505954599 03/06/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6001304

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AXEL NIEMEYER	10/22/2019
HANNAH SCHMOLKE	12/10/2019
GUENTER BRUCKMANN	10/23/2019
URSULA AMBERG	10/30/2019
GUENTER SCHOLZ	10/29/2019
RENE WIRT	11/03/2019

RECEIVING PARTY DATA

Name:	BOEHRINGER INGELHEIM VETMEDICA GMBH	
Street Address:	BINGER STRASSE 173	
City:	INGELHEIM AM RHEIN	
State/Country:	GERMANY	
Postal Code:	55216	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16585864

CORRESPONDENCE DATA

Fax Number: (703)848-2981

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: (703)584-3270

pmahan@rcsc-ip.com, docketing@rcsc-ip.com Email: ROBERTS CALDERON SAFRAN & COLE, P.C. **Correspondent Name:**

7918 JONES BRANCH DRIVE Address Line 1:

Address Line 2: SUITE 500

Address Line 4: MCLEAN, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	740126-375
NAME OF SUBMITTER:	DAVID S. SAFRAN
SIGNATURE:	/DAVID S. SAFRAN/
DATE SIGNED:	03/06/2020

PATENT REEL: 052039 FRAME: 0543 505954599

Total Attachments: 14 source=Executed_Assignment_Dkt_740126-375#page1.tif source=Executed_Assignment_Dkt_740126-375#page2.tif source=Executed_Assignment_Dkt_740126-375#page3.tif source=Executed_Assignment_Dkt_740126-375#page4.tif source=Executed_Assignment_Dkt_740126-375#page5.tif source=Executed_Assignment_Dkt_740126-375#page6.tif source=Executed_Assignment_Dkt_740126-375#page7.tif source=Executed_Assignment_Dkt_740126-375#page8.tif source=Executed_Assignment_Dkt_740126-375#page9.tif source=Executed_Assignment_Dkt_740126-375#page10.tif source=Executed_Assignment_Dkt_740126-375#page11.tif source=Executed_Assignment_Dkt_740126-375#page12.tif source=Executed_Assignment_Dkt_740126-375#page13.tif source=Executed_Assignment_Dkt_740126-375#page13.tif source=Executed_Assignment_Dkt_740126-375#page13.tif

PATENT REEL: 052039 FRAME: 0544 BI-Employee-ROW-WW-Assignment U.S. Serial No. 16/585864

Date of Filing September 27, 2019

Attorney Docket No. 01-3318-US-1

CONFIRMATION OF ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and further pursuant to applicable law, the entire right, title, and interest of the undersigned inventor has been previously transferred, sold, and assigned, and to the extent the inventor has not previously transferred, sold, and assigned hereby transfers, sells, and assigns unto:

Boehringer Ingelheim Veterinary Research Center GmbH & Co. KG

Bemeroder Str. 31

30559 Hannover

Germany

and its successors (hereinafter "Assignee"), his/her entire right, title, and interest for the United States and the Territories and Possessions thereof and all foreign countries and regions, in and to the inventions and designs (if any) (hereinafter collectively referred to as the "Inventions") as set forth and described in the following United States patent application(s): Application No. 16/585864; filed September 27, 2019 (hereinafter referred to as the "Application"), including all rights to provisionals, nonprovisionals, divisionals, continuations, continuations-in-part, Patent Cooperation Treaty (PCT) applications, and national stages of any such PCT applications, and all other foreign patent applications based in whole or in part upon the Inventions or upon the Application, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted in any country for the Inventions or upon the Application or any patent application claiming priority rights from the Application, and every priority right that is or may be predicated upon or arise from the Inventions, or from the Application, and including all rights to sue for any infringement of the Letters Patent, and further including all rights to past damages relating to third party infringement of the Letters Patent, the Assignee being hereby authorized to file and prosecute patent applications, including completing formalities and recordation of ownership claims, in any or all countries and regions on any or all of the Inventions in the name of the undersigned or in the name of the Assignee or otherwise as the Assignee may deem advisable, under the PCT or otherwise; the United States Patent and Trademark Office and corresponding patent granting authorities outside the United States being hereby authorized to issue or transfer all the Letters Patent issuing from any patent applications claiming the Inventions or claiming priority from the Application to the Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to ensure that the Inventions, the Application, and any Letters Patent which may issue from any patent applications claiming the

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NAME AND SIGNATURE OF INVENTOR

Name: Axel NIEMEYER

Signature:

Date: 10.22.2019

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE (Employer)

Ingelheim am Rhein, DE, on COLORY CO,

Boehringer Ingelheim Veterinary Research Center GmbH & Co. KG

ppa.

i.V.

