

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT8103101

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
SHOULDER INNOVATIONS, INC.		08/07/2023
RECEIVING PARTY DATA		
Name:	TRINITY CAPITAL INC., AS COLLATERAL AGENT	
Street Address:	1 N. FIRST STREET	
Internal Address:	FLOOR 3	
City:	PHOENIX	
State/Country:	ARIZONA	
Postal Code:	85004	
PROPERTY NUMBERS Total: 25		
Property Type	Number	
Patent Number:	8007538	
Patent Number:	11065125	
Patent Number:	9381086	
Patent Number:	8778028	
Patent Number:	10492926	
Patent Number:	9610166	
Patent Number:	10779952	
Patent Number:	10786265	
Patent Number:	9693784	
Patent Number:	D977643	
Patent Number:	10143559	
Patent Number:	8038719	
Patent Number:	11696772	
Application Number:	17435333	
Application Number:	16980335	
Application Number:	18058058	
Application Number:	17052126	
Application Number:	17652046	
Application Number:	17027493	

Property Type	Number
Application Number:	16701118
Application Number:	18058165
Application Number:	18058214
Application Number:	17379894
Application Number:	17652004
Application Number:	18349805

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: (619) 699-2708

Email: christian.cruz@us.dlapiper.com

Correspondent Name: DLA PIPER LLP (US)

Address Line 1: 4365 EXECUTIVE DRIVE

Address Line 2: SUITE 1100

Address Line 4: SAN DIEGO, CALIFORNIA 92121

NAME OF SUBMITTER: MATT SCHWARTZ

SIGNATURE: /s/ Matt Schwartz

DATE SIGNED: 08/08/2023

Total Attachments: 9

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*Execution Version***INTELLECTUAL PROPERTY SECURITY AGREEMENT**

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT ("Agreement") dated as of August 7, 2023, is made by SHOULDER INNOVATIONS, INC., a Delaware corporation, (the "Grantor"), in favor of TRINITY CAPITAL INC., a Maryland corporation, as administrative agent and collateral agent for the Lenders (as defined below) ("Administrative Agent").

RECITALS

A. Grantor has entered into a Loan and Security Agreement with the lenders from time to time party thereto (each, a "Lender" and collectively, the "Lenders") and the Administrative Agent, dated as of the date hereof (as amended, restated, or otherwise modified from time to time, the "Loan Agreement"). All capitalized terms used but not defined herein shall have the respective meanings given to them in the Loan Agreement.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Administrative Agent, for the benefit of the Lenders, a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

1. **Grant of Security Interest.** To secure its obligations under the Loan Agreement, Grantor grants and pledges to Administrative Agent, for the benefit of the Lenders, a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions, re-examination certificates, utility models, and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks"), except that the term "Intellectual Property Collateral" shall not include any of Grantor's right, title or interest in any intent-to-use United States trademark applications for which an amendment to allege use or statement of use has not been filed under 15 U.S.C. § 1051(c) or 15 U.S.C. § 1051(d), respectively, or if filed, has not been deemed in conformance with 15 U.S.C. § 1051(a) or examined and accepted, respectively, by the United States Patent and Trademark Office, provided that upon

such filing and acceptance, such intent-to-use applications shall be included in the definition of Intellectual Property Collateral;

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights, except that the term "Intellectual Property Collateral" shall not include any of Grantor's right, title or interest in any license, contract or agreement to which Grantor is a party or any of its right, title or interest thereunder to the extent, but only to the extent, and for so long as, that such a grant would, under the express terms of such license, contract or agreement result in a breach of the terms of, or constitute a default under, such license, contract or agreement;

(i) All amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

2. Recordation. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Administrative Agent.

Grantor hereby authorizes Administrative Agent to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property Collateral which Grantor obtains subsequent to the date of this Agreement and (b) file a duplicate original of this Agreement containing amended exhibits reflecting such new Intellectual Property Collateral.

3. Loan Documents. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Administrative Agent with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

4. Execution in Counterparts. This Agreement and any amendments, waivers, consents or supplements hereto may be executed in any number of counterparts, and by different parties hereto in separate counterparts, each of which when so delivered shall be deemed an original, but all of which counterparts shall constitute but one and the same instrument. Delivery of an executed counterpart of a signature page of this Agreement by facsimile, portable document format (.pdf) or other electronic transmission will be as effective as delivery of a manually executed counterpart hereof.

5. Successors and Assigns. The provisions of this Agreement shall inure to the benefit of the parties hereto and their respective successors and assigns. Grantor shall not assign its obligations under this Agreement without Administrative Agent's express prior written consent, and any such attempted assignment shall be void and of no effect. Administrative Agent may assign, transfer, or endorse its rights hereunder pursuant to the terms of the Loan Agreement without prior notice to Grantor, and all of such rights shall inure to the benefit of Administrative Agent's successors and assigns.

6. Governing Law. This Agreement has been negotiated and delivered to Administrative Agent in the State of Arizona, and shall have been accepted by Administrative Agent in the State of Arizona. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Arizona, excluding conflict of laws principles that would cause the application of laws of any other jurisdiction.

