

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4509839

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BEN VAN SCHAIJK	01/16/2014
IVO PLOEMEN	01/14/2014
MARTIJN VOS	01/09/2014
ROBERT SAUERWEIN	01/09/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	STICHTING KATHOLIEKE UNIVERSTEIT
<b>Street Address:</b>	GEERT GROOTEPLEIN ZUID 10
<b>City:</b>	NIJMEGEN
<b>State/Country:</b>	NETHERLANDS
<b>Postal Code:</b>	6525 GA
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14434859
<b>Application Number:</b>	15458849
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)371-2540
<i>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.</i>	
<b>Phone:</b>	(202) 371-2600
<b>Email:</b>	bncombs@skgf.com, mwood@skgf.com
<b>Correspondent Name:</b>	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C
<b>Address Line 1:</b>	1100 NEW YORK AVENUE, N.W.
<b>Address Line 4:</b>	WASHINGTON, D.C. 20005
<b>ATTORNEY DOCKET NUMBER:</b>	2602.0110002 & 0110003
<b>NAME OF SUBMITTER:</b>	BONNIE W. NANNENGA-COMBS
<b>SIGNATURE:</b>	/Bonnie W. Nannenga-Combs #67,836/
<b>DATE SIGNED:</b>	07/19/2017
<b>Total Attachments: 8</b>	
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## ASSIGNMENT

The following parties are participants in, and subject to the project agreement dated 1 January 2008 describing the TI Pharma Project T4-102 (the "Project Agreement"):

Academisch Ziekenhuis Leiden, a Dutch academic institution having its principal place of business at Albinusdreef 2, 2333 ZA Leiden, The Netherlands ("AZL");

Stichting Katholieke Universteit, a Dutch academic institution through its establishment, Radboud University Nijmegen Medical Center, having its principal place of business at Geert Grooteplein Zuid 10, 6525 GA Nijmegen, The Netherlands ("SKU");

Stichting Top Institute Pharma, a Dutch Biomedical Research Foundation having its principal place of business at Galileiweg 8, 2333 BD Leiden, he Netherlands ("TI Pharma"); and

Sanaria, Inc., a U.S. Corporation having its principal place of business at 9800 Medical Center Drive, Suite A209, Rockville, MD 20850, United States of America ("Sanaria");

Each of the parties set out above are hereinafter referred to collectively as the "Parties".

### WHEREAS

- (A) The Parties have entered into the Project Agreement;
- (B) The Parties have filed a priority U.S. provisional patent application on January 25<sup>th</sup> 2013 (also known as United States Application No. 61/ 757,072) and a second U.S. provisional patent application on March 14<sup>th</sup> 2013 (also known as United States Application No. 61/ 783,326) (referred to collectively as the "Applications"), both disclosing the invention(s) known as "*Genetic Attenuation of Plasmodium by b9 Gene Disruption*" (the "Invention"), and resulting from the research activities under the Project Agreement;
- (C) Named Inventors Chris J. Janse, Takeshi Annoura, and Shahid M. Khan were employees of AZL at the time the invention(s) were made;
- (D) Named Inventors Ben Van Schaijk, Ivo Ploemen, Martijn Vos and Robert Sauerwein were employees of SKU at the time the invention(s) were made (Chris J. Janse, Takeshi Annoura, Shahid M. Khan, Ben Van Schaijk, Ivo Ploemen, Martijn Vos and Robert Sauerwein are referred to collectively as the "Inventors");
- (E) By operation of the Dutch Patent Act 1995 (*Rijksoctrooiwet 1995*), the rights of the Inventors to the invention(s) are to be assigned to their respective employers;
- (F) Under a separate Waiver of Rights agreement, TI Pharma has waived and relinquished all rights to and ownership of the Invention;
- (G) By operation of the Project Agreement and the Waiver of Rights by TI Pharma, rights to the invention(s) are to be jointly owned by AZL, SKU, and Sanaria;

NOW THEREFORE IT IS AGREED AS FOLLOWS:

In consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged:

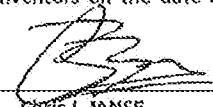
- (1) Chris J. Janse, Takeshi Annoura, and Shahid M. Khan do hereby sell, assign, transfer and set over, their entire right, title and interest in the Invention and Applications and in any and all non-provisional applications therefrom, in any and all Letters Patent(s) granted from such non-provisional applications, and in any and all applications that claim the benefit of the patent application listed above in part (B), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (B), to the full extent of the term or terms for which Letters Patents issue, and in any and all inventions described in the patent application listed above in part (B), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable to AZL; and,
- (2) Ben Van Schaijk, Ivo Ploemen, Martijn Vos and Robert Sauerwein do hereby sell, assign, transfer and set over, their entire right, title and interest in the Invention and Applications and in any and all non-provisional applications therefrom, in any and all Letters Patent(s) granted from such non-provisional applications, and in any and all applications that claim the benefit of the patent application listed above in part (B), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (B), to the full extent of the term or terms for which Letters Patents issue, and in any and all inventions described in the patent application listed above in part (B), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable to SKU;

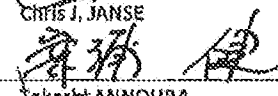
Further, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged:

