

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM802394

<b>SUBMISSION TYPE:</b>	RESUBMISSION
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST
<b>RESUBMIT DOCUMENT ID:</b>	900759632

## CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Lucid Diagnostics Inc.		03/21/2023	Corporation: DELAWARE
Luciddx Labs Inc.		03/21/2023	Corporation: DELAWARE
Capnostics, LLC		03/21/2023	Limited Liability Company: PENNSYLVANIA

## RECEIVING PARTY DATA

<b>Name:</b>	Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B
<b>Street Address:</b>	222 Broadway, 19th Floor
<b>Internal Address:</b>	c/o Ayrton Capital LLC
<b>City:</b>	New York
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10038
<b>Entity Type:</b>	Corporation: DELAWARE

## PROPERTY NUMBERS Total: 11

Property Type	Number	Word Mark
<b>Serial Number:</b>	90298693	CHECK YOUR FOOD TUBE
<b>Serial Number:</b>	90298698	CHECK YOUR FOOD TUBE
<b>Serial Number:</b>	97070313	
<b>Serial Number:</b>	97065744	LUCID DIAGNOSTICS
<b>Serial Number:</b>	97065738	LD
<b>Serial Number:</b>	97065735	LD LUCID DIAGNOSTICS
<b>Registration Number:</b>	6180917	ESOGUARD
<b>Serial Number:</b>	88361927	ESOSCREEN
<b>Registration Number:</b>	5909679	ESOCHECK
<b>Serial Number:</b>	88489566	COLLECT+PROTECT
<b>Registration Number:</b>	6283929	COLLECT+PROTECT

## CORRESPONDENCE DATA

Fax Number:

*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:** 12128087800  
**Email:** Trademarks@kelleydrye.com  
**Correspondent Name:** Kelley Drye & Warren LLP  
**Address Line 1:** 3 WTC, 175 Greenwich Street  
**Address Line 4:** New York, NEW YORK 10007

**NAME OF SUBMITTER:** Lauren Kouser

**SIGNATURE:** /laurenkouser/

**DATE SIGNED:** 04/12/2023

**Total Attachments: 24**

source=Lucid - IP Security Agreement (Fully Executed)#page1.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page2.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page3.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page4.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page5.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page6.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page7.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page8.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page9.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page10.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page11.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page12.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page13.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page14.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page15.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page16.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page17.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page18.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page19.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page20.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page21.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page22.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page23.tif  
source=Lucid - IP Security Agreement (Fully Executed)#page24.tif

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, modified, supplemented, renewed, restated or replaced from time to time, this “**IP Security Agreement**”), dated March 21, 2023, is made by the Persons listed on the signature pages hereof (collectively, the “**Grantors**”) in favor of Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B, in its capacity as collateral agent (the “**Collateral Agent**”) for the Noteholders. All capitalized terms not otherwise defined herein shall have the meanings respectively ascribed thereto in the Security Agreement (as defined below).

WHEREAS, Lucid Diagnostics Inc., a Delaware corporation with offices located at 360 Madison Avenue, 25th Floor, New York, NY 10017 (the “**Company**”), and each party listed as a “Buyer” therein (collectively, the “Buyers”) are parties to that certain Securities Purchase Agreement, dated as of March 13, 2023 (as amended, modified, supplemented, extended, renewed, restated or replaced from time to time, the “**Securities Purchase Agreement**”) pursuant to which the Company shall be required to sell, and the “Buyers” specified therein shall purchase or have the right to purchase, the “Notes” (as defined therein) issued pursuant thereto (as such notes may be amended, modified, supplemented, renewed, restated or replaced from time to time in accordance with the terms thereof, collectively, the “**Notes**”);

WHEREAS, it is a condition precedent to the purchase of the Notes under the Securities Purchase Agreement that each Grantor has executed and delivered that certain Security and Pledge Agreement, dated March 21, 2023, made by the Grantors to the Collateral Agent (as amended, modified, supplemented, renewed, restated or replaced from time to time, the “**Security Agreement**”); and

WHEREAS, under the terms of the Security Agreement, the Grantors have granted to the Collateral Agent, for the ratable benefit of the Collateral Agent and the Noteholders, a Lien on and security interest in, among other property, certain intellectual property of the Grantors, and have agreed as a condition thereof to execute this IP Security Agreement for recording with the U.S. Patent and Trademark Office, the United States Copyright Office and other governmental authorities.

