

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5237231

<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>
MAUNA KEA TECHNOLOGIES	11/13/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	IPF FUND I SCA, SICAV-FIS
<b>Street Address:</b>	5, ALLEE SCHEFFER
<b>City:</b>	LUXEMBOURG
<b>State/Country:</b>	LUXEMBOURG
<b>Postal Code:</b>	L-2520
<b>PROPERTY NUMBERS Total: 5</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7447539
Patent Number:	7903848
Patent Number:	8081310
Patent Number:	8300326
Patent Number:	7869679
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(215)851-1420
<i>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.</i>	
<b>Phone:</b>	212-549-0288
<b>Email:</b>	phlipdocketing@reedsmith.com
<b>Correspondent Name:</b>	CONSTANTIN SOURIS, REED SMITH LLP
<b>Address Line 1:</b>	599 LEXINGTON AVENUE
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10022
<b>ATTORNEY DOCKET NUMBER:</b>	769261.00021
<b>NAME OF SUBMITTER:</b>	CONSTANTIN SOURIS
<b>SIGNATURE:</b>	/Constantin Souris/
<b>DATE SIGNED:</b>	11/14/2018
<b>Total Attachments: 10</b>	
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (“IP Security Agreement”), dated as of November 13, 2018, is made by and between **MAUNA KEA TECHNOLOGIES**, a société anonyme incorporated under the laws of the Republic of France under registration number 431 268 028 RCS Paris, having its registered office at 9, rue d’Enghien, 75010 Paris, France, as grantor, pledgor, assignor and debtor (together, with any successors and permitted assigns, the “Grantor”), in favor of and **IPF FUND I SCA, SICAV-FIS**, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the Subscription Agreement, in its capacity as bondholder representative, as pledgee, assignee and secured party (in such capacities and together with any successors in such capacities, the “Bondholder Representative”). Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to such terms in the Subscription Agreement (as defined herein) or the Terms and Conditions (as defined in the Subscription Agreement), as applicable and each as amended, amended and restated, supplemented or otherwise modified from time to time in accordance with the respective provisions therein.

WHEREAS, pursuant to (i) that certain Subscription Agreement, dated as of February 3, 2017 (as amended, amended and restated, supplemented or otherwise modified from time to time in accordance with the provisions thereof, the “First Subscription Agreement”), by and among: the Grantor; **MAUNA KEA TECHNOLOGIES, INC.**, a Delaware corporation, as Original Guarantor (the “Original Guarantor”); and **IPF FUND I SCA, SICAV-FIS**, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the First Subscription Agreement, as original subscriber of the Tranche A Bonds (the “Tranche A Original Subscriber” and together with its assignees and transferees in accordance with Clause 7 (Transfers by the Subscribers) of the First Subscription Agreement, the “Tranche A Subscriber”) and **IPF FUND I SCA, SICAV-FIS**, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the First Subscription Agreement, as original subscriber of the Tranche B Bonds and (ii) that certain Subscription Agreement, dated as of the date hereof (as amended, amended and restated, supplemented or otherwise modified from time to time in accordance with the

provisions thereof, the “Second Subscription Agreement”) (together with the First Subscription Agreement, individually and collectively, as the context requires, the “Subscription Agreement”), by and among: the Grantor; Original Guarantor; the Tranche A Original Subscriber; **IPF FUND I SCA, SICAV-FIS**, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the Second Subscription Agreement, as original subscriber of the Tranche C Bonds (the “Tranche C Original Subscriber” and together with its assignees and transferees in accordance with Clause 12 (Transfers by the Subscribers) of the Second Subscription Agreement, the “Tranche C Subscriber”) and **IPF FUND I SCA, SICAV-FIS**, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the Second Subscription Agreement, as original subscriber of the Tranche D Bonds (the “Tranche D Original Subscriber” (together with the Tranche A Original Subscriber and the Tranche C Original Subscriber, the “Original Subscribers”) and together with its assignees and transferees in accordance with Clause 12 (Transfers by the Subscribers) of the Second Subscription Agreement, the “Tranche D Subscriber”) (together with the Tranche C Subscriber, the “Second Subscription Agreement Subscribers”; the Second Subscription Agreement Subscribers together with the Tranche A Subscriber, individually and collectively, as the context requires, the “Subscribers”), the Subscribers have agreed to subscribe the bonds issued by the Grantor under the Subscription Agreement as described therein.

