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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DA	٩ΤΑ			
		Name	Execution Date	
DAVID L. PORTER			08/18/2015	
MARCO RUELLA			08/13/2015	
MICHAEL MILONE			08/13/2015	
SAAR GILL			08/13/2015	
RECEIVING PARTY DA	 TA			
Name:	THE TF	THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA		
Street Address:	3160 C	3160 CHESTNUT STREET, SUITE 200		
City:	PHILA	PHILADELPHIA		
State/Country:	PENNS	PENNSYLVANIA		
Postal Code:	19104			
Property Type Application Number:		14830392	_	
PROPERTY NUMBERS	Total: 2			
PCT Number:		US1545898		
		001040000		
CORRESPONDENCE D	ΑΤΑ			
CORRESPONDENCE D Fax Number:		(617)395-7070		
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Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1:	e sent to provideo	<i>the e-mail address first; if that is u</i> <i>I; if that is unsuccessful, it will be s</i> (617) 395-7061 AMGPatents@LALaw.com LANDO & ANASTASI, LLP		
Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	e sent to provideo	<i>the e-mail address first; if that is u</i> <i>i; if that is unsuccessful, it will be s</i> (617) 395-7061 AMGPatents@LALaw.com LANDO & ANASTASI, LLP RIVERFRONT OFFICE PARK	sent via US Mail.	
Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	e sent to provideo	<i>the e-mail address first; if that is u</i> <i>i; if that is unsuccessful, it will be s</i> (617) 395-7061 AMGPatents@LALaw.com LANDO & ANASTASI, LLP RIVERFRONT OFFICE PARK ONE MAIN STREET, SUITE 1100	sent via US Mail.	
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Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	e sent to provideo	The e-mail address first; if that is usedb the e-mail address first; if that is usedb that is unsuccessful, it will be s(617) 395-7061AMGPatents@LALaw.comLANDO & ANASTASI, LLPRIVERFRONT OFFICE PARKONE MAIN STREET, SUITE 1100CAMBRIDGE, MASSACHUSETTS 0N2067-706410, 7064WO5ANGELA M. GRANT	sent via US Mail.	

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ASSIGNMENT

WHEREAS, I, David L. Porter, a citizen of the United States of America, having a mailing address of 821 Crum Creek Road, Springfield, Pennsylvania, 19064, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING A CD123 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on <u>August 19, 2014</u> and accorded International Patent Application Number <u>PCI/CN2014/084696</u>;

and filed a PCT International Application on <u>November 6, 2014</u> and accorded International Patent Number PCT/CN2014/090508;

and/or filed a PCT International Application on <u>August 19</u>, 2015 and accorded International Patent Application Number PCT/<u>US2015/045898</u>;

and/or filed in the United States Patent and Trademark Office on <u>August 19</u>, 20 15 and accorded Application Number <u>14/830,392</u>;

AND, I appoint, authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

AND, WHEREAS, The Trustees Of The University Of Pennsylvania of 3160 Chestnut Street, Suite 200, Philadelphia, Pennsylvania 19104, a university of higher education in Pennsylvania, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assignor, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and iransfer not be been made.

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PATENT REEL: 042545 FRAME: 0867

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

Date

David L. Porter

STATE/COMMONWEALTH OF TENSILAULA COUNTY OF

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NOTARIAL SEAL JENNIFER L LEIGHT Notary Public PHILADELPHIA CITY, PHILADELPHIA CNTY My Commission Expires Mar 16, 2016	My Commission Expires: 3-16-16

- 2 -

ASSIGNMENT

WHEREAS, I, Marco Ruella, a citizen of Italy, having a mailing address of 500 South 47th street, Apt. 207, Philadelphia, Pennsylvania, 19143, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful 202- 8/13/2015 MR