WHEREAS, the Grantors have determined that the execution, delivery and performance of this IP Security Agreement directly benefits, and is in the best interest of, the Grantors.

NOW, THEREFORE, in consideration of the premises and the agreements herein and in order to induce the Buyers to perform under the Securities Purchase Agreement, each Grantor agrees with the Collateral Agent, for the ratable benefit of the Collateral Agent and the Noteholders, as follows

SECTION 1. Grant of Security. As collateral security for the due and punctual payment and performance in full of the Obligations, as and when due, each Grantor hereby pledges and assigns to the Collateral Agent, its successors and permitted assigns, and hereby grants to the Collateral Agent, its successors and permitted assigns, for the ratable benefit of the Collateral Agent and the Noteholders, a continuing Lien on and security interest in, all of such Grantor’s right, title and interest in, to and under the following (the “**Collateral**”):

(i) the Patents and Patent applications set forth in Schedule A hereto;

(ii) the Trademark and service mark registrations and applications set forth in Schedule B hereto (provided that no security interest shall be granted in United States intent-to-use trademark applications to the extent that, and solely during the period in which, the grant of a security interest therein would impair the validity or enforceability of such intent-to-use trademark applications under applicable federal law), together with the goodwill symbolized thereby;

(iii) all Copyrights, whether registered or unregistered, now owned or hereafter acquired by such Grantor, including, without limitation, the copyright registrations and applications and exclusive copyright licenses set forth in Schedule C hereto;

(iv) all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the foregoing, all rights in the foregoing provided by international treaties or conventions, all rights corresponding thereto throughout the world and all other rights of any kind whatsoever of such Grantor accruing thereunder or pertaining thereto;

(v) any and all claims for damages and injunctive relief for past, present and future infringement, dilution, misappropriation, violation, misuse or breach with respect to any of the foregoing, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and

(vi) any and all Proceeds, including without limitation Cash and Noncash Proceeds of, collateral for, income, royalties and other payments now or hereafter due and payable with respect to, and Supporting Obligations relating to, any and all of the collateral of or arising from any of the foregoing.

Notwithstanding anything herein to the contrary, the term “**Collateral**” shall not include any Excluded Collateral.

SECTION 2. Security for Obligations. The grant of a Lien on and security interest in, the Collateral by each Grantor under this IP Security Agreement constitutes continuing collateral security for the payment and performance of all Obligations of such Grantor now or hereafter existing under or in respect of the Notes and the Transaction Documents, whether direct or indirect, absolute or contingent, and whether for principal, reimbursement obligations, interest, premiums, penalties, fees, indemnifications, contract causes of action, costs, expenses or otherwise.

SECTION 3. Recordation. Each Grantor authorizes and requests that the Register of Copyrights, the Commissioner for Patents and the Commissioner for Trademarks and any other applicable government officer record this IP Security Agreement.

SECTION 4. Execution in Counterparts. This IP Security Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original, but all of which taken together constitute one and the same Agreement.

SECTION 5. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the Lien and security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein.

SECTION 6. Governing Law; Jurisdiction; Jury Trial.

(i) All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of New York, without giving effect to any provision or rule of law (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdiction other than the State of New York.

(ii) Each Grantor hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or under any of the other Transaction Documents or with any transaction contemplated hereby or thereby, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim, defense or objection that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under Section 9(f) of the Securities Purchase Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Collateral Agent or the Noteholders from bringing suit or taking other legal action against any Grantor in any other jurisdiction to collect on a Grantor's obligations or to enforce a judgment or other court ruling in favor of the Collateral Agent or a Noteholder.

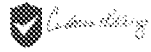
(iii) WAIVER OF JURY TRIAL, ETC. EACH PARTY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR UNDER ANY OTHER TRANSACTION DOCUMENT OR IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT, ANY OTHER TRANSACTION DOCUMENT OR ANY TRANSACTION CONTEMPLATED HEREBY OR THEREBY.

