

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6985388

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
PI-CARDIA LTD.	10/21/2021

RECEIVING PARTY DATA

Name:	KREOS CAPITAL VI (EXPERT FUND) L.P.
Street Address:	47 ESPLANADE
City:	ST HELIER
State/Country:	JERSEY

PROPERTY NUMBERS Total: 44

Property Type	Number
Application Number:	13055507
Application Number:	13514090
Application Number:	14362405
Application Number:	14390836
Application Number:	14759228
Application Number:	14897652
Application Number:	15418919
Application Number:	15723379
Application Number:	15766830
Application Number:	16087649
Application Number:	16341924
Application Number:	16852694
Application Number:	16894999
Application Number:	17464890
Application Number:	61083934
Application Number:	61096061
Application Number:	61162343
Application Number:	61267029
Application Number:	61356617
Application Number:	61566766
Application Number:	61621005

PATENT

Property Type	Number
Application Number:	61639929
Application Number:	61749440
Application Number:	61835596
Application Number:	62238250
Application Number:	62315810
Application Number:	62412960
Application Number:	62849919
Application Number:	62870068
Application Number:	63048664
Application Number:	63220588
Application Number:	63231826
PCT Number:	US2009051784
PCT Number:	US2010058810
PCT Number:	US2012067812
PCT Number:	US2013035346
PCT Number:	US2014010265
PCT Number:	US2014040991
PCT Number:	IB2016055993
PCT Number:	IB2017051798
PCT Number:	IB2017056657
PCT Number:	IB2018057667
PCT Number:	IB2021056025
PCT Number:	IB2020054729

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: aaron.lewin@jmbdavis.com

Correspondent Name: JMB DAVIS BEN-DAVID

Address Line 1: 8 HARTOM STREET

Address Line 2: PO BOX 45087

Address Line 4: JERUSALEM, ISRAEL

ATTORNEY DOCKET NUMBER:	96088/60.995
NAME OF SUBMITTER:	AARON LEWIN
SIGNATURE:	/Aaron Lewin/
DATE SIGNED:	10/25/2021

Total Attachments: 16

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U.S. INTELLECTUAL PROPERTY SECURITY AGREEMENT

This U.S. INTELLECTUAL PROPERTY SECURITY AGREEMENT (the “**IP Security Agreement**”) is entered as of October 21, 2021 is made by and between (i) Pi-Cardia Ltd. (the “**Grantor**”) a company incorporated in Israel under registered number 514181379 whose registered office is at 5 David Fikes Street, Rehovot, 7632805, Israel, and (ii) Kreos Capital VI (Expert Fund) LP (“**Kreos**”), a limited partnership incorporated in Jersey whose registered office is at 47 Esplanade, St Helier, Jersey.

WHEREAS, the Grantor and Kreos have entered into that certain agreement for the provision of a loan facility of up to US\$21,000,000 dated on or about the date hereof (the “**Loan Agreement**”); and

WHEREAS, under the terms of the Loan Agreement, Grantor has agreed, among other things, to grant security interest in the intellectual property of the Grantor to Kreos, and the Grantor has agreed to execute this IP Security Agreement for recording with the U.S. Patent and Trademark Office on any intellectual property owned by it throughout the term of this IP Security Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, the parties agree as follows:

Section 1. Grant of Security. Subject to the provisions of the Loan Agreement, Grantor hereby grants to Kreos a security interest, in and to all right, title and interest to (i) the registered United States patents and pending applications as set forth in Schedule A hereto together with all reissues, divisions, continuations, continuations-in-part, extensions and reexaminations thereof, and all rights therein provided by international treaties or conventions (the “**Patents**”), (ii) the registered trademarks, service marks, trade names and domain names, and applications therefore as set forth in Schedule A hereto together with all goodwill associated with such trademarks and service marks and all rights therein provided by international treaties or conventions (the “**Trademarks**”), and (iii) all copyrights and registrations and applications therefore set forth in Schedule A (the “**Copyrights**”), all as currently owned by the Grantor or which shall be owned in the future by the Grantor subject to Section 7 below (collectively, the “**Collateral**”). Schedule A shall be updated pursuant to the provisions of Section 3.9 of the Loan Agreement upon the application for, or acquisition of, any new Patents or Trademarks in the United States by the Grantor, and the Grantor shall file amendments to Schedule A to that effect, all pursuant and subject to said subsection of the Loan Agreement. Notwithstanding anything to the contrary in this IP Security Agreement, it is hereby clarified that with respect to the intellectual property rights developed with funding provided by the Israel Innovation Authority (the “**Funded IP**” and the “**IIA**”, respectively), the security interest herein shall be subject to the consent of the IIA, attached hereto as Schedule B (the “**IIA Consent**”), and that the sale, assignment or another transfer of the Funded IP may be subject to the IIA Consent and the provisions of applicable grant certificates or undertaking issued by the IIA and applicable Israeli laws and regulations and any payment obligation imposed thereunder. In connection therewith, Kreos provided to the Grantor an undertaking to the IIA in the form attached hereto as Schedule C.

Notwithstanding the grant of the security interest set forth in this Section 1 or in the Loan Agreement, the Collateral shall not include (i) any contract, instrument, property right or agreement to which the Grantor is a party or any of its rights or interests thereunder, as of the date of this IP Security Agreement (collectively, the “**Grantor Rights**”) if and for so long as the grant to Kreos of the security interest therein shall constitute or result in a breach pursuant to the terms of, or a default under, any such contract; it being clarified that any and all proceeds actually received by the Grantor pursuant to or in connection with such Grantor Rights to be part of the Collateral, except if otherwise expressly excluded herein; (ii) any asset, the granting of a security interest in which would be void or illegal under any applicable governmental law, rule or regulation; and (iii) any right, title, interest or asset of the Grantor that

is disposed of by the Grantor in compliance with the terms of this A IP Security Agreement or the Loan Agreement.

Section 2. Security for Obligations. The grant of a security interest in the Collateral by Grantor to Kreos under this IP Security Agreement secures the performance of all obligations and the payment of all money and liabilities owed or incurred by the Grantor to Kreos now or hereafter existing under or in respect of the Loan Agreement, as may be amended from time to time (excluding for the avoidance of doubt liabilities related to the Conversion Shares (once issued), Warrant Instrument and/or any shares issuable thereunder) (the “**Secured Obligations**”).

Section 3. Recordation. Grantor authorizes and requests that the Commissioner of Patents and Trademarks record this IP Security Agreement.

Section 4. Right to Request Information. Kreos shall have the right to request, and Grantor shall promptly provide upon such request, information reasonably required in order to confirm that Schedule A is updated.

Section 5. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Loan Agreement. The Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of Kreos with respect to the Collateral are more fully set forth in the Loan Agreement and the debentures (Fixed Charge and Floating Charge – as defined therein) annexed thereto, and in the event of any contradiction between this IP Security Agreement and the Loan Agreement or any document annexed thereto, the provisions of this IP Security Agreement will prevail.


Section 6. Governing Law; Forum for Dispute Resolution. This IP Security Agreement shall be governed by and construed according to the laws of the State of Israel, without regard to the conflict of laws provisions thereof. Any dispute arising under or in relation to this IP Security Agreement shall be resolved in the competent court for the Tel Aviv-Jaffa district, and each of the parties hereby submits exclusively and irrevocably to the jurisdiction of such court.

Section 7. Termination. This IP Security Agreement and the security interest granted hereunder to Kreos shall terminate and be of no force upon satisfaction in full of the Secured Obligations. Upon termination of this IP Security Agreement and the security interest granted to Kreos hereunder, Kreos shall execute all documents reasonably necessary to remove the security interest granted by Grantor hereunder and take any action reasonably necessary to remove the security interest granted by Grantor hereunder, including without limitation, execute all documents reasonably necessary for the filing of a Termination Statement with the USPTO for the affected Patents and Trademarks.

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IN WITNESS WHEREOF, Grantor and Kreos have caused this IP Security Agreement to be
duly executed and delivered by their officers thereunto duly authorized as of the date first
above written.

PI-CARDIA LTD.

