PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:			NEW ASSIGNMENT				
NATURE OF CONVEYANCE:			ASSIGNMENT				
CONVEYING PARTY DATA							
Ν			ime	Execution Date			
Kevin A. O'Connell				12/14/2012			
Rangappa Narayana Ramachandra				12/14/2012			
Terri L. Wasmoen				12/14/2012			
RECEIVING PARTY DATA							
Name:	Intervet Inc.						
Street Address:	556 Morris Av	venue					
City:	Summit						
State/Country:	NEW JERSE	Y					
Postal Code:	07901						
PROPERTY NUMBER	S Total: 1						
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Property Ty	уре		Number				
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Date:

Total Attachments: 6

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WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

(1) Kevin A. O'Connell, located at Omaha, Nebraska, U.S.A.,

(2) Rangappa Narayana Ramachandra, located at Sinking Spring, Pennsylvania, U.S.A.,

(3) Terri L. Wasmoen located at Omaha, Nebraska, U.S.A.,

(hereinafter ASSIGNOR(S)), am/are the inventor(s) of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

VACCINE AGAINST EHRLICHIA CANIS

and/or in the following application(s):

EP Application No. 10178177.1 filed on September 22, 2010;

U.S. Provisional Application No. 61/360,969 having a filing date of July 2, 2010;

PCT International Application No. PCT/US2011/042323 having a filing date of July 2, 2010; and

U.S. Application No. 13/805,490 having a filing date of December 19, 2012.

WHEREAS I/WE covenant that the rights and property herein conveyed are free and clear of any encumbrance, and that I/we have the full right to convey the same as herein expressed.

WHEREAS, **INTERVET INC.**, a corporation organized under the laws of Delaware, having its principal office at 556 Morris Avenue, Summit, New Jersey 07901, with respect to the United States of America, and **INTERVET INTERNATIONAL B.V.**, a corporation organized under the laws of the Netherlands, having its principal office at Wim de Körverstraat 35, 5831 AN, Boxmeer, Netherlands, with respect to all other countries of the world (hereinafter, each an **ASSIGNEE** with respect to the identified country(ies)), are desirous of obtaining the entire right, title and interest in, to and under the invention disclosed in said application;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I/we, said ASSIGNOR(S), do each hereby sell, assign and transfer or confirm the grant and assignment to said ASSIGNEE my/our entire right, title and interest in all countries of the world in and to my/our invention described in said application for Patents, in and to the right to file patent applications in the name of ASSIGNEE, its designee, or in any or all of our names, at its election, on the aforesaid invention in all countries of the world, together with all rights of priority in the aforesaid countries deriving from the above-identified application for Patents under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models and under any other international arrangement relating to patents or intellectual property, in and to any and all Letters Patent that are granted from the aforesaid application for Patents, in and to any applications claiming priority benefits to a provisional patent application or other applications filed on said invention, and in and to any continuations, divisions, reissues, renewals and extensions thereof of any of said Letters Patent, the same to be held and enjoyed by said **ASSIGNEE**, to the full ends of the terms for which all Letters Patent therefore may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this assignment and sale had not been made.

AND I/WE HEREBY covenant and agree that we will at any time, upon the request and at the expense of **ASSIGNEE**, without further compensation or charge to said **ASSIGNEE**, execute and deliver any and all documents that may be necessary or desirable to perfect the title to the foregoing invention, patent applications, and Letters Patent and continuations, divisions, reissues, renewals and extensions thereof in the name of **ASSIGNEE**, including the execution and procurement of any and all further documents evidencing this assignment and sale as may be necessary or desirable for recording the same in the Patent Office of any country concerned, and will make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for alding therein.

I/WE HEREBY authorize **ASSIGNEE** to insert in this instrument the Application Number(s) and the filing date(s) of said application for Patents when officially notified thereof.

This document may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such components shall together constitute but one and the same document.

PATENT REEL: 030761 FRAME: 0641

Executed this 14 day of Decembere, 2012.

) s.s.:

0 Kevin A. O'CONNELL

ACKNOWLEDGEMENT

State of NEBRASKA

County of DOUGLAS

On this <u>14</u> day of <u>December</u>, 2012, personally appeared before me <u>Kevin A. O'Connell</u> to me known, and known by me to be the same person(s) described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal) GENERAL NOTARY - State of Nebraska GAIL BOSCHULT My Comm. Exp. June 28, 2014	Notary Public
Executed this day of , 20	
Rangappa Narayana RAMACHANDRA ACKNOWLEDGEMENT	
State of PENNSYLVANIA)) s.s.: County of BERKS)	
On this day of Ramachandra to me known, and known by me to be instrument, and acknowledged that he (she) execute (Seal)	, 2012, personally appeared before me <u>Rangappa Narayana</u> e the same person described in and who executed the foregoing ad the same, of his (her) own free will for the purpose set forth.
-	Notary Public

PATENT REEL: 030761 FRAME: 0642 Worldwide Assignment

Attorney Docket No. 2010.023

Executed this <u>14</u> day of <u>Dec</u>, 2012.