(iv) Each Party irrevocably and unconditionally waives any right it may have to claim or recover in any legal action, suit or proceeding referred to in this Section any special, exemplary, indirect, incidental, punitive or consequential damages.

[The remainder of the page is intentionally left blank]

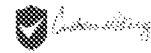
IN WITNESS WHEREOF, each Grantor has caused this Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

LUCID DIAGNOSTICS INC.

Disqualified by Lishan Aklog  
 | I declare the document  
is executed by me or on my behalf  
on the date and at the place indicated

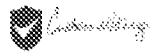
By \_\_\_\_\_  
Name: Lishan Aklog, M.D.  
Title: Chairman and Chief Executive  
Officer

LUCIDDX LABS INC.

Disqualified by Lishan Aklog  
 | I declare the document  
is executed by me or on my behalf  
on the date and at the place indicated

By \_\_\_\_\_  
Name: Lishan Aklog, M.D.  
Title: Executive Chairman

CAPNOSTICS, LLC

Disqualified by Lishan Aklog  
 | I declare the document  
is executed by me or on my behalf  
on the date and at the place indicated

By \_\_\_\_\_  
Name: Lishan Aklog, M.D.  
Title: Executive Chairman

Address for Notices:

360 Madison Avenue, 25th Floor  
New York, NY 10017

**Schedule A**

**Patents**

See Exhibit-1 attached.

**Schedule B**

**Trademarks**

See Exhibit-1 attached.



**Schedule C**

**Copyrights**

None.

**EXHIBIT 1**

**Trademarks**

Grantor <sup>1</sup>	Trademark	Country	Application No.	Registration No.	Filing Date	Registration Date	Licensors
Lucid Diagnostics Inc.	ESOCHECK DX	CA	1947671	Pending	10/6/2022	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK CCD	CA	1947670	Pending	10/6/2022	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK CCD	UK	UK0003391816	UK0003391816	4/12/2019	6/28/2019	PAVmed Inc.
Lucid Diagnostics Inc.	LUCID DIAGNOSTICS	US	97/065,744	Pending	10/8/2021	Pending	N/A
Lucid Diagnostics Inc.	LUCID DIAGNOSTICS	AU	2260858	2260858	4/4/2022	8/15/2023	N/A
Lucid Diagnostics Inc.	LUCID DIAGNOSTICS	JP	2022-38601	Pending	4/4/2022	Pending	N/A
Lucid Diagnostics Inc.	LUCID DIAGNOSTICS	UK	UK0003773813	Opposed	4/4/2022	Pending	N/A
Lucid Diagnostics Inc.	LD (stylized)	US	97/065,738	Pending	10/8/2021	Pending	N/A
Lucid Diagnostics Inc.	LD (stylized)	AU	2260828	2260828	4/4/2022	8/8/2022	N/A
Lucid Diagnostics Inc.	LD (stylized)	CA	2176911	Pending	4/1/2022	Pending	N/A
Lucid Diagnostics Inc.	LD (stylized)	EU	18681511	18681511	4/4/2022	8/20/2022	N/A
Lucid Diagnostics Inc.	LD (stylized)	JP	2022-38602	Pending	4/4/2022	Pending	N/A
Lucid Diagnostics Inc.	LD (stylized)	UK	UK0003773809	UK0003773809	4/4/2022	6/24/2022	N/A

<sup>1</sup> Note the Grantor referenced in this table is either the trademark owner or licensee of the trademarks listed herein pursuant to License Agreement, dated as of May 20, 2019, by and between PAVmed Inc. and Lucid Diagnostics Inc., and Management Services Agreement, dated as of May 12, 2018, by and between PAVmed Inc. and Lucid Diagnostics Inc., as amended.

