

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM692255

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
NOVUM MEDICAL, INC.		11/30/2021	Corporation: DELAWARE
RECEIVING PARTY DATA			
Name:	DSM VENTURING B.V.		
Street Address:	URMONDERBAAN 22		
City:	6167 RD GELEEN		
State/Country:	NETHERLANDS		
Entity Type:	Besloten Vennootschap (B.V.): NETHERLANDS		
PROPERTY NUMBERS Total: 5			
Property Type	Number	Word Mark	
Registration Number:	5800770	TBF	
Registration Number:	4990359	VITRIUM	
Registration Number:	5256473	BIO2	
Registration Number:	4478356	BIO2 TECHNOLOGIES	
Serial Number:	90453583	NOVUM	
CORRESPONDENCE DATA			
Fax Number:	6173459020		
<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>			
Phone:	617-345-9000		
Email:	tmdocket@hinckleyallen.com		
Correspondent Name:	Alexander P. Montgomery		
Address Line 1:	28 State Street, 30th Floor		
Address Line 2:	Hinckley, Allen & Snyder, LLP		
Address Line 4:	Boston, MASSACHUSETTS 02109		
ATTORNEY DOCKET NUMBER:	067577-0177753		
NAME OF SUBMITTER:	Alexander P. Montgomery		
SIGNATURE:	/Alexander P. Montgomery/		
DATE SIGNED:	12/03/2021		
Total Attachments: 14			

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (“**IP Security Agreement**”), dated as of November 30, 2021 is made by and between NOVUM MEDICAL, INC., a Delaware corporation (the “**Grantor**”) and DSM VENTURING B.V., a Dutch *besloten vennootschap* with an address of Urmonderbaan 22, 6167 RD Geleen, The Netherlands, as collateral agent (the “**Collateral Agent**”).

WHEREAS, the Grantor has entered into that certain Note Purchase Agreement dated as of November 30, 2021, with the purchasers party thereto (the “**Purchasers**”) and the Collateral Agent (the “**Purchase Agreement**”), and in connection therewith, the Grantor has delivered those certain Secured Convertible Promissory Notes to the Purchasers (the “**Notes**” and together with the Purchase Agreement, the “**Security Agreement**”); and

WHEREAS, to secure its obligations under the Security Agreement, the Grantor granted and created in favor of the Collateral Agent, for the benefit of the Purchasers, 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 governmental authorities, including, but not limited to, the United States Patent and Trademark Office.

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

1. Grant of Security. The Grantor hereby pledges and grants to the Collateral Agent, for the benefit of the Purchasers, a security interest in and to all of the right, title, and interest of the Grantor in, to, and under the following (the “**IP Collateral**”):

(a) the patents and patent applications set forth in Schedule 1 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**”), excluding only United States intent-to-use trademark applications to the extent that, and solely during the period in which, the grant, attachment, or enforcement of a security interest therein would, under applicable federal law, impair the registrability of such applications or the validity or enforceability of registrations issuing from such applications;

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

(d) 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 Patents and Trademarks; and

(e) any and all claims and causes of action, with respect to any of the foregoing Patents and Trademarks, 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, 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.

Notwithstanding the foregoing, IP Collateral shall not include any intent-to-use trademark application prior to the filing of a “Statement of Use” or “Amendment to Allege Use” with respect thereto, to the extent, if any, that, and solely during the period, if any, in which, the grant of a security interest therein would impair the validity or

enforceability of such intent-to-use trademark application under applicable federal law.

2. Recordation. The Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks, and any other government officials to record and register this IP Security Agreement upon request by the Collateral Agent.

3. Transaction Documents. This IP Security Agreement has been entered into pursuant to and in conjunction with the Security Agreement, which is hereby incorporated by reference. The provisions of the Security Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of the Collateral Agent with respect to the IP Collateral are as provided by 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 and any claim, controversy, dispute, or cause of action (whether in contract or tort or otherwise) based upon, arising out of, or relating to this IP Security Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of Delaware, without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).

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

NOVUM MEDICAL, INC.

DocuSigned by:

Thomas A. Afzal

By: _____

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
Name: Thomas A. Afzal

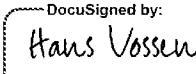
Title: President and CEO

Acknowledged and Agreed:

DSM VENTURING B.V.

as Collateral Agent

DocuSigned by:

By: _____
Name: Pieter Wolters
Title: Director

DocuSigned by:

By: _____
Name: Hans Vossen
Title: Director

**SCHEDULE 1
Patents**

Filing Date	Serial No	Country	Title	Publication No	Publication Date	Issue Date	Patent No
7/10/09	61/224,675	US	Devices and Methods for Tissue Engineering				
8/18/09	61234768	US	Devices and Methods for Tissue Engineering				
10/7/09	61249449	US	Devices and Methods for Tissue Engineering				
5/6/10	61331961	US	Devices and Methods for Tissue Engineering				
2/19/10	61306136	US	Devices and Methods for Tissue Engineering				
9/10/10	61381666	US	Devices and Methods for Tissue Engineering				
7/8/10	12832391	US	Devices and Methods for Tissue Engineering	US-2011-0106255-A1	5/5/11	12/25/12	8337876
7/8/10	BR1120120003275	BR	Devices and Methods for Tissue Engineering				
7/8/10	2767714	CA	Devices and Methods for Tissue Engineering	2767714	1/13/11	9/26/17	CA 2,767,714
7/8/10	2010800309585	CN	Devices and Methods for Tissue Engineering	CN 102470195	5/23/12	7/23/14	ZL 201080030958.5