TREATMENT OF CANCER USING A CD123 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on <u>August 19, 2014</u> and accorded International Patent Application Number <u>PCT/CN2014/084696</u>;

and filed a PCT International Application on <u>November 6, 2014</u> and accorded International Patent Number <u>PCT/CN2014/090508</u>;

and/or filed a PCT International Application on <u>August 19</u>, 2015 and accorded International Patent Application Number PCT/ US2015/045898 ;

and/or filed in the United States Patent and Trademark Office on <u>August 19</u>, 20_15 and accorded Application Number <u>14/830.392</u>;

AND, I appoint, authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

AND, WHEREAS, The Trustees Of The University Of Pennsylvania of 3160 Chestnut Street, Suite 200, Philadelphia, Pennsylvania 19104, a university of higher education in Pennsylvania, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assigner, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been made.

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignce, as assignce of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

no felle Marco Ruella

Date

STATE/COMMONWEALTH OF <u>Vennslyvania</u>

Before me, a notary public in and for the State and County aforesaid, on this $\sqrt{2}$ day of $\sqrt{2}$ day $\sqrt{2}$, 2015, personally appeared MARCO RUELLA, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his/her free deed and act, signed, sealed and delivered by his/her for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public My Commission Expires: 3.16-16 NOTARIAL SEAL JENNIFER I. LEIGHT Notary Public PHILADELPHIA CITY, PHILADELPHIA CNTY ~2 ~ My Commission Expires Mar 16, 2016

ASSIGNMENT

WHEREAS, I, Michael Milone, a citizen of the United States of America, having a mailing address of 314 Surrey Road, Cherry Hill, New Jersey, 08002, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING A CD123 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on <u>August 19, 2014</u> and accorded International Patent Application Number <u>PCT/CN2014/084696</u>;

and filed a PCT International Application on <u>November 6, 2014</u> and accorded International Patent Number <u>PCT/CN2014/090508</u>;

and/or filed a PCT International Application on <u>August 19</u>, 20<u>15</u> and accorded International Patent Application Number PCT/<u>US2015/045898</u>;

and/or filed in the United States Patent and Trademark Office on <u>August 19</u>, 20<u>15</u> and accorded Application Number <u>14/830,392</u>;

AND, I appoint, authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

AND, WHEREAS, The Trustees Of The University Of Pennsylvania of 3160 Chestnut Street, Suite 200, Philadelphia, Pennsylvania 19104, a university of higher education in Pennsylvania, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assignor, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignce, as assignce of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

Date

Michael Milone

Ennstruania STATE/COMMONWEALTH OF . 88 countrof/miladelatia

Before me, a notary public in and for the State and County aforesaid, on this 160 day of 4000, 2015, personally appeared MICHAEL MILONE, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his/her free deed and act, signed, sealed and delivered by his/her for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public My Commission Expires ,161

NOTARIAL SEAL JENNIFER L LEIGHT Notary Public

PHILADELPHIA GITY, PHILADELPHIA CNTY

PATENT REEL: 042545 FRAME: 0872

My Commission France

-2-

ASSIGNMENT

WHEREAS, I, Saar Gill, a citizen of the United States of America, having a mailing address of 30 North 3rd Street, Apt. 4A, Philadelphia, Pennsylvania, 19106, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING A CD123 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on <u>August 19, 2014</u> and accorded International Patent Application Number <u>PCT/CN2014/084696</u>;

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NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assignor, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me.bacLthis assignment, sale and transfer not been made.

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set us hand and seal. 8/13/2018 Saar Gill STATE/COMMONWEALTH OF

Date

COUNTY OF Kiladela

Before me, a notary public in and for the State and County aforesaid, on this 1) dav 10115t, personally appeared SAAR GILL, who being to me personally known and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his/her free deed and act, signed, sealed and delivered by his/her for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public Commission Expires: \mathfrak{Z} NOTARIAL SEAL JENNIFER L LEIGHT **Notary Public** PHILADELPHIA CITY, PHILADELPHIA CNTY . 2 . My Commission Exores Mar 16, 2016

PATENT

REEL: 042545 FRAME: 0874

RECORDED: 05/31/2017