desirable actions in such Grantor's reasonable business judgment in connection with their Patents subject to a security interest hereunder.

Section 4.      GOVERNING LAW.

THIS PATENT SECURITY AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK AND, TO THE EXTENT APPLICABLE, THE BANKRUPTCY CODE.

Section 5.      Counterparts.

This Patent Security Agreement may be executed in counterparts, each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Patent Security Agreement shall become effective when the Agent has received counterparts bearing the signatures of all parties hereto. Delivery of a signature page of this Patent Security Agreement by facsimile transmission or other electronic means shall be effective as delivery of a manually executed counterpart of such Patent Security Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the undersigned Grantor has duly executed or caused this Patent Security Agreement to be duly executed as of the date first set forth above.

**GRANTOR:**

**LENSAR, INC.,**  
a Delaware corporation

By: \_\_\_\_\_

Name: *Nick T. Curtis*  
Title: *CEO*

**AGENT:**

**PDL BIOPHARMA, INC.,**  
a Delaware corporation

By: \_\_\_\_\_

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

IN WITNESS WHEREOF, the undersigned Grantor has duly executed or caused this Patent Security Agreement to be duly executed as of the date first set forth above.

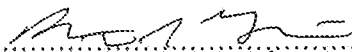
**GRANTOR:**

**LENSAR, INC.,**  
a Delaware corporation

By: .....  
Name:  
Title:

**AGENT:**

**PDL BIOPHARMA, INC.,**  
a Delaware corporation

By:  .....  
Name: Peter S. Garcia  
Title: VP + CFO

## Schedule 1-A to the PATENT SECURITY AGREEMENT

### U.S. and International Patents

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
US	System and Method for Treating the Structure of the Human Lens with a Laser	Appl. No. 11/337,127 Publ. No. 20070173794	1/20/2006		LENSAR, INC.	Pending
US	System and Method for Providing the Shaped Structural Weakening of the Human Lens with a Laser	Appl. No. 11/414,838 Patent No. 8,262,646	5/1/2006	9/11/2012	LENSAR, INC.	Issued
US	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 12/217,285 Publ. No. 20100004643	7/2/2008		LENSAR, INC.	Pending
US	System and Apparatus for Treating the Lens of an Eye	Appl. No. 11/414,819  Pat. No. 9,180,051	5/1/2006	11/10/2015	LENSAR, INC.	Issued
US	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 12/217,295 Publ. No. 20100004641	7/2/2008		LENSAR, INC.	Pending
US	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 14/874,325	10/2/2015		LENSAR, INC.	Pending
US	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. 12/842,870 Publ. No. 2010/0292678	7/23/2010		LENSAR, INC.	Pending
US	Liquid Filled Index Matching Device for Ophthalmic Laser Procedures	Appl. No. 12/509,021 Patent No. 8,500,723	7/24/2009	8/6/2013	LENSAR, INC.	Issued
US	Method and System for Removal and Replacement of Lens Material From the Lens of an Eye	Appl. No. 12/509,412 Patent No. 8,480,659	7/24/2009	7/9/2013	LENSAR, INC.	Issued



Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
US	Method and System for Removal and Replacement of Lens Material From the Lens of an Eye	Appl. No. 13/681,004 Patent No. 8,708,491	11/19/2012	4/29/2014	LENSAR, INC.	Issued
US	Method and System for Creating a Bubble Shield for Laser Lens Procedures	Appl. No. 12/509,211 Publ. No. 20100022996	7/24/2009		LENSAR, INC.	Abandoned
US	Laser System and Method for Correction of Induced Astigmatism	Appl. No. 12/831,859 Patent No. 8,617,146	7/7/2010	12/31/2013	LENSAR, INC.	Issued
US	Laser System and Method for Correction of Induced Astigmatism	Appl. No. 14/142,255 Pub. No. 20140155874A1	12/27/2013		LENSAR, INC.	Pending
US	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 12/840,818 Publ. No. 20110022035	7/21/2010		LENSAR, INC.	Pending
US	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. 12/831,783 Patent No. 8,758,332	7/7/2010	6/24/2014	LENSAR, INC.	Issued
US	Laser System and Method for Astigmatic Corrections in Association with Cataract Treatment	Appl. No. 12/831,845 Patent No. 8,382,745	7/7/2010	2/26/2013	LENSAR, INC.	Issued
US	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 12/843,685 Patent No. 8,465,478 Reexamination Certificate 8,465,478 C1	7/26/2010	6/18/2013	LENSAR, INC.	Issued Rexam Cert
US	Servo Controlled Docking Force Device for Use in Ophthalmic Applications	Appl. No. 13/016,593 Publ. No. 20110190739	1/28/2011		LENSAR, INC.	Abandoned
US	Purkinje Image-Based Alignment of Suction Ring in Ophthalmic Applications	Appl. No. 13/017,702 Pat No. 8,556,425	1/31/2011	10/15/2013	LENSAR, INC.	Issued
US	Placido Ring Measurement of Astigmatism Axis and Laser Marking of Astigmatism Axis	Appl. No. 13/017,499 Publ. No. 20110190740	1/31/2011		LENSAR, INC.	Abandoned

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
US	System and Method for Measuring and Correcting Astigmatism Using Laser Generated Corneal incisions	Appl. No. 13/427,130 Publ. No. 20120265181	3/22/2012		LENSAR, INC.	Pending
US	System and Method for Correcting Astigmatism Using Multiple Paired Arcuate Laser Generated Corneal Incisions	Appl. No. 13/427,149 Publ. No. 20120296321	3/22/2012		LENSAR, INC.	Pending
US	Laser System for Treatment of the Eye	Appl. No. 29/377,018 Patent No. D695,408	10/15/2010	12/10/2013	LENSAR, INC.	Issued
US	Laser System for Treatment of the Eye	Appl. No. 29/377,054 Patent No. D694,890	10/15/2010	12/3/2013	LENSAR, INC.	Issued
US	System and Method of Laser Scan Controlled Illumination of Structures Within an Eye	Appl. No. 13/273,653 Patent. No. 8,801,186	10/1/2011	8/12/2014	LENSAR, INC.	Issued
US	System and Method of Laser Scan Controlled Illumination of Structures Within an Eye	Appl. No. 14/335,187 Publ. No. 2015/0022779	7/18/2014		LENSAR, INC.	Allowed
US	System and Method for Laser Generated Corneal and Crystalline Lens Incisions Using a Variable F# Optical System with Aspheric Contact Interface to the Cornea or Rotating and Adaptive Optics	Appl. No. 13/435,103 Publ. No. 20120271286	3/30/2012		LENSAR, INC.	Pending
US	System and Method for Measuring Tilt in the Crystalline Lens for Laser Phaco Fragmentation	Appl. No. 13/427,319 Publ. No. 20120330290	3/22/2012		LENSAR, INC.	Pending
US	System and Method for Measuring Tilt	Appl. No. 14/728,760	6/2/2015		LENSAR, INC.	Pending

