

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5285985

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	PATENT SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
TECHULON, INC.	08/14/2018
RECEIVING PARTY DATA	
Name:	PATRICIA A. CALDWELL, ADMINISTRATIVE AGENT FOR SECURED PARTIES
Street Address:	419 E. 57TH STREET 10A
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10022
PROPERTY NUMBERS Total: 5	
Property Type	Number
Patent Number:	9909123
Patent Number:	9777274
Application Number:	15860843
Application Number:	62580093
Application Number:	62677387
CORRESPONDENCE DATA	
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ATTORNEY DOCKET NUMBER:	3344.0030001/RWE
NAME OF SUBMITTER:	ROBERT W. ESMOND
SIGNATURE:	/Robert W. Esmond, #32,893/
DATE SIGNED:	12/17/2018
Total Attachments: 5	
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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT, dated as of August 14, 2018, is made by Techulon, Inc., a Virginia corporation (the "*Grantor*"), in favor of Patricia A. Caldwell, as administrative agent (in such capacity, together with her successors and permitted assigns, the "*Administrative Agent*") for herself and the other Lenders (as defined in the Credit Agreement referred to below) who are referred to as the "*Secured Parties*" hereunder.

WITNESSETH:

WHEREAS, pursuant to the Line of Credit and Security Agreement, dated as of August 14, 2018 (as the same may be amended, restated, supplemented and/or modified from time to time, the "*Credit Agreement*"), by and among the Grantor and the Lender parties thereto (who are referred to herein as the "*Secured Parties*"), the Secured Parties have agreed to make extensions of credit to the Grantor upon the terms and subject to the conditions set forth therein; and

WHEREAS, pursuant to the terms of the Credit Agreement, the Grantor has agreed to grant to the Secured Parties a first priority lien in the all of its assets to secure the "*Obligations*" (as defined in the Credit Agreement), including without limitation, its patents and patent applications; and

WHEREAS, the Grantor and the Administrative Agent, on behalf of the Secured Parties, wish to enter into this Agreement to further evidence grant such security interest in the patents and patent applications.

NOW, THEREFORE, in consideration of the premises the loans made and to be made by Secured Parties under the Credit Agreement, the Grantor hereby agrees with Administrative Agent as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Credit Agreement.

Section 2. Grant of Security Interest in Patent Collateral. The Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations of the Grantor, hereby mortgages, pledges and hypothecates to Administrative Agent for the benefit of the Secured Parties, and grants to Administrative Agent for the benefit of the Secured Parties a lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of the Grantor (the "*Patent Collateral*"):

(a) all of its Patents and Patent Applications, including, without limitation, those referred to on Schedule I hereto;

(b) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing; and

(c) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to

sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.

Section 3. Credit Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to Administrative Agent pursuant to the Credit Agreement and the Grantor hereby acknowledges and agrees that the rights and remedies of Secured Parties with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Credit Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 4. Grantor Remains Liable. The Grantor hereby agrees that, anything herein to the contrary notwithstanding, the Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with its Patents Patent Applications subject to a security interest hereunder.

Section 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts and by different parties in separate 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. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

Section 6. Governing Law. This Patent Security Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the Commonwealth of Virginia.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Techulon, Inc.

By: *Bud Thompson*

Name: Bud Thompson

Title: President & Chief Executive Officer

ACCEPTED AND AGREED
as of the date first above written:

Patricia A. Caldwell,
as Administrative Agent:

Signed: *Patricia A Caldwell*

[SIGNATURE PAGE TO PATENT SECURITY AGREEMENT]

PATENT
REEL: 047929 FRAME: 0455

SCHEDULE I
TO
PATENT SECURITY AGREEMENT

Patent Registrations and Applications

1. REGISTERED PATENTS

<u>Patent Description</u>	<u>Country</u>	<u>Patent Number</u>	<u>Registration Date</u>
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	United States	9,909,123	3/6/2018
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Singapore	11201507141S	5/18/2018
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	United States	9,777,274	10/3/2017
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Singapore	11201507142Q	1/3/2018

2. PATENT APPLICATIONS

<u>Patent Description</u>	<u>Country</u>	<u>Application Number</u>	<u>Filing Date</u>
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	United States	15/860,843	1/3/2018
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Canada	2,906,663	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	EPC	14764378.7	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Israel	241226	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	India	3052/KOLNP /2015	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Japan	2016-502912	3/14/2014

<u>Patent Description</u>	<u>Country</u>	<u>Application Number</u>	<u>Filing Date</u>
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Republic of Korea	10-2015-7028890	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Canada	2,904,440	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	EPC	14762223.7	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Japan	2016-502925	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Republic of Korea	10-2015-7028885	3/14/2014
ANTISENSE MOLECULES FOR TREATMENT OF STAPHYLOCOCCUS AUREUS INFECTION	Singapore	10201710369R	3/14/2014
PEPTIDE NUCLEIC ACID MOLECULES FOR TREATMENT OF GRAM POSITIVE BACTERIAL INFECTION	United States	62/580,093	11/01/2017
ANTISENSE OLIGONUCLEOTIDES FOR THE TREATING OF P. AERUGINOSA, A.BAUMANNII AND K. PNEUMONIAE INFECTIONS	United States	62/677,387	5/29/2018