Grantor <sup>1</sup>	Trademark	Country	Application No.	Registration No.	Filing Date	Registration Date	Licensors
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	US	97/065,735	Pending	10/8/2021	Pending	N/A
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	AU	2260837	2260837	4/4/2022	8/15/2022	N/A
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	CA	2176912	Pending	4/1/2022	Pending	N/A
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	EU	18681510	18681510	4/4/2022	8/22/2022	N/A
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	JP	2022-38603	Pending	4/4/2022	Pending	N/A
Lucid Diagnostics Inc.	LD LUCID DIAGNOSTICS (stylized)	UK	UK0003773805	UK0003773805	4/4/2022	6/24/2022	N/A
Lucid Diagnostics Inc.	ESOGUARD	US	58/347,269	6180917	3/19/2019	10/20/2020	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	AU	2005586	2005586	4/26/2019	10/28/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	CA	1959088	Pending	10/6/2022	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	EU	18055629	18055629	4/24/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	UK	UK00918055629	UK00918055629	4/24/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	JP	2019-61214	6220664	4/25/2019	1/29/2020	PAVmed Inc.
Lucid Diagnostics Inc.	ESOGUARD	UK	UK0003394519	UK0003394519	4/25/2019	7/19/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	US	88/361,927	Pending	3/28/2019	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	AU	2005585	2005585	4/26/2019	11/5/2019	PAVmed Inc.

Grantor <sup>1</sup>	Trademark	Country	Application No.	Registration No.	Filing Date	Registration Date	Licensors
Lucid Diagnostics Inc.	ESOSCREEN	CA	1959087	Pending	4/24/2019	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	EU	18055630	18055630	4/24/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	UK	UK00918055630	UK00918055630	4/24/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	JP	2019-61211	6220663	4/25/2019	1/29/2020	PAVmed Inc.
Lucid Diagnostics Inc.	ESOSCREEN	UK	UK0003394523	UK0003394523	4/24/2019	7/19/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	US	88/090,111	5,909,679	8/23/2018	11/12/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	AU	1998006	1998006	3/22/2019	12/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	CA	1952836	Pending	3/21/2019	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	EU	18051805	18051805	4/12/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	UK	UK00918051805	UK00918051805	4/12/2019	8/30/2019	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	JP	2019-41505	6221462	3/22/2019	1/29/2020	PAVmed Inc.
Lucid Diagnostics Inc.	ESOCHECK	UK	UK0003391819	UK0003391819	4/12/2019	6/28/2019	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	AU	2059720	2059720	12/25/2019	8/3/2020	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	CA	2003199	Pending	12/24/2019	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	EU	18171542	18171542	12/27/2019	2/3/2021	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	JP	2019-166751	6292658	12/25/2019	9/15/2020	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	US	88/489,566	Pending	6/26/2019	Pending	PAVmed Inc.
Lucid Diagnostics Inc.	COLLECT+PROTECT	US	88/489,564	6,283,929	6/26/2019	3/2/2021	PAVmed Inc.

Grantor <sup>1</sup>	Trademark	Country	Application No.	Registration No.	Filing Date	Registration Date	Licensors
Lucid Diagnostics Inc.	COLLECT+PROTECT	UK	UK00003454281	UK00003454281	12/27/2019	3/20/2020	PAV med Inc.
Lucid Diagnostics Inc.	CHECK YOUR FOOD TUBE	US	90/298,693	Pending	1/14/2020	Pending	PAV med Inc.
Lucid Diagnostics Inc.	CHECK YOUR FOOD TUBE	US	90/298,698	Pending	1/14/2020	Pending	PAV med Inc.
Lucid Diagnostics Inc.	CHECK YOUR FOOD TUBE	Canada	2100239	Pending	4/15/2021	Pending	PAV med Inc.
Lucid Diagnostics Inc.	CHECK YOUR FOOD TUBE	UK	3627944	UK00003627944	4/16/2021	8/27/2021	PAV med Inc.
Lucid Diagnostics Inc.	CHECK YOUR FOOD TUBE	AU	2171621	2171621	4/16/2021	4/16/2021	PAV med Inc.
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	US	97/070,313	Pending	10/12/2021	Pending	N/A
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	AU	2259528	2259528	3/30/2022	7/4/2022	N/A
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	CA	2175722	Pending	3/29/2022	Pending	N/A
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	EU	18679426	18679426	3/30/2022	9/16/2022	N/A
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	JP	2022-36126	Pending	3/29/2022	Pending	N/A
Lucid Diagnostics Inc.	FOODTUBE MASCOT (stylized)	UK	UK00003771988	UK00003771988	3/30/2022	6/24/2022	N/A