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
US	Second Pass Femtosecond Laser for Incomplete Laser Full or Partial Thickness Corneal Incisions	Appl. No. 61/859,737	7/29/2013		LENSAR, INC.	Expired
US	Second Pass Femtosecond Laser for Incomplete Laser Full or Partial Thickness Corneal Incisions	Appl. No. 14/444,311 Publ. No. 2015/0032091	7/28/2014		LENSAR, INC.	Pending
US	Patient Interface Device for Ophthalmic Laser Procedures	Appl. No. 61/859,725	7/29/2013		LENSAR, INC.	Expired
US	Patient Interface Device for Ophthalmic Laser Procedures	Appl. No. 14/444,339 Publ. No. 20150088175	7/28/2014		LENSAR, INC.	Pending
US	Iris Registration Method and System	Appl. No. 14/444,366 Publ. No. 20150105759	7/28/2014		LENSAR, INC.	Pending
US	Methods and Systems to Provide Excluded Defined Zones for Increasing Accommodative Amplitude	Appl. No. 14/224,012 Publ. No. 2014/0378955	3/24/2014		LENSAR, INC.	Pending
US	Laser Methods and Systems for Addressing Conditions of the Lens	Appl. No. 62/148,614	4/16/15		LENSAR, INC.	Expired
PCT	Laser System and Method for: Correction of Induced Astigmatism and Astigmatic Correction in Association with Cataract Treatment	Appl. No. PCT/US2010/041324 Publ. No. WO/2011/011205	7/8/2010		LENSAR, INC.	Completed
PCT	Patient Interface Device for Ophthalmic Laser Procedures	Appl. No. PCT/US2014/048471 Publ. No. WO/2015/017343	7/28/2014		LENSAR, INC.	Pending

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
AU	Laser System and Method for: Correction of Induced Astigmatism and Astigmatic Correction in Association with Cataract Treatment	Appl. No. 2010274172 Publ. No. AU2010274172	7/8/2010		LENSAR, INC.	Abandoned
CA	Laser System and Method for: Correction of Induced Astigmatism and Astigmatic Correction in Association with Cataract Treatment	Appl. No. 2769065 Publ. No. CA2769065	7/8/2010		LENSAR, INC.	Abandoned
CN	Laser System and Method for: Correction of Induced Astigmatism and Astigmatic Correction in Association with Cataract Treatment	Appl. No. 201080042338.3 Patent No. 201080042338.3	7/8/2010	12/10/2014	LENSAR, INC.	Issued
EPO	Laser System and Method for: Correction of Induced Astigmatism and Astigmatic Correction in Association with Cataract Treatment	Appl. No. 10802656.8 Publ. No. EP2456401	7/8/2010		LENSAR, INC.	Abandoned
EPO	Laser System for Reducing Astigmatism Induced From Cataract Therapy	Appl. No. 13185221.2 Publ. No. EP2676645	7/8/2010		LENSAR, INC.	Abandoned
JP	The Treatment of the Related Anticataractal and Causing the Laser System and Method for Correcting Astigmatic Astigmatism	Appl. No. 2012-521668 Publ. No. JP2013500057	7/8/2010		LENSAR, INC.	Abandoned
PCT	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. PCT/US2010/041286 Publ. No. WO/2011/011202	7/8/2010		LENSAR, INC.	Completed
AU	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. 2010274169 Publ. No. AU2010274169	7/8/2010		LENSAR, INC.	Abandoned

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
CA	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. 2769059 Publ. No. CA2769059	7/8/2010		LENSAR, INC.	Abandoned
CN	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. 201080042778.9 Patent No. 201080042778.9	7/8/2010	8/20/2014	LENSAR, INC.	Issued
EPO	Laser System and Method for Performing and Sealing Corneal Incisions in the Eye	Appl. No. 10802654.3 Publ. No. EP2456400	7/8/2010		LENSAR, INC.	Pending
JP	By Executing the Eye Keratotomy Angiotomy Sealing a Laser System and Method	Appl. No. 2012-521667 Publ. No. JP2013500056	7/8/2010		LENSAR, INC.	Abandoned
AU	Laser System for Treatment of the Eye	Appl. No. 11689/2011 Patent No. 336555	4/15/2011	5/16/2011	LENSAR, INC.	Issued
AU	Laser System for Treatment of the Eye	Appl. No. 11690/2011 Patent No. 336556	4/15/2011	5/16/2011	LENSAR, INC.	Issued
CA	Laser System for Treatment of the Eye	Appl. No. 140171 Patent No. 140171	4/14/2011	12/7/2011	LENSAR, INC.	Issued
CA	Laser System for Treatment of the Eye	Appl. No. 142171 Patent No. 142171	4/14/2011	12/7/2011	LENSAR, INC.	Issued
CN	Laser System for Treatment of the Eye	Appl. No. 201130076493.4 Patent No. 201130076493.4	4/15/2011	8/22/2012	LENSAR, INC.	Issued
EPO	Laser System for Treatment of the Eye	Appl. No. 001851445 Patent No. 001851445-0001	4/14/2011	4/14/2011	LENSAR, INC.	Issued
EPO	Laser System for Treatment of the Eye	Appl. No. 001851445-0002 Patent No. 001851445-0002	4/14/2011	4/14/2011	LENSAR, INC.	Issued