[Signature page follows.]

COPY VIEW

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

SHOULDER INNOVATIONS, INC., a Delaware corporation

DocuSigned by:
By: Matthew Ahearn
FE2EA5A8DBC4E7...
Name: Matthew Ahearn
Title: Chief Operating Officer

ADMINISTRATIVE AGENT:

TRINITY CAPITAL INC.,
a Maryland corporation

DocuSigned by:
By: Sarah Stanton
1846B5C9493453...
Name: Sarah Stanton
Title: General Counsel and Chief Compliance Officer

EXHIBIT A

COPYRIGHTS

None.

COPY VIEW

EXHIBIT B**PATENTS**

Title	Pat. No.	App. No.	Filing Date	Record Owner
SHOULDER IMPLANT FOR GLENOID REPLACEMENT	8,007,538	11/066,978	02/25/2005	SHOULDER INNOVATIONS, INC.
TOTAL SHOULDER PROSTHESIS HAVING INSET GLENOID IMPLANT CONVERTIBLE FROM ANATOMIC TO REVERSE	11,065,125	15/952,063	04/12/2018	SHOULDER INNOVATIONS, INC.
TOTAL REVERSE SHOULDER SYSTEMS AND METHODS	<i>Pending</i>	17/435,333	08/31/2021	SHOULDER INNOVATIONS, INC.
STEM FOR USE IN JOINT ARTHROPLASTY	9,381,086	13/308,221	11/30/2011	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	8,778,028	12/719,182	03/08/2010	SHOULDER INNOVATIONS, INC.
ALIGNMENT GUIDE FOR HUMERAL OR FEMORAL STEM REPLACEMENT PROSTHESES	10,492,926	14/845,136	09/03/2015	SHOULDER INNOVATIONS, INC.
CONVERTIBLE TOTAL SHOULDER PROSTHESIS	<i>Pending</i>	16/980,335	09/11/2020	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	9,610,166	14/329,853	07/11/2014	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	10,779,952	15/477,316	04/03/2017	SHOULDER INNOVATIONS, INC.
METHODS FOR LESS INVASIVE GLENOID REPLACEMENT	10,786,265	15/640,039	06/30/2017	SHOULDER INNOVATIONS, INC.
TOTAL REVERSE SHOULDER SYSTEMS AND METHODS	<i>Pending</i>	18/058,058	11/22/2022	SHOULDER INNOVATIONS, INC.
INSET/ONLAY GLENOID, POROUS COATED CONVERTIBLE GLENOID, AND HUMERAL HEADS WITH TEXTURED UNDERSIDES	<i>Pending</i>	17/052,126	10/30/2020	SHOULDER INNOVATIONS, INC.
METHODS FOR LESS INVASIVE GLENOID REPLACEMENT	9,693,784	13/776,405	02/25/2013	SHOULDER INNOVATIONS, INC.
HUMERAL STEM IMPLANT	D977,643	29/683,368	03/12/2019	SHOULDER INNOVATIONS, INC.
STEM FOR USE IN JOINT ARTHROPLASTY	10,143,559	15/202,364	07/05/2016	SHOULDER INNOVATIONS, INC.
TRI-FLANGE HUMERAL PROSTHESIS	<i>Pending</i>	17/652,046	02/22/2022	SHOULDER INNOVATIONS, INC.

Title	Pat. No.	App. No.	Filing Date	Record Owner
METHODS FOR LESS INVASIVE GLENOID REPLACEMENT	8,038,719	13/018,341	01/31/2011	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	<i>Pending</i>	17/027,493	09/21/2020	SHOULDER INNOVATIONS, INC.
ALIGNMENT GUIDE FOR HUMERAL OR FEMORAL STEM REPLACEMENT PROSTHESIS	<i>Pending</i>	16/701,118	12/02/2019	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	11,696,772	18/058,150	11/22/2022	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	<i>Pending</i>	18/058,165	11/22/2022	SHOULDER INNOVATIONS, INC.
METHODS AND DEVICES FOR LESS INVASIVE GLENOID REPLACEMENT	<i>Pending</i>	18/058,214	11/22/2022	SHOULDER INNOVATIONS, INC.
TOTAL SHOULDER PROSTHESIS HAVING INSET GLENOID IMPLANT CONVERTIBLE FROM ANATOMIC TO REVERSE	<i>Pending</i>	17/379,894	07/19/2021	SHOULDER INNOVATIONS, INC.
GLENOID IMPLANT HAVING MULTIPLE SECTIONS OF DIFFERING DIAMETERS	<i>Pending</i>	17/652,004	02/22/2022	SHOULDER INNOVATIONS, INC.
METHODS FOR LESS INVASIVE GLENOID REPLACEMENT	<i>Pending</i>	18/349,805	07/10/2023	SHOULDER INNOVATIONS, INC.

EXHIBIT C

TRADEMARKS

None.

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EXHIBIT D

MASK WORKS

None.

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RECORDED: 08/08/2023

PATENT
REEL: 064528 FRAME: 0631