7/8/10	107978314	EP	Devices and Methods for Tissue Engineering	2453936	5/23/12	11/21/18	2453936
7/8/10	107978314	DE	Devices and Methods for Tissue Engineering			11/21/18	2453936
7/8/10	107978314	FI	Devices and Methods for Tissue Engineering			11/21/18	2453936
7/8/10	107978314	FR	Devices and Methods for Tissue Engineering			11/21/18	2453936
7/8/10	107978314	GB	Devices and Methods for Tissue Engineering			11/21/18	2453936
7/8/10	107978314	IE	Devices and Methods for Tissue Engineering			11/21/18	2453936
7/8/10	217339	IL	Devices and Methods for Tissue Engineering			8/29/14	217339
7/8/10	1105DELNP2012	IN	Devices and Methods for Tissue Engineering				
7/8/10	2012519718	JP	Devices and Methods for Tissue Engineering	2012-532679		3/13/15	5711735
7/8/10	1020127003355	KR	Devices and Methods for Tissue Engineering	1020120065322	6/20/12	11/30/16	10-1683328
7/8/10	PCTUS2010041331	WO	Devices and Methods for Tissue Engineering	WO 2011/005933	1/13/11		
7/8/10	12832394	US	Devices and Methods for	US-2011-0106272-A1	5/5/11	2/18/14	8652368

			Tissue Engineering				
7/8/10	107978330	BE	Devices and Methods for Tissue Engineering				
7/8/10	BR1120120003267	BR	Devices and Methods for Tissue Engineering				
7/8/10	2767715	CA	Devices and Methods for Tissue Engineering			9/26/17	CA 2,767,715
7/8/10	107978330	CH	Devices and Methods for Tissue Engineering				
7/8/10	2010800309570	CN	Devices and Methods for Tissue Engineering	CN102470194	5/23/12	7/23/14	Z 201080030957.0
7/8/10	107978330	DE	Devices and Methods for Tissue Engineering				
7/8/10	107978330	EP	Devices and Methods for Tissue Engineering	2451494	5/16/12		
7/8/10	107978330	FI	Laitteet ja menetelmät kudusrakenteita varten				
7/8/10	107978330	FR	Devices and Methods for Tissue Engineering				
7/8/10	107978330	GB	Devices and Methods for Tissue Engineering				
7/8/10	107978330	IE	Devices and Methods for Tissue				

			Engineering				
7/8/10	217340	IL	Devices and Methods for Tissue Engineering			8/29/14	217340
7/8/10	1107DELNP2012	IN	Devices and Methods for Tissue Engineering				
7/8/10	2012519719	JP	Devices and Methods for Tissue Engineering	2012-532680		3/13/15	5711736
7/8/10	1020127003354	KR	Devices and Methods for Tissue Engineering			3/23/17	10-1721276
7/8/10	PCTUS2010041333	WO	Devices and Methods for Tissue Engineering	WO 2011/005935	1/13/11		
9/10/10	61381673	US	Devices and Methods for Tissue Engineering				
12/17/10	61424321	US	Method and Apparatus for a Porous Orthopedic Implant				
10/6/10	12898797	US	Devices and Methods for Tissue Engineering	US-2011-0082564-A1	4/7/11		
10/6/10	BR1120120074890	BR	Devices and Methods for Tissue Engineering				
10/6/10	2776169	CA	Devices and Methods for Tissue Engineering				
10/6/10	2010800448963	CN	Devices and Methods for Tissue			10/22/14	ZL 201080044896.3

			Engineering				
10/6/10	108225681	EP	Devices and Methods for Tissue Engineering				
10/6/10	218633	IL	Devices and Methods for Tissue Engineering				
10/6/10	3490DELNP2012	IN	Devices and Methods for Tissue Engineering				
10/6/10	2012533261	JP	Devices and Methods for Tissue Engineering	2013-507184			
10/6/10	1020127011634	KR	Devices and Methods for Tissue Engineering				
10/6/10	PCTUS2010051555	WO	Devices and Methods for Tissue Engineering	WO 2011/044182	4/14/11		
1/12/11	61431996	US	Devices and Methods for Tissue Engineering				
3/11/11	13046179	US	Devices and Methods for Tissue Engineering	US-2011-0204537-A1	8/25/11		
3/11/11	13046192	US	Devices and Methods for Tissue Engineering	US-2011-0206828-A1	8/25/11		
5/3/11	13099447	US	Devices and Methods for Tissue Engineering	US-2012-0219635-A1	8/30/12		
10/31/12	112012028020	BR	Devices and Methods for Tissue Engineering			11/27/18	BR 112012028020-1