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
JP	Laser System for Treatment of the Eye	Appl. No. 8725/2011 Patent No. 1427246	4/15/2011	10/14/2011	LENSAR, INC.	Issued
JP	Laser System for Treatment of the Eye	Appl. No. 8726/2011 Patent No. 1427247	4/15/2011	10/14/2011	LENSAR, INC.	Issued
PCT	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. PCT/US2010/042582 Publ. No. WO/2011/011400	7/20/2010		LENSAR, INC.	Completed
AU	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 2010276360 Publ. No. AU2010276360	7/20/2010		LENSAR, INC.	Abandoned
CA	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 2769091	7/20/2010		LENSAR, INC.	Abandoned
CN	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 201080041721.7 Publ. No. 102625685A	7/20/2010		LENSAR, INC.	Pending
EPO	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 10802768.1 Patent No. EP2456402	7/20/2010	8/20/2014	LENSAR, INC.	Issued
France	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 10802768.1 Patent No. EP2456402	7/20/2010	8/20/2014	LENSAR, INC.	Issued
Germany	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 10802768.1 Patent No. EP2456402	7/20/2010	8/20/2014	LENSAR, INC.	Issued
Italy	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 10802768.1 Patent No. EP2456402	7/20/2010	8/20/2014	LENSAR, INC.	Issued
United Kingdom	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 10802768.1 Patent No. EP2456402	7/20/2010	8/20/2014	LENSAR, INC.	Issued
JP	Liquid Holding Interface Device for Ophthalmic Laser Procedures	Appl. No. 2012521729 Publ. No. JP2013500063	7/20/2010		LENSAR, INC.	Abandoned

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
PCT	Placido Ring Measurement of Astigmatism Axis and Laser Marking of Astigmatism Axis	Appl. No. PCT/US2011/023117 Publ. No. WO/2011/094666	1/31/2011		LENSAR, INC.	Completed
CN	Placido Ring Measurement of Astigmatism Axis and Laser Marking of Astigmatism Axis	Appl. No. 201180007921.5 Publ. No. CN102843956	1/31/2011		LENSAR, INC.	Abandoned
EPO	Placido Ring Measurement of Astigmatism Axis and Laser Marking of Astigmatism Axis	Appl. No. 11737806.7 Publ. No. EP2531090	1/31/2011		LENSAR, INC.	Abandoned
HK	Placido Ring Measurement of Astigmatism Axis and Laser Marking of Astigmatism Axis	Appl. No. 13101561.2	2/4/2013		LENSAR, INC.	Abandoned
PCT	Purkinjie Image-Based Alignment of Suction Ring in Ophthalmic Applications	Appl. No. PCT/US2011/023159 Publ. No. WO/2011/094678	1/31/2011		LENSAR, INC.	Completed
CN	Purkinjie Image-Based Alignment of Suction Ring in Ophthalmic Applications	Appl. No. 201180007877.8 Publ. No. CN102843955	1/31/2011		LENSAR, INC.	Abandoned
EPO	Purkinjie Image-Based Alignment of Suction Ring in Ophthalmic Applications	Appl. No. 11737813.3 Publ. No. EP2531089	1/31/2011		LENSAR, INC.	Pending
HK	Purkinjie Image-Based Alignment of Suction Ring in Ophthalmic Applications	Appl. No. 13101560.3	2/4/2013		LENSAR, INC.	Pending
PCT	Servo Controlled Docking Force Device for Use in Ophthalmic Applications	Appl. No. PCT/US2011/022859 Publ. No. WO/2011/094493	1/28/2011		LENSAR, INC.	Completed
CN	Servo Controlled Docking Force Device for Use in Ophthalmic Applications	Appl. No. 201180015126.0 Publ. No. CN102811685	1/28/2011		LENSAR, INC.	Abandoned