Dr. Holger SEITZ

Dr. Ulrike TEICHMANN

Minte (eil

Authorized Signatories

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30559 Hannover

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NAME AND SIGNATURE OF INVENTOR

Name: Hannah SCHMOLKE

signature: Haunul Chilliple Date: December 10, 2019

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE (Employer)

Ingelheim am Rhein, DE, on

Boehringer Ingelheim Veterinary Research Center GmbH & Co. KG

ppa.

i. V.

Dr. Holger SEITZ

Dr. Ulrike TEICHMANN

Authorized Signatories

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Date of Filing September 27, 2019

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Boehringer Ingelheim Vetmedica GmbH Binger Strasse 173, 55216 Ingelheim am Rhein GERMANY

and its successors (hereinafter "Assignee"), his/her entire right, title, and interest for the United States and the Territories and Possessions thereof and all foreign countries and regions, in and to the inventions and designs (if any) (hereinafter collectively referred to as the "Inventions") as set forth and described in the following United States patent application(s): Application No. 16/585864; filed September 27, 2019 (hereinafter referred to as the "Application"), including all rights to provisionals, nonprovisionals, divisionals, continuations, continuations-in-part, Patent Cooperation Treaty (PCT) applications, and national stages of any such PCT applications, and all other foreign patent applications based in whole or in part upon the Inventions or upon the Application, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted in any country for the Inventions or upon the Application or any patent application claiming priority rights from the Application, and every priority right that is or may be predicated upon or arise from the Inventions, or from the Application, and including all rights to sue for any infringement of the Letters Patent, and further including all rights to past damages relating to third party infringement of the Letters Patent, the Assignee being hereby authorized to file and prosecute patent applications, including completing formalities and recordation of ownership claims, in any or all countries and regions on any or all of the inventions in the name of the undersigned or in the name of the Assignee or otherwise as the Assignee may deem advisable, under the PCT or otherwise; the United States Patent and Trademark Office and corresponding patent granting authorities outside the United States being hereby authorized to issue or transfer all the Letters Patent issuing from any patent applications claiming the Inventions or claiming priority from the Application to the Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to ensure that the Inventions, the Application, and any Letters Patent which may issue from any patent applications claiming the

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NAME AND SIGNATURE OF INVENTOR

Name: GuenterBRUCKMANN

Signature: Gentle Boundon Date: October 23, 2019

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE (Employer)

Ingelheim am Rhein, DE, on 1000 20, 2020

Boehringer Ingelheim Vetmedica GmbH

ppa.

ppa. i.V.

Dr. Holger SEITZ

Christiane GRUEN Dr. Michael 9027WICH

Authorized Signatories

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55216 Ingelheim am Rhein
GERMANY

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NAME AND SIGNATURE OF INVENTOR

Name: Ursula AMBERG

Signature: //xi./k

Date: *October 30, 2019*

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE (Employer)

Ingelheim am Rhein, DE, on

Boehringer Ingelheim Vetmedica GmbH

ppa.

ppa, i.V.

Dr. Holger SEITZ

Christiane GRUEN- Dr. Lichael POETWICH

Authorized Signatories

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55216 Ingelheim am Rhein
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NAME AND SIGNATURE OF INVENTOR

Name: Guenter SCHOLZ

Ingelheim am Rhein, DE, on January 20, 2020

Boehringer Ingelheim Vetmedica GmbH

ppa.i.V.