By: 
Name: Eyal Kalka
Title: Executive Director

KREOS CAPITAL VI (EXPERT FUND) LP

By: _____
Name: _____
Title: _____

IN WITNESS WHEREOF, Grantor and Kreos have caused this IP Security Agreement to be duly executed and delivered by their officers thereunto duly authorized as of the date first above written.

PI-CARDIA LTD.

By: _____

Name: _____

Title: _____

KREOS CAPITAL VI (EXPERT FUND) LP

DocuSigned by:

By: Mark Collins

Name: Mark Collins

Title: Director

SCHEDULE A

Dekel Patent Ltd.

Beit Harofim
18 Menuha VeNahala Street, Room 27
Rehovot 76209
Israel



Tel: 972-8-9495334 טל.
Fax: 972-8-9495323 פקס
E-mail: dekeltd@netvision.net.il

דקל פטנט בע"מ

בית הרופאים
מנוחה ונחלה 18, חדר 27
רחובות 76209

30 September 2021

PI-CARDIA LTD.
10 Plaut Street
Rehovot 7670609

Re: Patent Status

Dear Sirs,

The following pages provide the current status of the patent applications filed on behalf of Pi-Cardia Ltd.

Best regards,



David Klein
US Patent Agent 41118
Dekel Patent Ltd.

FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 1926GOL				
Assigned to Pi-R-Squared Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/083934	27 July 2008		
US	61/096061	11 Sep 2008		
US	61/162343	23 Mar 2009		
PCT	PCT/US2009/051784	27 July 2009		
US	13/055507	24 Jan 2011	9717513 1 Aug 2017	
Japan	2011-520248	27 July 2009	5588978 granted 10 Sept 2014	
Europe	09802244.5	27 July 2009	2326264 15 Nov 2017	Validated in Germany, France, UK, Spain, Italy, Ireland, Netherlands, Switzerland

Note: There were 2 other provisionals 61/056088 (filed 27 May 2008) and 61/061626 (filed 15 June 2008) which were abandoned and not pursued in further filings.

Note: In all countries except US the official filing date is the PCT filing date

FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2038GOL				
Assigned to Pi-R-Squared Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/267029	5 Dec 2009		
US	61/356617	20 Jun 2010		
PCT	PCT/US2010/058810	3 Dec 2010		
US	13/514090	5 June 2012	9554816 31 January 2017	
US	15/418919	30 Jan 2017		Abandoned for continuation 17/464890
US	17/464890	2 Sep 2021		Pending
Europe	10803420.8	3 Dec 2010	2506781 21 March 2018	Validated in Germany, France, UK, Italy, Ireland, Netherlands, Switzerland
China	201080062697.5	3 Dec 2010	102791207 Granted 9 Sept 2015	
India	5858/DELNP/2012	3 Dec 2010	350924 Granted 5 Nov 2020	

FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2133GOL				
Assigned to Pi-R-Squared Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/566766	5 Dec 2011		
PCT	PCT/US12/67812	5 Dec 2012		
US	14/362405	3 Jun 2014	10143452 4 Dec 2018	
Europe	12823063.8	5 Dec 2012	2787902 1 Oct 2018	Validated in Germany, France, UK, Italy, Ireland, Netherlands, Switzerland
China	201280059535.5	5 Dec 2012	104023656 17 January 2017	
India	4325/DELNP/2014	5 Dec 2012	363726 31 Mar 2021	
Japan	2014-544996	5 Dec 2012	6210236 11 Oct 2017	

PERCUTANEOUS GUIDANCE AND PROTECTION SLEEVE				
Our Ref 2160GOL				
EMBOLI PROTECTION SLEEVE OVER CATHETER				
Our Ref 2171GOL				
Assigned to Pi-R-Squared Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/621005	6 Apr 2012		
US	61/639929	30 Apr 2012		
PCT	PCT/US13/35346	5 Apr 2013		Combines 2160 + 2171
US	14/390836	6 Oct 2014	9895216 20 Feb 2018	
Europe	13724921.5	5 Apr 2013	2833825 30 Nov 2018	Validated in Germany, France, UK, Italy, Ireland, Netherlands
China	2013800297810	5 Apr 2013	CN104334118 January 2017	