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
EPO	Servo Controlled Docking Force Device for Use in Ophthalmic Applications	Appl. No. 11737702.8 Publ. No. EP2528563	1/28/2011		LENSAR, INC.	Abandoned
HK	Servo Controlled Docking Force Device for Use in Ophthalmic Applications	Appl. No. 13101562.1	2/4/2013		LENSAR, INC.	Abandoned
PCT	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. PCT/US2007/001486 Publ. No. WO/2007/084694	1/19/2007		LENSAR, INC.	Converted
AU	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 2007207399	1/19/2007		LENSAR, INC.	Abandoned
CA	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 2637232	1/19/2007		LENSAR, INC.	Abandoned
CN	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 200780010007.X Patent No. 200780010007.X	1/19/2007	9/7/2011	LENSAR, INC.	Issued
CN	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 201110205299.0 Publ. No. 102335061A	1/19/2007		LENSAR, INC.	Pending
EPO	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 07718259.0 Publ. No. EP1981426	1/19/2007		LENSAR, INC.	Pending
JP	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. 2008-551425 Publ. No. JP2009523556	1/19/2007		LENSAR, INC.	Abandoned
MX	System and Apparatus for Delivering a Laser Beam to the Lens of an Eye	Appl. No. MX/a/2008/009407	7/21/2008		LENSAR, INC.	Abandoned
PCT	System and Apparatus for Treating the Lens of an Eye	Appl. No. PCT/US2007/001262 Publ. No. WO/2007/084579	1/18/2007		LENSAR, INC.	Completed
JP	System and Method, a Laser Irradiation Pattern of an Eye Lentis	Appl. No. JP2012521848 Publ. No. JP2013500078	7/23/2010		LENSAR, INC.	Abandoned



Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
PCT	System and Method for Correcting Astigmatism Using Multiple Paired Arcuate Laser Generated Corneal Incisions	Appl. No. PCT/US2012/030247 Publ. No. WO/2012/134979	3/23/2012		LENSAR, INC.	Completed
CN	System and Method for Correcting Astigmatism Using Multiple Paired Arcuate Laser Generated Corneal Incisions	Appl. No. 201280014253.3 Pub. No. CN103501687	3/23/2012		LENSAR, INC.	Pending
EPO	System and Method for Correcting Astigmatism Using Multiple Paired Arcuate Laser Generated Corneal Incisions	Appl. No. 12765501.7 Publ. No. 2688461	3/23/2012		LENSAR, INC.	Abandoned
PCT	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. PCT/US2007/001353 Publ. No. WO/2007/084627	1/19/2007		LENSAR, INC.	Completed
CA	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 2637206	1/19/2007		LENSAR, INC.	Abandoned
AU	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 2007207513	1/19/2007		LENSAR, INC.	Abandoned
CN	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 200780009762.6 Patent No. 20078001007.X	1/19/2007	9/19/2011	LENSAR, INC.	Issued

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
CN	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 201110314428X Patent No. 201110314428X	1/19/2007	6/4/2014	LENSAR, INC.	Issued
CN	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 201110314451.9 Patent No. 201110314451.9	10/11/2011	6/4/2014	LENSAR, INC.	Issued
EPO	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 07718200.4 Publ. No. EP1981454	1/19/2007		LENSAR, INC.	Pending
JP	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. 2008551393 Publ. No. JP2009523550	1/19/2007		LENSAR, INC.	Abandoned
MX	System and Method for Improving the Accommodative Amplitude and Increasing the Refractive Power of the Human Lens with a Laser	Appl. No. MX/a/2008/009406	7/21/2008		LENSAR, INC.	Abandoned
PCT	Laser Generated and Crystalline Lens Incisions	Appl. No. PCT/US2012/031377 Publ. No. WO/2012/135579	3/30/2012		LENSAR, INC.	Completed