Terri L. WASMOEN

ACKNOWLEDGEMENT

State of NEBRASKA

County of DOUGLAS

) s.s.:

On this 14 day of 12 cmbar, 2012, personally appeared before me <u>Terri L. Wasmoen</u> to me known, and known by me to be the same person(s) described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal) **GENERAL NOTARY - State of Nebraska** GAIL BOSCHULT My Comm. Exp. June 28, 2014 Notary Public

PATENT REEL: 030761 FRAME: 0643

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

(1) Kevin A. O'Connell, located at Omaha, Nebraska, U.S.A.,

(2) Rangappa Narayana Ramachandra, located at Sinking Spring, Pennsylvania, U.S.A.,

(3) Terri L. Wasmoen located at Omaha, Nebraska, U.S.A.,

(hereinafter ASSIGNOR(S)), am/are the inventor(s) of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

VACCINE AGAINST EHRLICHIA CANIS

and/or in the following application(s):

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PCT International Application No. PCT/US2011/042323 having a filing date of July 2, 2010; and

U.S. Application No. 13/805,490 having a filing date of December 19, 2012.

WHEREAS I/WE covenant that the rights and property herein conveyed are free and clear of any encumbrance, and that I/we have the full right to convey the same as herein expressed.

WHEREAS, **INTERVET INC.**, a corporation organized under the laws of Delaware, having its principal office at 556 Morris Avenue, Summit, New Jersey 07901, with respect to the United States of America, and **INTERVET INTERNATIONAL B.V.**, a corporation organized under the laws of the Netherlands, having its principal office at Wim de Körverstraat 35, 5831 AN, Boxmeer, Netherlands, with respect to all other countries of the world (hereinafter, each an **ASSIGNEE** with respect to the identified country(ies)), are desirous of obtaining the entire right, title and interest in, to and under the invention disclosed in said application;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I/we, said ASSIGNOR(S), do each hereby sell, assign and transfer or confirm the grant and assignment to said ASSIGNEE my/our entire right, title and interest in all countries of the world in and to my/our invention described in said application for Patents, in and to the right to file patent applications in the name of ASSIGNEE, its designee, or in any or all of our names, at its election, on the aforesaid invention in all countries of the world, together with all rights of priority in the aforesaid countries deriving from the above-identified application for Patents under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models and under any other international arrangement relating to patents or intellectual property, in and to any and all Letters Patent that are granted from the aforesaid application for Patents, in and to any applications claiming priority benefits to a provisional patent application or other applications filed on said invention, and in and to any continuations, divisions, reissues, renewals and extensions thereof of any of said Letters Patent, the same to be held and enjoyed by said ASSIGNEE, to the full ends of the terms for which all Letters Patent therefore may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this assignment and sale had not been made.

AND I/WE HEREBY covenant and agree that we will at any time, upon the request and at the expense of **ASSIGNEE**, without further compensation or charge to said **ASSIGNEE**, execute and deliver any and all documents that may be necessary or desirable to perfect the title to the foregoing invention, patent applications, and Letters Patent and continuations, divisions, reissues, renewals and extensions thereof in the name of **ASSIGNEE**, including the execution and procurement of any and all further documents evidencing this assignment and sale as may be necessary or desirable for recording the same in the Patent Office of any country concerned, and will make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein.

I/WE HEREBY authorize **ASSIGNEE** to insert in this instrument the Application Number(s) and the filing date(s) of said application for Patents when officially notified thereof.

This document may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such components shall together constitute but one and the same document.

PATENT REEL: 030761 FRAME: 0644

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Worldwide Assignment	Attorney Docket No. 2010.023	
Executed this day of , 20		
ACKNOWLEDGEMENT		
State of NEBRASKA)) s.s.: County of DOUGLAS)		י איז ייאר איני ויי
On this day of known, and known by me to be the same person(s) acknowledged that he (she) executed the same, of	, 2012, personally appeared before me <u>Kevin A. O'Connell</u> to me described in and who executed the foregoing instrument, and his (her) own free will for the purpose set forth.	. '
(Seal)		•,• •
	Notary Public	
Executed this 14th day of December, 201	3,	
	1	
P. N. Blaunkandy		
Rangappa Narayana RAMACHANDRA		
ACKNOWLEDGEMENT		•
State of PENNSYLVANIA)) s.s.:		
County of BERKS		e.
On this <u>14</u> th day of <u>December</u> <u>Ramachandra</u> to me known, and known by me to b instrument, and acknowledged that he (she) execute	_ , 2012, personally appeared before me <u>Rangappa Naravana</u> be the same person described in and who executed the foregoing ed the same, of his (her) own free will for the purpose set forth.	·
(Seal)		
COMMONWEALTH OF PENNSYLVANIA	Notary Public	
Notarial Seal Jill L. Prince, Notary Public		
West Cocalico Twp., Lancaster County My Commission Expires Oct. 22, 2016		•
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES		е 1 1

PATENT REEL: 030761 FRAME: 0645

Executed this _____ day of _____, 20_____

) s.s.:

Terri L. WASMOEN

ACKNOWLEDGEMENT

State of NEBRASKA

County of DOUGLAS

On this _____ day of _____, 2012, personally appeared before me <u>Terri L. Wasmoen</u> to me known, and known by me to be the same person(s) described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

PATENT REEL: 030761 FRAME: 0646

RECORDED: 07/09/2013