## Patents

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	A catheter device system and method of use	2020/277304	5/15/2020	Pending	Pending	AU	PAVmed Inc.	AKLOG, Lishan et al.
Lucid Diagnostics Inc.	Methods and compositions for detecting gastrointestinal and other cancers	2012/272697	6/7/2012	4/21/2016	Issued	AU	Case Western Reserve University	Markowitz; Sanford D. et al.
Lucid Diagnostics Inc.	Methods and compositions for detecting esophageal neoplasias and/or metaplasias in the esophagus	2015/374019	12/30/2015	6/23/2022	Issued	AU	Case Western Reserve University	Markowitz; Sanford D. et al.
Lucid Diagnostics Inc.	Methods and compositions for detecting esophageal neoplasias and/or metaplasias in the esophagus	2017/292668	7/5/2017	Pending	Pending	AU	Case Western Reserve University	Markowitz; Sanford D. et al.
Lucid Diagnostics Inc.	Compositions and methods for preserving DNA methylation	2020/283954	5/28/2020	Pending	Pending	AU	Case Western Reserve University	Markowitz; Sanford D. et al.

<sup>2</sup> Note the Grantor referenced in this table is the licensee of the patents listed herein pursuant to the (i) License Agreement, dated as of May 20, 2019, by and between PAVmed Inc. and Lucid Diagnostics Inc., and Management Services Agreement, dated as of May 12, 2018, by and between PAVmed Inc. and Lucid Diagnostics Inc., as amended, and (ii) Amended and Restated License Agreement, dated as of August 23, 2021, by and between Case Western Reserve University and Lucid Diagnostics Inc.

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Device for collecting a biological sample	2014/361829	12/12/2014	11/07/2019	Issued	AU	Case Western Reserve University	Markowitz; Sanford D. et al.
Lucid Diagnostics Inc.	Device for collecting a biological sample	2019/253820	10/22/2019	9/10/2020	Issued	AU	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods and compositions for detecting esophageal neoplasias and/or metaplasias in the esophagus	2018/261544	5/03/2018	Pending	Pending	AU	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological sampling device	2021/280278	11/3/2022	Pending	Pending	AU	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods and compositions for detecting esophageal neoplasias and/or metaplasias in the esophagus	2022/201153	12/30/2015	Pending	Pending	AU	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	BE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Systems And Methods For Percutaneous Division Of Fibrous Structures	2,969,579	12/3/2015	Pending	Pending	CA	PAVmed Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	A Catheter Device System And Method Of Use	3140789	5/15/2020	Pending	Pending	CA	PAVmed Inc.	Lishan Aklog et al.

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensor	Inventors
Lucid Diagnostics Inc.	Systems And Methods For Cell Collection And Protection Of Harvested Cells	Pending	Pending	Pending	Pending	CA	PAVmed Inc. Veris Health Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Methods and compositions for detecting colon cancers	2,535,910	10/16/2004	4/26/2016	Issued	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods and compositions for detecting gastrointestinal and other cancers	2,840,324	6/22/2012	4/13/2021	Issued	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods and compositions for detecting esophageal neoplasias and/or metaplasias in the esophagus	2,972,782	12/30/2015	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	3,029,866	7/5/2017	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Compositions And Methods For Preserving DNA Methylation	3,142,023	5/28/2020	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	3147619	2/3/2022	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al



Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	2933550	12/12/2014	4/26/2022	Issued	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	3062305	5/3/2018	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological Sampling Device	3177946	11/4/2022	Pending	Pending	CA	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	CH	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device for collecting a biological sample	3079598	12/12/2014	3/16/2022	Issued	CH	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	201780054668.6	7/5/2017	Pending	Pending	CN	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Catheter Device System And Method Of Use	202080036758.40	5/15/2020	Pending	Pending	CN	PAVmed Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Systems And Methods For Cell Collection And Protection Of Harvested Cells	Pending	Pending	Pending	Pending	CN	PAVmed Inc. Veris Health Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Compositions and methods for preserving DNA methylation	202080054351.4	5/28/2020	Pending	Pending	CN	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensor	Inventors
Lucid Diagnostics Inc.	Device for collecting a biological sample	201880036871.5	12/3/2019	Pending	Pending	CN	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	602012067440.7	6/22/2012	1/22/2020	Issued	DE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods and compositions for detecting colon cancers	602004051126.9	8/16/2004	4/19/2017	Issued	DE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device for collecting a biological sample	60 2014 082 886.8	12/12/2014	03/16/2022	Issued	DE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Catheter Device System And Method Of Use	20810701.1	5/15/2020	Pending	Pending	EP	PAVmed Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Systems And Methods For Cell Collection And Protection Of Harvested Cells	21766781.5	12/20/2000	Pending	Pending	EP	PAVmed Inc. Veris Health Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Methods and compositions for detecting colon cancers	1660683	8/16/2004	4/19/2017	Issued	EP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	Jun 22, 2012	1/22/2020	Issued	EP	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	15876289.8	12/30/2015	Pending	Pending	EP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	17824802.7	7/5/2017	Pending	Pending	EP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Compositions and methods for preserving DNA methylation	20814329.7	5/28/2020	Pending	Pending	EP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	19208108.1	11/5/2019	Pending	Pending	EP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device for Biological Cell Collection and Method of Use	20940693	11/21/2022	Pending	Pending	EP	Case Western Reserve University	Amitabh Chak et al
Lucid Diagnostics Inc.	Device for Biological Cell Collection and Method of Use	21734601.4	11/4/2022	Pending	Pending	EP	Case Western Reserve University	Sanford Markowitz et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	5/22/2012	1/22/2020	Issued	ES	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	1660683	8/16/2004	4/19/2017	Issued	FR	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	FR	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	1660683	8/16/2004	4/19/2017	Issued	GB	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	GB	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	3079598	12/12/2014	03/16/2022	Issued	GB	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	IE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	3079598	12/12/2014	03/16/2022	Issued	IE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Biological Cell Collection And Method Of Use	202034033833	8/7/2020	Pending	Pending	IN	Case Western Reserve University	Amitabh Chak et al.
Lucid Diagnostics Inc.	Catheter Device System And Method Of Use	2021-568557	5/15/2020	Pending	Pending	JP	PAVmed Inc.	Lishan Aklog et al.

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Compositions And Methods For Preserving DNA Methylation	2021-570367	5/28/2020	Pending	Pending	JP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Apparatus For Collecting Biological Samples	2019-560210	11/1/2019	Pending	Pending	JP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device for Biological Cell Collection and Method of Use	2022-577626	12/15/2022	Pending	Pending	JP	Case Western Reserve University	Amitabh Chak, et al.
Lucid Diagnostics Inc.	Biological Sampling Device	2022-573288	11/25/2022	Pending	Pending	JP	Case Western Reserve University	Sanford Markowitz, et al.
Lucid Diagnostics Inc.	Method And Composition For Detecting Esophageal Neoplasm And/Or Metaplasia In The Esophagus	2019-500232	7/5/2017	Pending	Pending	JP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Method And Composition For Detecting Esophageal Neoplasm And/Or Metaplasia In The Esophagus	2022-92841	7/5/2017	Pending	Pending	JP	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	2724154	6/22/2012	1/22/2020	Issued	NL	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	3079598	12/12/2014	03/16/2022	Issued	NL	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	PCT/US2012/0438 34	6/22/2012	Pending	Pending	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	PCT/US2020/0331 83	5/15/2020	Pending	Nationalized	PCT	PAVmed Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Catheter Status Indicator And Methods Of Use	PCT/US2022/0741 48	7/26/2022	Pending	Pending	PCT	PAVmed Inc.	Boutillette Michael et al.
Lucid Diagnostics Inc.	Systems And Methods For Cell Collection And Protection Of Harvested Cells	PCT/US23/46314	8/17/2020	Pending	Nationalized	PCT	PAVmed Inc. Veris Health Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	PCT/US2004/0264 78	8/16/2004	Pending	Nationalized	PCT	Case Western Reserve University	Markowitz; Sanford D.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	PCT/US2015/0681 31	12/30/2015	Pending	Nationalized	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or	PCT/US2017/0407 08	7/5/2017	Pending	Nationalized	PCT	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Metaplasias In The Esophagus							
Lucid Diagnostics Inc.	Compositions And Methods For Preserving DNA Methylation	PCT/US2020/034830	5/28/2020	Pending	Nationalized	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Biological Cell Collection And Method Of Use	PCT/US2020/037883	6/16/2020	Pending	Nationalized	PCT	Case Western Reserve University	Amitabh Chak et al
Lucid Diagnostics Inc.	Biological Sampling Device And Method Of Use	PCT/US21/34280	5/26/2021	Pending	Nationalized	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological Sampling Method	PCT/US22/35806	6/30/2022	Pending	Pending	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological Sampling Method	PCT/US22/35830	6/30/2022	Pending	Pending	PCT	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	12802150.8	6/22/2012	1/22/2020	Issued	SE	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Catheter Device System And Method Of Use	16/875,377	5/15/2020	Pending	Pending	US	PAVmed Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Systems And Methods For Cell Collection And Protection Of Harvested Cells	17/404,746	Pending	Pending	Pending	US	PAVmed Inc. Veris Health Inc.	Lishan Aklog et al.
Lucid Diagnostics Inc.	Device for Collecting a Biological Sample	63/342,209	5/16/2022	Pending	Pending	US	PAVmed, Inc.	Lishan Aklog, et al.