WHEREAS, the Subscribers have required, as a condition precedent to, among others, the Second Subscription Agreement Subscribers subscribing the bonds being issued under, and entering into, the Second Subscription Agreement, that the Grantor execute and deliver that certain first ranking French law pledge over Core Intellectual Property, dated as of the date hereof (the “Security Agreement”).

WHEREAS, the Subscribers have also required, as a condition precedent to, among others, the Second Subscription Agreement Subscribers subscribing the bonds being issued under, and entering into, the Second Subscription Agreement, that the Grantor execute and deliver this IP Security Agreement to the Bondholder Representative, for the ratable benefit of the Bondholder Representative and the Subscribers (collectively, the “Secured Parties”), to secure the payment and performance of all of the Secured Obligations.

WHEREAS, under the terms of the Security Agreement, the Grantor has granted to the Subscribers, a security interest in, among other property, certain intellectual property of the Grantor, and has agreed to execute and deliver this IP Security Agreement, for recording with national, federal and state government authorities, including, but not limited to, the United States Patent and Trademark Office and the United States Copyright Office.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor agrees with the Bondholder Representative as follows:

1. Grant of Security. The Grantor hereby pledges and grants to the Bondholder Representative, for the ratable benefit of the Secured Parties, a security interest in and to all of the right, title and interest of such Grantor in, to and under the following, to the extent constituting Core Intellectual Property (the "IP Collateral"):

(a) the patents and patent applications set forth in Schedule 1 hereto and all reissues, divisions, continuations, continuations-in-part, renewals, extensions and reexaminations thereof and amendments thereto (the "Patents");

(b) the trademark registrations and applications set forth in Schedule 2 hereto, together with the goodwill connected with the use thereof and symbolized thereby and all extensions and renewals thereof (the "Trademarks");

(c) the copyright registrations, applications and copyright registrations and applications exclusively licensed to the Grantor set forth in Schedule 3 hereto, and all extensions and renewals thereof (the "Copyrights");

(d) all rights of any kind whatsoever of such Grantor accruing under any of the foregoing provided by applicable law of any jurisdiction, by international treaties and conventions and otherwise throughout the world;

(e) any and all royalties, fees, income, payments and other proceeds now or hereafter due or payable with respect to any and all of the foregoing; and

(f) any and all claims and causes of action with respect to any of the foregoing, whether occurring before, on or after the date hereof, including all rights to and claims for damages, restitution and injunctive and other legal and equitable relief for past, present and future infringement, dilution, misappropriation, violation, misuse, breach or default, with the right but no obligation to sue for such legal and equitable relief and to collect, or otherwise recover, any such damages.

2. Recordation. The Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this IP Security Agreement upon request by the Bondholder Representative.

3. Finance Documents. This IP Security Agreement has been entered into pursuant to and in conjunction with the Security Agreement. The provisions of the Security Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of the Bondholder Representative with respect to the IP Collateral are as provided by the Subscription Agreement, the Security Agreement and related documents, and nothing in this IP Security Agreement shall be deemed to limit such rights and remedies.

4. Execution in Counterparts. This IP Security Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this IP

Security Agreement by facsimile or in electronic (i.e., “pdf” or “tif”) format shall be effective as delivery of a manually executed counterpart of this IP Security Agreement.

5. Successors and Assigns. This IP Security Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. Governing Law. This IP Security Agreement shall be governed by, and construed in accordance with, the laws of the United States and the State of New York.

7. Appointment of Bondholder Representative. Each of the Subscribers hereby irrevocably appoints IPF FUND I SCA, SICAV-FIS, a société en commandite par actions incorporated under the laws of the Grand Duchy of Luxembourg under registration number B180887, having its registered office at 5, allée Scheffer, L - 2520 Luxembourg, Grand Duchy of Luxembourg, represented by IPF Management S.A. (formerly known as IPF Management I S.à.r.l), a société anonyme incorporated under the laws of the Grand Duchy of Luxembourg under registration number B175933, having its registered office at 4, rue de la Grève, L-1643 Luxembourg, Grand Duchy of Luxembourg, itself represented by duly authorized signatories for the purpose of the Subscription Agreement, to act on its behalf as the Bondholder Representative under this Agreement and authorizes the Bondholder Representative to take such actions on its behalf and to exercise such powers as are delegated to the Bondholder Representative by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. In such capacity, the Bondholder Representative shall have the right (and for the avoidance of doubt, is hereby granted the right by the Subscribers) to possess any of the Collateral and to exercise all rights and remedies available under this Agreement, the Uniform Commercial Code and other applicable law. The provisions of this Section 7 are solely for the benefit of the Bondholder Representative and the Subscribers, and neither the Grantor nor any other Obligor shall have rights as a third-party beneficiary of any of such provisions.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Grantor has caused this Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