Christiane GRUEN Dr. Michael PORTWICH

Authorized Signatories

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NAME AND SIGNATURE OF INVENTOR

Name: Rene WIRT

Date: ALVERGAT OF 21.49

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE (Employer)

Ingelheim am Rhein, DE, on 1000 20, 200

Boehringer Ingelheim Vetmedica GmbH

ppa.

ppa i.V.

istiane GRUEN Dr. Michael PORTWICH

BI-Employer to BII WWAssignment U.S. Serial No. 16/585864 Date of Filing: September 27, 2019

Attorney Docket No. 01-3318-US-1

CONFIRMATION OF ASSIGNMENT / ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and further pursuant to one or more intercompany agreements, Boehringer Ingelheim Veterinary Research Center GmbH & Co. KG, with its principal place of business at Bemeroder Str. 31, 30559 Hannover, Germany ("Assignor") has previously transferred, sold, and assigned, and to the extent Assignor has not previously transferred, sold, and assigned hereby transfers, sells, and assigns, unto Boehringer Ingelheim Vetmedica GmbH, a German corporation with its principal place of business at Binger Strasse 173, 55216 Ingelheim am Rhein, Germany, ("Assignee"), its entire right, title, and interest, for the United States and the Territories and Possessions thereof and all foreign countries and regions, in and to the inventions and designs (if any) (hereinafter collectively referred to as the "Inventions") as set forth and described in the following United States patent application(s): Application No. 16/585864; filed September 27, 2019 (hereinafter referred to as the "Application"), including all rights to provisionals, nonprovisionals, divisionals, continuations, continuations-in-part, Patent Cooperation Treaty (PCT) applications, and national stages of any such PCT applications, and all other foreign patent applications based in whole or in part upon the inventions or upon the Application, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted in any country for the Inventions or upon the Application or any patent application claiming priority rights from the Application, and every priority right that is or may be predicated upon or arise from the Inventions, or from the Application, and including all rights to sue for any infringement of the Letters Patent, and further including all rights to past damages relating to third party infringement of the Letters Patent, the Assignee being hereby authorized to file and prosecute patent applications, including completing formalities and recordation of ownership claims, in any or all countries and regions on any or all of the Inventions in the name of the undersigned or in the name of the Assignee or otherwise as the Assignee may deem advisable, under the PCT or otherwise; the United States Patent and Trademark Office and corresponding patent granting authorities outside the United States being hereby authorized to issue or transfer all the Letters Patent issuing from any patent applications claiming the Inventions or claiming priority from the Application to the Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to ensure that the Inventions, the Application, and any Letters Patent which may issue from any patent applications claiming the Inventions or claiming priority from the Application shall be held and enjoyed by the Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to the Assignee all lawful documents including petitions, specifications, oaths, assignments, Invention disclaimers, declarations,

BI-Employer to BII WWAssignment U.S. Serial No. 16/585864

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and lawful affidavits in form and substance which may be requested by the Assignee, to furnish the Assignee with all facts relating to the Inventions and/or the Application or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may embody the Inventions or relate to the Application, and generally do everything possible to aid the Assignee, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection, in all countries and regions, for the Inventions, the Application, and/or Letters Patent that may issue as a result of the Application and from any patent applications claiming priority to the Application, and not to take any action challenging or opposing, on any grounds whatsoever, Assignee's rights granted under this Agreement, or the validity of the transfer of the ownership rights hereunder. For the avoidance of doubt, nothing in this assignment requires the Assignor to provide testimony in a United States litigation related to the above mentioned inventions, Application, and/or Letters Patent.

The undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office and/or corresponding patent granting authorities outside the United States, and to handle all correspondence relating to the Application or any patent applications claiming priority from the Application.

NAME AND SIGNATURE OF THE AUTHORIZED OFFICER OF ASSIGNOR (Employer)

Ingelheim am Rhein DE on

Boehringer Ingelheim Veterinary Research Center GmbH & Co. KG

ppa.

Dr./Holger SEITZ

Dr. Ulrike TEICHMANN

Authorized Signatories

NAME AND SIGNATURE OF THE AUTHORIZED OFFICERS OF ASSIGNEE

Ingelheim am Rhein, DE, on January

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Boehringer Ingelheim Vetmedica GmbH

ingement verneates official

ppa: i.V.

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Christiane GRUEN Dr. Midrael 'HORTWI

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Authorized Signatories

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