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
CN	System and Method for Laser Generated Corneal and Crystalline Lens Incisions Using a Variable F# optical System with Aspheric Contact Interface to the Cornea or Rotating and Adaptive Optics	Appl. No. 201280017513.2 Publ. No. CN103974678	3/30/2012		LENSAR, INC.	Pending
EPO	System and Method for Laser Generated Corneal and Crystalline Lens Incisions Using a Variable F# optical System with Aspheric Contact Interface to the Cornea or Rotating and Adaptive Optics	Appl. No. 12765379.8 Publ. No. EP2695016	3/30/2012		LENSAR, INC.	Pending
PCT	System and Method for Measuring and Correcting Astigmatism Using Laser Generated Corneal Incisions	Appl. No. PCT/US2012/030059 Publ. No. WO/2012/134931	3/22/2012		LENSAR, INC.	Completed
CN	System and Method for Measuring and Correcting Astigmatism Using Laser Generated Corneal Incisions	Appl. No. 201280015199.4 Publ. No. CN103501686	3/22/2012		LENSAR, INC.	Pending
EPO	System and Method for Measuring and Correcting Astigmatism Using Laser Generated Corneal Incisions	Appl. No. 12764966.3 Publ. No. EP2688459	3/22/2012		LENSAR, INC.	Pending
PCT	System and Method for Measuring Tilt in the Crystalline Lens for Laser Phaco Fragmentation	Appl. No. PCT/US2012/030259 Publ. No. WO/2012/134986	3/23/2012		LENSAR, INC.	Completed
CN	System and Method for Measuring Tilt in the Crystalline Lens for Laser Phaco Fragmentation	Appl. No. 201280015211.1 Publ. No. CN103501720	3/23/2012		LENSAR, INC.	Pending

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
EPO	System and Method for Measuring Tilt in the Crystalline Lens for Laser Phaco Fragmentation	Appl. No. 12764431.8 Publ. No. EP2688504	3/23/2012		LENSAR, INC.	Pending
PCT	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. PCT/US2010/043255 Publ. No. WO/2011/011788	7/26/2010		LENSAR, INC.	Converted
AU	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 2010275380 Publ. No. AU2010275380	7/26/2010		LENSAR, INC.	Abandoned
CA	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 2769097 Publ. No. CA2769097	7/26/2010		LENSAR, INC.	Abandoned
CN	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 201080042503.5 Publ. No. 102639078A	7/26/2010		LENSAR, INC.	Pending
EPO	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 10803018.0 Patent No. EP2456385	7/26/2010	7/22/2015	LENSAR, INC.	Issued
GB	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. EP10803018.0 Patent No. EP2456385 National Validation of LR-9a EP	7/26/2010	7/22/2015	LENSAR, INC.	Issued
FR	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. EP10803018.0 Patent No. EP2456385 National Validation of LR-9a EP	7/26/2010	7/22/2015	LENSAR, INC.	Issued
DE	System and Method for Performing Ladar Assisted Procedures on the Lens of an Eye	Appl. No. 602010026112.3 Patent No. EP2456385 National Validation of LR-9a EP	7/26/2010	7/22/2015	LENSAR, INC.	Issued
JP	System and Method for Utilizing a Procedure of Executing a Ladar on the Eye Lentis	Appl. No. 2012521878 Publ. No. JP2013500086	7/26/2010		LENSAR, INC.	Abandoned

