### TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

ETAS ID: TM504549

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

### **CONVEYING PARTY DATA**

Name	Formerly	Execution Date	Entity Type
PAVmed Inc.		12/27/2018	Corporation: DELAWARE
Lucid Diagnostics Inc.		12/27/2018	Corporation: DELAWARE

### **RECEIVING PARTY DATA**

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

### **PROPERTY NUMBERS Total: 2**

Property Type	Number	Word Mark
Serial Number:	88090111	ESOCHECK
Serial Number:	88090114	ESOCHEK

### **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.

Email: njpatentgroup@kelleydrye.com Kelley Drye & Warren LLP **Correspondent Name:** 

Address Line 1: One Jefferson Road

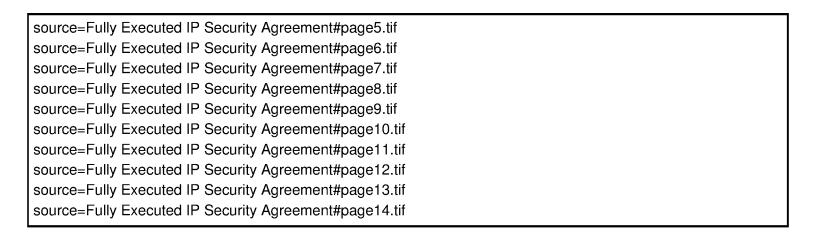
Address Line 4: Parsippany, NEW JERSEY 07054

NAME OF SUBMITTER:	Michael J. Zinna
SIGNATURE:	/Michael J. Zinna/
DATE SIGNED:	01/04/2019

**Total Attachments: 14** 

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### 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 December 27, 2018, 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, PAVmed Inc., a Delaware corporation with offices located at One Grand Central Place, Suite 4600, New York, NY 10165 (the "Company"), and each party listed as a "Buyer" therein (collectively, the "Buyers") are parties to that certain Securities Purchase Agreement, dated December 27, 2018, pursuant to which the Company shall be required to sell, and the Buyers 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 December 27, 2018, 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 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 benefit of the Noteholders, as follows

SECTION 1. <u>Grant of Security</u>. Each Grantor hereby grants to the Collateral Agent for the ratable benefit of the Collateral Agent and the Noteholders a security interest in all of such Grantor's right, title and interest in and to the following (the "**Collateral**"):

(i) the Patents and Patent applications set forth in <u>Schedule A</u> 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 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.
- SECTION 2. <u>Security for Obligations</u>. The grant of a security interest in, the Collateral by each Grantor under this IP Security Agreement secures the payment 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. <u>Recordation</u>. 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. <u>Execution in Counterparts</u>. This IP Security Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.
- SECTION 5. <u>Grants, Rights and Remedies</u>. 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 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 choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York.
- (ii) Each Party 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) <u>WAIVER OF JURY TRIAL</u>, <u>ETC</u>. 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.

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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.

PAVMED INC.

Name: Lishan Aklog

Title: Chief Executive Officer

LUCID DJAGNOSTICS, INC.

Ву

Name: Lishan Aklog Title: Executive Chairman

Address for Notices:

One Grand Central Place

**Suite 4600** 

New York, New York 10165

[Signature Page to Intellectual Property Security Agreement]

## Schedule A

### <u>Patents</u>

PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	Grantor
Port IO	Port IO	Port IO	Port IO	Port IO	PAVmed Code
010104/CA	010103/AU	010102/PCT	010101/US	010100/PRO	Matter#
Canada	Australia	PCT	US	US	Country
Intraosseous Infusion Ports	Intraosseous Infusion Ports	Long-Term Intraosseous Infusion Ports	Intraosseous Infusion Ports	Long-Term Intraosseous Infusion Ports	Title
2967759 11/13/2015	2015346130 11/13/2015	PCT/US15/060669 11/13/2015 5/19/2016	14/940,889 11/13/2015	62/079,266 11/13/2014	Application No. Publica Application No. Date Publica
		WO 2016/077748 5/19/2016	2016- 0136410 A1 5/19/2016		Publication No. Publication
					Patent No. Issue Date
Pending	Pending	Nationalized	Pending	Expired	Status

PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.				
NextCath	NextCath	NextCath	NextCath	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.
				Port IO	Port IO	Port IO	Port IO
010203/US	010202/PCT	010201/US	010200/PRO	010108/US/DIV	010107/JP	010106/EP	010105/CN
US	PCT	US	SO	US	Japan	Europe	China
Self-Anchoring Catheters and Methods of Use	Intraosseous Infusion Ports	Intraosseous Infusion Ports	Intraosseous Infusion Ports	Intraosseous Infusion Ports			
TBD	PCT/US15/063221WO 12/1/2015 2010 6/9/	14/956,141 12/1/2015	62/085,838 12/1/2014	15/964,292 4/27/2018	2017-544850 11/13/2015	15859903.5 11/13/2015	201580061766.3
	WO 2016/089894 6/9/2016	2016- 0151608 A1 6/2/2016		2018- 0256869 9/13/2018	2018-500145 1/11/2018	3218026 9/20/2017	106999646A 8/1/2017
To be filed	Nationalized	Pending	Expired	Pending	Pending	Pending	Pending

Pending	2016- 015780 A1 6/9/2016	14/958,003 12/3/2015	Systems and Methods for Percutaneous Division of Fibrous Structures	Sn	010301/US	CarpX	PAVmed Inc.
Expired		62/086,950 12/3/2014	Systems and Methods for Percutaneous Division of Fibrous Structures	US	010300/PRO	CarpX	PAVmed Inc.
To be filed		TBD	Self-Anchoring Catheters and Methods of Use		010209/US/CONUS	NextCath	PAVmed Inc.
Pending		2017-530180 12/1/2015	Self-Anchoring Catheters and Methods of Use	Japan	010208/JP	NextCath	PAVmed Inc.
Pending	3226955 10/11/2017	15865776.7 12/1/2015	Self-Anchoring Catheters and Methods of Use	Europe	010207/EP	NextCath	PAVmed Inc.
Pending	107106813A 8/29/2017	201580065441.2 12/1/2015	Self-Anchoring Catheters and Methods of Use	China	010206/CN	NextCath	PAVmed Inc.
Pending		2,969,448 12/1/2015	Self-Anchoring Catheters and Methods of Use	Canada	010205/CA	NextCath	PAVmed Inc.
Pending		2015355062 12/1/2015	Australia Self-Anchoring Catheters and Methods of Use	Australia	010204/AU	NextCath	PAVmed Inc.

	8/30/2018						
Pending	2018- 0242995	15/964,531 4/27/2018	Systems and Methods for	SU	010309-US/DIV US	CarpX	PAVmed Inc.
Pending	2018- 501847 1/25/2018	2017-530119 12/3/2015	Systems and Methods for Percutaneous Division of Fibrous Structures	Japan	010308/JP	CarpX	PAVmed Inc. (
Pending	3226783 10/11/2017	15865054.9 12/3/2015	Systems and Methods for Percutaneous Division of Fibrous Structures	Europe	010307/EP	CarpX	PAVmed Inc.
Pending	107106200A 8/29/2017		Systems and Methods for Percutaneous Division of Fibrous Structures	China	010306/CN	CarpX	PAVmed Inc.
Pending		2,969,579 12/3/2015	Systems and Methods for Percutaneous Division of Fibrous Structures	Canada	010305/CA	CarpX	PAVmed Inc.
Pending		2015358424 12/3/2015	Systems and Methods for Percutaneous Division of Fibrous Structures	Australia	010304/AU	CarpX	PAVmed Inc.
To be filed		TBD	Enhanced CarpX	SU	010303/US	CarpX	PAVmed Inc.
Nationalized	6/9/2016	PCT/US15/063703WO 12/3/2015 2016 6/9/.	Systems and Methods for Percutaneous Division of Fibrous Structures	PCT	010302/PCT	CarpX	PAVmed Inc. (

PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	
Caldus	Caldus	Caldus	Caldus	Caldus	CarpX	
010405/EP	010404/PCT	010403/US	010401/PRO	010400/PRO	010310/US/DIV	
EP	PCT	US	Sn	Sn	US	
Continuious Flow Balloon Catheter Systems and Methods of Use	Continuious Flow Balloon Catheter Systems and Methods of Use	Continuious Flow Balloon Catheter Systems and Methods of Use	Continuous Flow Thermal Ablation Balloon Catheter Systems and Methods of Use	Continuous Flow Balloon Catheter Systems and Methods of Use	Systems and Methods for Percutaneous Division of Fibrous Structures	Percutaneous Division of Fibrous Structures
16762527.6 3/10/2016	)21804	15/067,148 3/10/2016	62/131,217 3/10/2015	62/131,214 3/10/2015	15/964,550 4/27/2018	
3267955 1/17/2018	#WO 2016/145214 9/15/2016	2016- 0262823 A1 9/15/2016			2018- 0271552 9/27/2018	
	I				1	
Pending	Nationalized	Pending	Expired	Expired	Pending	

PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.
c. NextFlo	c. NextFlo	c. NextFlo	c. Caldus	c. Caldus
010505/EP/DIV	010504/EP (previously Pavilion Holdings 010304)	010501/US (previously Pavilion Holdings 010301)	010407/DIV2	010406/DIV1
EP	ΕP	SO	US	US
System and Methods for Infusion of Fluids Using Stored Potential Energy and A Variable Flow Resistor	System and Methods for Infusion of Fluids Using Stored Potential Energy and A Variable Flow Resistor	System and Methods for Infusion of Fluids Using Stored Potential Energy and A Variable Flow Resistor	Continuous Flow Balloon Catheter Systems and Methods of Use	Continuous Flow Balloon Catheter Systems and Methods of Use
TBD	11751472.9 3/4/2011	13/041,296 3/4/2011	15/923,224 3/16/2018	15/923,140 3/16/2018
	2542297 1/9/2013	2011- 0251579 10/13/2011	2018- 0199984 7/19/2018	2018- 0199983 7/19/2018
		8,622,976 1/7/2014		
To be filed	Pending	Granted	Pending	Pending

To be filed			TBD	With Various Surgical	S	010900/US		PAVmed Inc.
To be filed			TBD	Variable Flow Resistor	US	010800/US	NextFlo	PAVmed Inc.
To be filed			TBD	Deflected Needle for Delivery of Local Anesthetic to Vessel Sheath	Sn	010700/US		PAVmed Inc.
Granted	9,155,834 <b>Granted</b> 10/13/2015	2014- 9,155,834 0083529 A1 10/13/2015 3/27/2017	14/094,046 12/2/2013	System and Methods for Infusion of Fluids Using Stored Potential Energy and A Variable Flow Resistor	US	010506/DIV (previously Pavilion Holdings 010306)	NextFlo	PAVmed Inc. 1

# Schedule B

### Trademarks

PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	PAVmed Inc.	Grantor PA
0	0	0	0	0	0	0	0	0	0	0	PAVmed Code Matter #
030902/TM	030901/TM	030900/TM	030800/TM	030700/TM	030600/TM	030500/TM	030400/TM	030300/TM	030200/TM	030100/TM	Aatter#
UK	EU	US	US	US	US	US	US	US	US	US	Country
CARPX	CARPX	CARPX	INNOVATING AT THE SPEED OF LIFE	PAVMED LOGO	PAVmed	PAVMED	PAVILION MEDICAL 86/603,804 4/20/2015	PAVILION	PAVMED	PORTIO	Title
UK00003302860 4/10/2018	17885979 4/10/2018	87/828,085 3/9/2018	86/641,166 5/26/2015	86/603,810 4/20/2015	TBD	86/603,807 4/20/2015	86/603,804 4/20/2015	86/603,802 4/20/2015	86/603,808 4/20/2015	86/464,855 11/25/2014	Application No. Application Date
UK00003302860 Registered 7/13/2018	017885978 8/20/2018										Registration No. Issue Date
Registered	Registered	Pending	Pending	Pending		Pending	Pending	Pending	Pending	Abandoned	Status

PAVmed Inc.		030903/TM	Brazil	CARPX	915801930	Pending
					9/4/2018	,
PAVmed Inc.		030904/TM	Japan	CARPX	2018-95208 7/25/2018	Pending
PAVmed Inc.		030905/TM	Canada	CARPX	TBD	To be filed
PAVmed Inc.		031000/TM	US	CARPEX	87/828,080 3/9/2018	Pending
Lucid Transi Diagnostics Inc. Lucid Diagn	ferred to ostics	031100/TM	US	ESOCHECK	88/090,111 8/23/2018	Pending
Lucid Transt Diagnostics Inc. Lucid Diagn	erred to ostics	031101/TM	US	ESOCHEK	88/090,114 8/23/2018	Pending

Schedule C
Copyrights
None.

TRADEMARK **REEL: 006517 FRAME: 0638** 

**RECORDED: 01/04/2019**