

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5979259

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
REDHILL BIOPHARMA INC.	02/23/2020

RECEIVING PARTY DATA

Name:	HCR COLLATERAL MANAGEMENT, LLC, AS ADMINISTRATIVE AGENT
Street Address:	300 ATLANTIC STREET
Internal Address:	SUITE 600
City:	STAMFORD
State/Country:	CONNECTICUT
Postal Code:	06901

PROPERTY NUMBERS Total: 19

Property Type	Number
Application Number:	13451111
Application Number:	11571044
Application Number:	13592088
Application Number:	16289748
Application Number:	13616582
Patent Number:	7662365
Patent Number:	8349307
Patent Number:	8617530
Patent Number:	7056500
Patent Number:	8067431
Patent Number:	8034825
Patent Number:	9388104
Patent Number:	7786133
Patent Number:	9149539
Patent Number:	9012469
Application Number:	11332964
Application Number:	96000059
Application Number:	15178465
Application Number:	11015196

PATENT

CORRESPONDENCE DATA**Fax Number:** (858)550-6420*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:** 858-550-6472**Email:** dmontebianco@cooley.com**Correspondent Name:** DEREK MONTEBLANCO**Address Line 1:** C/O COOLEY LLP**Address Line 2:** 4401 EASTGATE MALL**Address Line 4:** SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	322762-105
NAME OF SUBMITTER:	DEREK MONTEBLANCO
SIGNATURE:	/DEREK MONTEBLANCO/
DATE SIGNED:	02/24/2020

Total Attachments: 7

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NOTICE
OF
GRANT OF SECURITY INTEREST
IN
PATENTS

United States Patent and Trademark Office

Ladies and Gentlemen:

Please be advised that pursuant to the Security Agreement dated as of February 23, 2020 (as the same may be amended, modified, restated or supplemented from time to time, the "Security Agreement") by and among the Grantors party thereto (each a "Grantor" and collectively, the "Grantors") and HCR Collateral Management, LLC, as Administrative Agent (the "Administrative Agent") for the Secured Parties referenced therein, the undersigned Grantor has granted a continuing security interest in and continuing lien upon, the patents, patent licenses and patent applications set forth on Schedule 1 attached hereto to the Administrative Agent for the ratable benefit of the Secured Parties.

The undersigned Grantor and the Administrative Agent, on behalf of the Secured Parties, hereby acknowledge and agree that the security interest in the patents, patent licenses and patent applications set forth on Schedule 1 attached hereto granted by the Grantor to the Administrative Agent, on behalf of the Secured Parties, pursuant to the Security Agreement (i) may only be terminated in accordance with the terms of the Security Agreement, (ii) is not to be construed as an assignment of any patent, patent license or patent application and (iii) is subject to the terms and limitations of the Security Agreement.

[Signature pages follow]

Very truly yours,

REDHILL BIOPHARMA INC.

By: Dror Ben Asher

Name:

Title: CEO

DBA

Acknowledged and Accepted:

HCR COLLATERAL MANAGEMENT, LLC,
as Administrative Agent

By: _____

Name:

Title:

[Signature page to Notice of Grant of Security Interest in Patents (Borrower)]

Very truly yours,

REDHILL BIOPHARMA INC.

By: 

Name: *R. J. Schuss*

Title: *Chief Commercial Officer*

Acknowledged and Accepted:

HCR COLLATERAL MANAGEMENT, LLC,
as Administrative Agent

By: _____

Name:

Title:

[Signature page to Notice of Grant of Security Interest in Patents (Borrower)]

PATENT
REEL: 051909 FRAME: 0464

Very truly yours,

REDHILL BIOPHARMA INC.

By:
Name:
Title:

Acknowledged and Accepted:

HCR COLLATERAL MANAGEMENT, LLC,
as Administrative Agent

By:
Name: Clarke B. Futch
Title: Managing Partner

[Signature page to Notice of Grant of Security Interest in Patents (Borrower)]

PATENT
REEL: 051909 FRAME: 0465

Schedule 1

[See attached]

Schedule 1

FAMILY	TITLE	COUNTRY	APP. DATE	APP. NO	GRANT DATE	GRANT NO.	EXPIRATION YEAR
AEMCOLO	ORAL ANTIMICROBIAL PHARMACEUTICAL COMPOSITIONS	USA	19-Apr-12	13/451,111	9-Nov-12	8,263,120	2025
		USA	3-May-05	11/571,044	16-Jul-13	8,486,446	2025
		USA	22-Aug-12	13/592,088	3-Jun-14	8,741,948	2025
		USA	3-May-05	16/289,748	1-Mar-19		2025
		USA	14-Sep-12	13/616,582	10-Sep-13	8,529,945	2025

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LIST OF LICENSED PATENTS FROM ASTRAZENECA RELATED TO MOVANTIK AND LICENSED BY INC.							
Family Number	Chy	Type	Filing Date	Filing Number	Grant Number	Grant Date	Expiry
103858-US-CNT	US	CNT	17 Jan 2006	11/332964	7662365	16 Feb 2010	18 Oct 2022
103858-US-CNT[2]	US	CNT2	06 Oct 2009	12/574335	8349307	08 Jan 2013	28 Apr 2023
103858-US-CNT[3]	US	CNT3	29 Nov 2012	13/689640	8617530	31 Dec 2013	18 Oct 2022
103858-US-EXT	US	EXT	12 Nov 2014	11/332964			
103858-US-NP	US	NP	18 Oct 2002	10/274296	7056500	06 Jun 2006	29 Jun 2024
103858-US-REX	US	REX	01 Apr 2014	96/000059	7056500	11 May 2015	18 Oct 2022
103865-US-CNT	US	CNT	22 Feb 2010	12/710167	8067431	29 Nov 2011	28 Feb 2025
103865-US-CNT[2]	US	CNT2	24 Jun 2010	12/822935	8034825	11 Oct 2011	16 Dec 2024
103865-US-CNT[4]	US	CNT4	08 Apr 2014	14/248245	9388104	12 Jul 2016	16 Dec 2024
103865-US-CNT[5]	US	CNT5	09 Jun 2016	15/178465			16 Dec 2024
103865-US-EXT	US	EXT	12 Nov 2014	11/015196			
103865-US-NP	US	NP	16 Dec 2004	11/015196	7786133	31 Aug 2010	19 Dec 2027
104068-US-CNT	US	CNT	11 Mar 2015	14/645347	9149539	06 Oct 2015	29 Sep 2031
104068-US-PCT	US	PCT	29 Sep 2011	13/823953	9012469	21 Apr 2015	02 Apr 2032

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REEL: 051909 FRAME: 0468

RECORDED: 02/24/2020