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
PCT	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. PCT/US2010/043117 Publ. No. WO/2011/011727	7/23/2010		LENSAR, INC.	Completed
AU	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. 2010275482 Publ. No. AU2010275482	7/23/2010		LENSAR, INC.	Abandoned
CA	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. CA2769090	7/23/2010		LENSAR, INC.	Abandoned
CN	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. 201080042744.X Publ. No. 102647954A	7/23/2010		LENSAR, INC.	Pending
EPO	System and Method for Providing Laser Shot Patterns to the Lens of an Eye	Appl. No. 10802983.6 Publ. No. EP2456384	7/23/2010		LENSAR, INC.	Pending
PCT	System and Method for Providing the Shaped Structural Weakening of the Human Lens with a Laser	PCT/US2007/001312 Publ. No. WO/2007/084602	1/18/2007		LENSAR, INC.	Completed
CN	System and Method for Providing the Shaped Structural Weakening of the Human Lens with a Laser	Appl. No. 201110314428.X Patent No. 201110314428.X	10/11/2011	6/4/2014	LENSAR, INC.	Issued
CN	System and Method for Providing the Shaped Structural Weakening of the Human Lens with a Laser	Appl. No. 201110314451.9 Patent No. 201110314451.9	10/11/2011	6/4/2014	LENSAR, INC.	Issued
PCT	System and Method of Scan Controlled Illumination of Structures Within an Eye	Appl. No. PCT/US2011/056279 Publ. No. WO/2012/051490	10/14/2011		LENSAR, INC.	Completed
CN	System and Method of Scan Controlled Illumination of Structures Within an Eye	Appl. No. 201180056915.9 Publ. No. CN103338692A	10/14/2011		LENSAR, INC.	Pending

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
EPO	System and Method of Scan Controlled Illumination of Structures Within an Eye	Appl. No. 11833457.2 Publ. No. EP2627240	10/14/2011		LENSAR, INC.	Pending
CN	Iris Registration Method and System	Appl. No. 201410425964.0 Publ. No. CN104573620	8/26/2014		LENSAR, INC.	Pending
EPO	Iris Registration Method and System	Appl. No. 14182248.6 Publ. No. EP2862548	8/26/2014		LENSAR, INC.	Pending
PCT	Iris Registration Method and System	Appl. No. PCT/US2015/042381	7/28/15		LENSAR, INC.	Pending
EPO	Second Pass Femtosecond Laser for Incomplete Laser Full or Partial Thickness Corneal Incisions	Appl. No. 14178969.3 Publ. No. EP 2837367	7/29/2014		LENSAR, INC.	Pending
CN	Second Pass Femtosecond Laser for Incomplete Laser Full or Partial Thickness Corneal Incisions	Appl. No. 201410366682.8 Publ. No. CN104337613	7/29/2014		LENSAR, INC.	Pending
US	Method and System for Measuring an Eye	Appl. No. 12509454 Publ. No. 20100042079	7/25/2009		LENSAR, INC.	Abandoned
US	System and method of illumination of structures within an eye	Appl. No. 15/013,360 Publ. No. 20160220113	2/2/2016		LENSAR, INC.	Pending
US	Laser Methods and Systems for Addressing Conditions of the Lens	Appl. No. 15/130,845 Publication No. US 2016-0302971	5/15/2016		LENSAR, INC.	Pending
PCT	Laser Methods and Systems for Addressing Conditions of the Lens	Appl. No. PCT/US16/027980	4/15/2016		LENSAR, INC.	Pending

Country	Title	Application/Patent Number	Filing Date	Issue Date	Recorded Owner	Status
US	Laser Methods and Systems for Addressing Conditions of the Lens and Inserting Intraocular Lenses	Prov. Appl. No. 62/393,560	9/12/2016		LENSAR, INC.	Pending
US	Patient Interface Device for Laser Methods and Systems	Prov. Appl. No. 62/319,728	4/7/2016		LENSAR, INC.	Pending
EPO	Patient Interface Device for Ophthalmic Laser Procedures	Appl. No. 14831847.0 Publ. No. EP 3027153	2/26/2016		LENSAR, INC.	Pending