10/30/12	2797976	CA	Devices and Methods for Tissue Engineering				
5/3/11	2011800222730	CN	Devices and Methods for Tissue Engineering				
5/3/11	118184969	EP	Devices and Methods for Tissue Engineering	2566530			
5/3/11	222479	IL	Devices and Methods for Tissue Engineering			3/30/17	222479
5/3/11	10466DELNP2012	IN	Devices and Methods for Tissue Engineering				
5/3/11	2013509157	JP	Devices and Methods for Tissue Engineering			9/4/15	5801382
11/30/12	1020127031552	KR	Devices and Methods for Tissue Engineering				
5/3/11	PCTUS1134880	WO	Devices and Methods for Tissue Engineering	WO 2012/024004	2/23/12		
7/22/11	13188944	US	Devices and Methods for Tissue Engineering	US-2012-0183429-A1	7/19/12		
9/8/11	61532416	US	Devices and Methods for Tissue Engineering				
9/9/11	13228886	US	Method of Fabricating a Porous Orthopedic Implant	US-2012-0233836-A1	9/20/12	6/25/13	8468673

9/9/11	13228887	US	Devices and Methods for Tissue Engineering	US-2012-0239162-A1	9/20/12		
12/15/11	13326665	US	Method and Apparatus for a Porous Orthopedic Implant	US-2012-0158139-A1	6/21/12		
12/15/11	118480474	EP	Method and Apparatus for a Porous Orthopedic Implant				
12/15/11	PCTUS2011065082	WO	Method and Apparatus for a Porous Orthopedic Implant	WO 2012/082989	10/26/12		
1/9/12	13345810	US	Devices and Methods for Tissue Engineering	US-2012-0179271-A1	7/12/12		
1/9/12	2823203	CA	Devices and Methods for Tissue Engineering			2/12/19	2823203
1/9/12	2012800053671	CN	Devices and Methods for Tissue Engineering			6/3/15	ZL 201280005367.1
1/9/12	127341535	DE	Devices and Methods for Tissue Engineering				
1/9/12	127341535	EP	Devices and Methods for Tissue Engineering	2663343	11/20/13	12/6/17	EP 2663343
1/9/12	127341535	FR	Devices and Methods for Tissue Engineering				
1/9/12	127341535	GB	Devices and Methods for Tissue				

			Engineering				
1/9/12	127341535	IE	Devices and Methods for Tissue Engineering				
1/9/12	PCTUS201220578	WO	Devices and Methods for Tissue Engineering	WO 2012/096858	10/26/12		
3/2/12	13410458	US	Devices and Methods for Tissue Engineering	US-2013-0228947-A1		6/30/15	9066998
10/22/14	201380021110	CN	Devices and Method for Tissue Engineering	CN 104245005 A	12/24/14	5/11/16	ZL 201380021110.X
3/1/13	PCTUS1328504	WO	Devices and Method for Tissue Engineering	WO 2013/130928			
4/17/12	13448965	US	Devices and Methods for Tissue Engineering	US-2012-0203355-A1	8/9/12	3/18/14	8673016
8/14/12	13585325	US	Devices and Methods for Tissue Engineering	US-2014-0050765-A1			
8/13/13	PCTUS201354630	WO	Devices and Methods for Tissue Engineering	WO 2014/028424			
8/30/12	13598721	US	Devices and Methods for Tissue Engineering	US-2013-0066427-A1			
11/16/12	13678644	US	Devices and Methods for Tissue Engineering	US-2013-0173001-A1		7/29/14	8790682
6/3/13	13908627	US	Method of Fabricating a Porous Orthopedic	US-2014-0175693-A1		2/24/15	8959741

			Implant				
8/2/13	61861793	US	Resorbable Interbody Device				
2/14/14	14180638	US	Devices and Methods for Tissue Engineering	US-2015-0238325-A1			
7/28/14	14/444,262	US	Resorbable Interbody Device	US-2015-0073556-A1		10/3/17	9775721
7/28/14	PCT/US2014-48411	WO	Resorbable Interbody Device	WO 2015/017324			
8/3/16	15/227,007	US	Devices and Methods for Tissue Engineering	US-2017-0095351-A1		5/15/18	9968463
3/21/17	62/474,450	US	Orthopedic Implant Insertion Instrument				
3/20/18	15/926,017	US	Orthopedic Implant Insertion Instrument	US-2018-0360622-A1	12/20/18	3/30/21	10959858
6/18/21	63/212,550	US	Composite Bioinert Metal Fiber-Glass Fiber Orthopedic Implants				
8/5/21	63/229,793	US	Resorbable Surface Enhancement of a Porous Coating				
10/11/21	63/254,240	US	Composite Silicon Nitride Fiber – Glass Fiber Orthopedic Implants				

SCHEDULE 2**Trademarks**

Jurisdiction	Serial No.	Registration No.	Reg. Date	Mark
U.S.	87/212,862	5,800,770	7/9/2019	TBF
U.S.	86/734,108	4,990,359	6/28/2016	VITRIUM
U.S.	85/743,953	5,256,473	8/1/2017	BIO2
U.S.	77/914,391	4,478,356	2/4/2014	Bio2 Technologies (and design)
U.S.	90/453,583			NOVUM