

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
LUIS SOLANS	06/09/2017
CAMILLE LOCHT	06/09/2017
ANNE TSICOPOULOS	06/09/2017
SALIHA AIT-YAHIA SENDID	06/09/2017
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15472436
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	7056-0074

<b>NAME OF SUBMITTER:</b>	STANLEY A. KIM
<b>SIGNATURE:</b>	/STANLEY A. KIM/
<b>DATE SIGNED:</b>	06/09/2017
<b>Total Attachments: 2</b> source=7056-0074_ExecAssignment#page1.tif source=7056-0074_ExecAssignment#page2.tif	

ASSIGNMENT

WHEREAS, we, Luis Solans, Camille Locht, Anne Tsicopoulos, and Saliha Ait-Yahia Sendid (hereinafter collectively referred to as "ASSIGNOR") have invented certain new and useful improvements for "MUTANT BORDETELLA STRAINS AND METHODS OF USE," for which we have on March 29, 2017 under Application Serial No. 15/472,436, executed an application for Letters Patent of the United States, and

WHEREAS, Institut Pasteur de Lille, a French legal entity, 1 rue du Professeur A. Calmette, BP 245, 59019 Lille Cedex, France and Institut National de la Santé et de la Recherche Médicale (INSERM), a French legal entity, 101 Rue de Tolbiac, 75654 Paris Cedex 18, France and (hereinafter collectively referred to as "ASSIGNEE"), are desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to said application, and in, to and under any and all Patents which may be granted on or as a result thereof:

NOW, THEREFORE, for and in consideration of One Dollar (\$1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, the ASSIGNOR does hereby sell and assign to the ASSIGNEE, its successors and assigns, the ASSIGNOR'S entire right, title and interest in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations and extensions thereof; and the ASSIGNOR hereby authorizes and requests the Commissioner of Patents to issue all patents for said invention, or patents resulting therefrom, insofar as the ASSIGNOR'S interest is concerned, to the ASSIGNEE.

The ASSIGNOR also hereby sells and assigns to the ASSIGNEE, the ASSIGNEE'S successors and assigns, the ASSIGNOR'S foreign rights to the invention disclosed in said application, in all patent-granting countries of the world, including the right to file applications and obtain patents for said invention in the ASSIGNEE'S own name in said countries and including all rights of priority in said countries under the terms of the International Convention for the Protection of Industrial Property, and the ASSIGNOR further agrees to execute any and all patent applications,

assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

The ASSIGNOR also hereby agrees, at the request and expense of the ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said ASSIGNEE, the ASSIGNEE'S successors and assigns, to obtain and enforce proper patent protection for said invention in all countries.

The ASSIGNOR also hereby grants Stanley A. Kim, Reg. No. 42,730, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

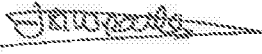
Date: 9<sup>th</sup> June 2017

  
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LUIS SOLANS

Date: 5<sup>th</sup> June 2017

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CAMILLE LOCHT

Date: 8<sup>th</sup> June 2017

  
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ANNE TSICOPOULOS

Date: 03<sup>rd</sup> June 2017

  
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SALIHA ATT-YAHIA WENDID