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Device for Collecting a Biological Sample	29/865,862	5/28/2020	Pending	Pending	US	N/A.	Richard Yazbeck, et al.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	7485420	8/16/2004	2/3/2009	Issued	US	Howard Hughes Medical Institute & CWRU	Markowitz; Sanford D.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	8481707	6/27/2008	7/9/2013	Issued	US	National Institutes of Health & CWRU	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	8221977	5/11/2011	7/17/12	Issued	US	Howard Hughes Medical Institute & CWRU	Markowitz; Sanford D.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	8415100	6/23/2011	4/9/2013	Issued	US	National Institutes of Health & CWRU	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Colon Cancers	9580754	11/6/2012	2/28/2017	Issued	US	National Institutes of Health & CWRU	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	10,400,286	1/23/2017	8/14/2019	Issued	US	N/A	Markowitz; Sanford D.
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	10450615	4/18/2019	10/2/2019	Issued	US	Case Western Reserve University	Markowitz; Sanford D. et al



Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Gastrointestinal And Other Cancers	11136629	9/9/2019	10/5/2021	Issued	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	15/540,956	Jun 29, 2017	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	16/315,405	1/4/2019	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Methods And Compositions For Detecting Esophageal Neoplasias And/Or Metaplasias In The Esophagus	17/590,986	2/2/2022	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	15/103,638	6/10/2016	5/26/2020	Issued	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	16/405634	5/7/2019	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	17/643,299	12/8/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al

Grantor <sup>2</sup>	Title	Patent Number	Filing Date	Issue Date	Status	Country	Licensors	Inventors
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	17/643,320	12/8/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	17/643,329	12/8/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	17/643,335	12/8/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	17/643,341	12/8/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Collecting A Biological Sample	16/610,115	6/30/2022	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Device For Biological Cell Collection And Method Of Use	16/902,579	6/16/2020	Pending	Pending	US	Case Western Reserve University	Amitabh Chak et al
Lucid Diagnostics Inc.	Biological Sampling Device And Method Of Use	17/331,375	5/26/2021	Pending	Pending	US	N/A	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological Sampling Device And Method Of Use	17/855,515	6/30/2022	Pending	Pending	US	N/A	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Biological Sampling Device And Method Of Use	17/855,530	6/30/2022	Pending	Pending	US	N/A	Markowitz; Sanford D. et al
Lucid Diagnostics Inc.	Compositions And Methods For Preserving Dna Methylation	17/613,825	11/23/2021	Pending	Pending	US	Case Western Reserve University	Markowitz; Sanford D. et al