GRANTOR:

MAUNA KEA TECHNOLOGIES

By: 

Name: Robert Gershon

Title: 

Address for Notices:

9 rue d'Enghien  
75010 Paris, France

Signature Page to IP Security Agreement

**PATENT**  
**REEL: 047500 FRAME: 0191**

**BONDHOLDER REPRESENTATIVE:**

**IPF FUND I SCA, SICAV-FIS,**  
represented by IPF Management S.A.

By: E. Guillet

By: Claire Lorenzi

Name: Edmond Guillet

Name: Claire Lorenzi

Title: Managing Director

Title: Chief Financial Officer

Address: 4, rue de la Grève

Address: 4, rue de la Grève

L-1643 Luxembourg

L-1643 Luxembourg



ACKNOWLEDGED AND AGREED (solely for purposes of Section 7):

IPF FUND I SCA, SICAV-FIS, as Tranche A Subscriber  
represented by IPF Management S.A.

By: E. Guillet By: C. Lorenzi  
Name: Edmond Guillet Name: Claire Lorenzi  
Title: Managing Director Title: Chief Financial Officer  
Address: 4, rue de la Grève Address: 4, rue de la Grève  
L-1643 Luxembourg L-1643 Luxembourg

IPF FUND I SCA, SICAV-FIS, as Tranche C Subscriber  
represented by IPF Management S.A.

By: E. Guillet By: C. Lorenzi  
Name: Edmond Guillet Name: Claire Lorenzi  
Title: Managing Director Title: Chief Financial Officer  
Address: 4, rue de la Grève Address: 4, rue de la Grève  
L-1643 Luxembourg L-1643 Luxembourg

IPF FUND I SCA, SICAV-FIS, as Tranche D Subscriber  
represented by IPF Management S.A.

By: E. Guillet By: C. Lorenzi  
Name: Edmond Guillet Name: Claire Lorenzi  
Title: Managing Director Title: Chief Financial Officer  
Address: 4, rue de la Grève Address: 4, rue de la Grève  
L-1643 Luxembourg L-1643 Luxembourg

## SCHEDULE 1

### LIST OF PATENTS AND PATENT APPLICATIONS

#### Issued Patents

<u>Grantor</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>First Named Inventor</u>	<u>Title</u>
MAUNA KEA TECHNOLOGIES	7,447,539	July 11, 2003	Genet; Magalie (Guyancourt, FR)	Method and equipment for fiber optic high-resolution, in particular confocal, fluorescence imaging
MAUNA KEA TECHNOLOGIES	7,903,848	July 11, 2003	Perchant; Aymeric (Paris, FR)	Method for processing an image acquired through a guide consisting of a plurality of optical fibers
MAUNA KEA TECHNOLOGIES	8,081,310	June 9, 2005	Viellerobe; Bertrand (Nogent sur Marne, FR)	Multimarking fibre-type fluorescence microscopic imaging method and system
MAUNA KEA TECHNOLOGIES	8,300,326	April 27, 2007	Genet; Magalie (Guyancourt, FR)	Miniaturized optical head with high spatial resolution and high sensitivity, especially for fibred confocal fluorescence imaging
MAUNA KEA TECHNOLOGIES	7,869,679	October 10, 2008	Viellerobe; Bertrand (Nogent sur Marne, FR)	Modular imaging system, modules for this system and method implemented using this system

#### Pending Patent Applications

None.

#### Patent Licenses

None.

## **SCHEDULE 2**

### **LIST OF TRADE NAMES, TRADEMARKS, SERVICES MARKS, INTERNET DOMAIN NAMES, TRADEMARK AND SERVICE MARK REGISTRATIONS AND APPLICATIONS FOR TRADEMARK AND SERVICE MARK REGISTRATIONS**

#### **Registered Trademarks**

None.

#### **Pending Trademark Applications**

None.

#### **Registered Trademarks Licenses**

None.

#### **Internet Domain Names**

None.

**SCHEDULE 3**

**LIST OF COPYRIGHTS, COPYRIGHT REGISTRATIONS AND APPLICATIONS FOR COPYRIGHT REGISTRATIONS**

**Copyrights** (Registered Copyrights & Copyrights Pending Registration Applications)

None.

**Copyright Licenses**

None.