STABILIZER ASSEMBLY FOR FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2256GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/749440	7 Jan 2013		
PCT	PCT/US14/010265	5 Jan 2014		
US	14/759228	5 July 2015	10143481 4 Dec 2018	
Europe	14706350.7	5 Jan 2014	2941210 16 Nov 2016	
China	201480004122.6	5 Jan 2014	105050513 20 June 2017	Validated in Netherlands, Ireland, France, Germany, Italy, UK
India	5948/DELNP/2015	5 Jan 2014		Pending
Japan	2015-551796	5 Jan 2014	6270872 12 Jan 2018	

PERCUTANEOUS EMBOLI PROTECTION SLEEVE				
Our Ref 2309GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	61/835596	16 Jun 2013		
PCT	PCT/US14/40991	5 Jun 2014		
US	14/897652	12 Dec 2015		Abandoned
China	201480034294.8	5 Jun 2014	105451684 19 Apr 2017	
Europe	14737082.9	5 Jun 2014	3010442 7 Dec 2016	Validated in France, UK, Ireland, Netherlands, Germany, Italy
India	11369/DELNP/2015	5 Jun 2014		Pending
Japan	2016-519545	5 Jun 2014	6403763 10 Oct 2018	

IMPACTOR FOR FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2481GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	62/238250	7 Oct 2015		
PCT	PCT/IB2016/055993	6 Oct 2016		
US	15/766830	9 Apr 2018	10675044 9 June 2020	
US	16/894999	8 Jun 2020		Pending
Europe	16795412.2	6 Oct 2016	3359063 17 Jun 2020	Validated in Switzerland, Germany, France, UK, Italy, Netherlands, Ireland

REMODELING OF CALCIFIED AORTIC VALVE LEAFLETS				
Our Ref 2534GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	62/315810	31 Mar 2016		
PCT	PCT/IB2017/051798	29 Mar 2017		
US	16/087649	23 Sep 2018	10980553 20 Apr 2021	
Europe	17718608.7	29 Mar 2017	3435891 13 Nov 2019	Validated in Switzerland, Germany, France, UK, Italy, Netherlands, Ireland
China	201780026430.2	29 Mar 2017	109069168 9 Apr 2021	
Japan	2018-550842	29 Mar 2017	6930997 1 Sep 2021	

CATHETER BASED DEVICE FOR TREATMENT OF CALCIFIED VALVE LEAFLET				
Our Ref 2576GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	62/412960	26 Oct 2016		
PCT	PCT/IB2017/056657	26 Oct 2017		
US	16/341924	15 April 2019		Pending

IMPACTOR AND STABILIZER FOR FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2651GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	15/723379	3 Oct 2017	10624658 21 Apr 2020	
PCT	PCT/IB2018/057667	3 Oct 2018		
US	16/852694 Continuation of 15/723379	20 Apr 2020		Pending
Europe	18801028.4	3 Oct 2018		Pending
China	201880064205.2	3 Oct 2018		Pending
Japan	2020-517864	3 Oct 2018		Pending
India	202017018688	3 Oct 2018		Pending

IMPACTOR AND STABILIZER FOR FRACTURING CALCIFICATIONS IN HEART VALVES				
Our Ref 2891GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	63/048664	7 July 2020		
PCT	PCT/IB2021/056025	6 July 2021		National phase 7 Jan 2023

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TRANSCATHETER VALVE LACERATION DEVICE AND METHOD				
Our Ref 2796GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	62/849919	19 May 2019		
US	62/870068	3 July 2019		
PCT	PCT/IB2020/054729	19 May 2020		National phase 19 Nov 2021

TRANSCATHETER MITRAL VALVE LACERATION DEVICE AND METHOD				
Our Ref 2975GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	63/220588	12 Jul 2021		Continuation-in-part of 2796 and to be filed only in US to cover mitral valve procedure

TRANSCATHETER DEVICE FOR SCORING CALCIFICATIONS AND FOR CUTTING VALVE TISSUE				
Our Ref 2976GOL				
Assigned to Pi-Cardia Ltd.				
Country	Application No.	Filing Date	Grant	Last Action
US	63/231826	11 Aug 2021		New device configuration