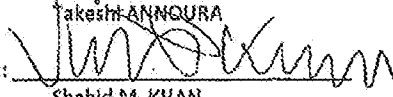
- (3) AZL and SKU individually and collectively do hereby sell, assign, transfer and set over, a partial right, title and interest in the Invention and Applications and in any and all non-provisional applications therefrom, in any and all Letters Patent(s) granted from such non-provisional applications, and in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (B), to the full extent of the term or terms for which Letters Patents issue, and in any and all inventions described in the patent application listed above in part (B), and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable to Sanaria, such that AZL, SKU, and Sanaria (the "ASSIGNEES") are joint owners of all such rights, title and interest in the proportions set out in the Project Agreement and any and all amendments thereto, to be held and enjoyed by the named Assignees, their successors, legal representatives and assigns to the same extent as all such rights, title and interest held and enjoyed by AZL and SKU had this assignment and sale not been made;
- (4) The ASSIGNORS do hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue the patent on an application as aforesaid, to issue the patent for the invention(s) in the names of the ASSIGNEES in accordance with the terms of this agreement;
- (5) The Inventors do hereby covenant that they have full right to convey their entire interest herein assigned and the Inventors have not executed and will not execute any agreement in conflict herewith;
- (6) The Inventors further covenant and agree to communicate to the Assignees any facts know to them respecting the Invention(s) and the Applications, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitute, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid the Assignees to obtain and enforce proper patent protection for the Invention and Patents;
- (7) The Inventors further covenant and agree to provide testimony, as reasonably requested, if needed to obtain, enforce, or defend any rights assigned here.
- (8) AZL and SKU do hereby covenant that they have full right to convey an interest herein assigned and AZL and SKU have not executed and will not execute any agreement in conflict herewith;
- (9) The undersigned inventors hereby grant the patent practitioners associated with **CUSTOMER NUMBER 78260** the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document; and

(10) The undersigned Inventors and Authorized Representatives hereby represent that he/she understands that the patent practitioners associated with CUSTOMER NUMBER 78260 are the legal representatives of, and attorneys for, Sanaria, Inc., and are NOT the legal representatives of, and attorneys for, the inventors, AZL, SKU, or TI Pharma.

IN WITNESS WHEREOF, executed by the undersigned Inventors on the date opposite his/her name.

Date: 9 JAN 2014 Signature of Inventor:   
Chris J. JANSE

Date: 10. Jan 2014 Signature of Inventor:   
Jakesht ANNOURA

Date: 9 Jan 2014 Signature of Inventor:   
Shahid M. KHAN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ben VAN SCHAUK

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ivo PLOEMEN

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Martijn VOS

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Robert SAUERWEIN

IN WITNESS WHEREOF, executed by the undersigned Parties authorized representative on the date opposite his/her name.

Date: 20 Jan 14 Signature of Authorized Representative: 

Title of Authorized Representative: managing director div. 4  
Academisch Ziekenhuis Leliden

Date: \_\_\_\_\_ Signature of Authorized Representative: \_\_\_\_\_

Title of Authorized Representative: \_\_\_\_\_

Stichting Katholieke Universiteit

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- (D) Named Inventors Ben Van Schaijk, Ivo Ploemen, Martijn Vos and Robert Sauerwein were employees of SKU at the time the invention(s) were made (Chris J. Janse, Takeshi Annoura, Shahid M. Khan, Ben Van Schaijk, Ivo Ploemen, Martijn Vos and Robert Sauerwein are referred to collectively as the "Inventors");
- (E) By operation of the Dutch Patent Act 1995 (*Rijksoctrooiwet 1995*), the rights of the Inventors to the invention(s) are to be assigned to their respective employers;
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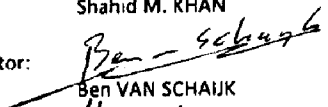
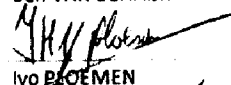
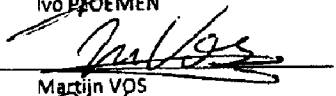

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- (4) The **ASSIGNORS** do hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue the patent on an application as aforesaid, to issue the patent for the invention(s) in the names of the **ASSIGNEES** in accordance with the terms of this agreement;
- (5) The Inventors do hereby covenant that they have full right to convey their entire interest herein assigned and the Inventors have not executed and will not execute any agreement in conflict herewith;
- (6) The Inventors further covenant and agree to communicate to the Assignees any facts know to them respecting the invention(s) and the Applications, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitute, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid the Assignees to obtain and enforce proper patent protection for the Invention and Patents;
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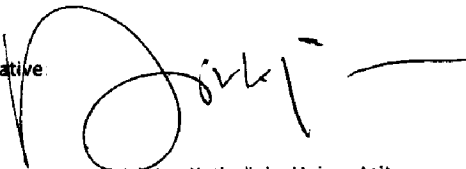
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IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: _____	Signature of Inventor: _____ Chris J. JANSE
Date: _____	Signature of Inventor: _____ Takeshi ANNOURA
Date: _____	Signature of Inventor: _____ Shahid M. KHAN
Date: 16-01-2014	Signature of Inventor:  Ben VAN SCHAUK
Date: 14-1-2014	Signature of Inventor:  Ivo ROEMEN
Date: 9-1-2014	Signature of Inventor:  Martijn VOS
Date: 5/2/2014	Signature of Inventor:  Robert SAUERWEIN

IN WITNESS WHEREOF, executed by the undersigned Parties authorized representative on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Authorized Representative: \_\_\_\_\_  
Title of Authorized Representative: \_\_\_\_\_  
Academisch Ziekenhuis Leiden

Date: 22/1/14 Signature of Authorized Representative:   
Title of Authorized Representative: \_\_\_\_\_  
Stichting Katholieke Universiteit

**Radboudumc**  
Dr. D. Masman  
Technology Transfer Office