

## 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>
GERALD GRANT	01/12/2015
PETER LIACOURAS	01/13/2015
<b>RECEIVING PARTY DATA</b>	
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16707551
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<b>ATTORNEY DOCKET NUMBER:</b>	0184.0021-US-CON
<b>NAME OF SUBMITTER:</b>	NATALY HERNANDEZ
<b>SIGNATURE:</b>	/NATALY HERNANDEZ/
<b>DATE SIGNED:</b>	01/02/2020
<b>Total Attachments: 6</b>	
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## ASSIGNMENT OF INVENTION

WHEREAS, I, Gerald Grant, of Kensington, MD, while employed by the Government of the United States of America, hereinafter referred to as the Government, have invented certain new and useful improvements, identified as:

**"Patient-specific trackable cutting guides"**, identified as MH2 Reference 0184.0020; Johns Hopkins University reference C12739\_P12739-08; and Navy docket number NC 103,537PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067174, filed 24 Nov 2014.

**"Real-time cephalometry for cranimaxillofacial surgery"**, identified as MH2 Reference 0184.0017; Johns Hopkins University reference C12739\_P12739-05; and Navy docket number NC 103,536PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067692, filed 26 Nov 2014.

**"Computer-assisted face-jaw-teeth transplantation"**, identified as MH2 Reference 0184.0021; Johns Hopkins University reference C12739\_P12739-09; and Navy docket number NC 103,538PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067504, filed 25 Nov 2014.

**"Computer-assisted craniomaxillofacial surgery"**, identified as MH2 Reference 0184.0022; Johns Hopkins University reference C12739\_P12739-10; and Navy docket number NC 103,539PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067656, filed 26 Nov 2014.

**"Computer-assisted planning and execution system"**, identified as MH2 Reference 0184.0016; Johns Hopkins University reference C12739\_P12739-04; and Navy docket

number NC 103,540PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067671, filed 26 Nov 2014.

"Intra-operative orthognathic biomechanical simulation", identified as MH2 Reference 0184.0018; Johns Hopkins University reference C12739\_P12739-06; and Navy docket number NC 103,541PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067581, filed 26 Nov 2014.

WHEREAS, the Government is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest therein, including foreign rights; and

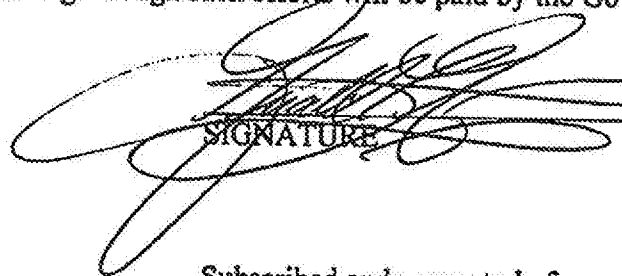
WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to exercise such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, I hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right title, and interest in and to said invention within the United States of America its territories and possessions, and the entire right, title, and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patents as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment not been made.

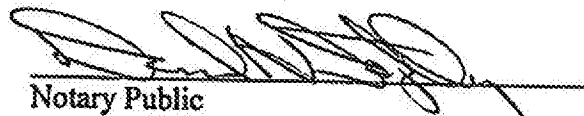
I do hereby also grant unto the Government the entire right, title, and interest in the inventions and all patent applications or other forms of protection thereon in all countries foreign to the United States of America in which the Government may file, or cause to be filed, applications for Letters Patent or other forms of protection, without payment of any consideration; provided, however, that this grant of foreign rights in the invention, or applications or other forms of protection thereon, shall have force and effect only as to foreign countries in which an application or other form of protection is filed, or which are

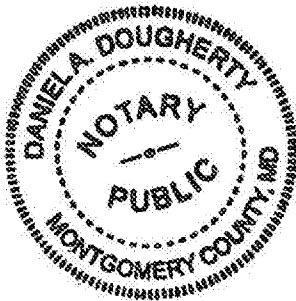
designated in a Patent Cooperation Treaty application and that all foreign rights not exercised are left to me subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign country, including the power to issue sub-licenses for use in behalf of the Government and or/ in furtherance of the foreign policies of the Government.

I hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuations, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expenses arising through such efforts will be paid by the Government.

  
SIGNATURE 7/12/2015  
DATE

Subscribed and sworn to before me this  
13<sup>th</sup> day of January 2015

  
Notary Public



DANIEL A. DOUGHERTY  
NOTARY PUBLIC  
MONTGOMERY COUNTY  
MARYLAND  
MY COMMISSION EXPIRES ON 12 March 2018

## ASSIGNMENT OF INVENTION

WHEREAS, I, Peter Liacouras, of North Potomac, MD, while employed by the Government of the United States of America, hereinafter referred to as the Government, have invented certain new and useful improvements, identified as:

**"Patient-specific trackable cutting guides"**, identified as MH2 Reference 0184.0020; Johns Hopkins University reference C12739\_P12739-08; and Navy docket number NC 103,537PCT, and described in U.S. provisional applications 61/910,204, filed 29 Nov 2013; 61/940, 196, filed 14 February 2014 and 62/049,866 filed 12 Sep 2014, and described in Patent Cooperation Treaty (PCT) application PCT/US2014/067174, filed 24 Nov 2014.

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WHEREAS, the Government is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest therein, including foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to exercise such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, I hereby assign and transfer to the United States of America as represented by the Secretary of Defense the entire right title, and interest in and to said invention within the United States of America its territories and possessions, and the entire right, title, and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patents as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of Defense to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment not been made.

I do hereby also grant unto the Government the entire right, title, and interest in the inventions and all patent applications or other forms of protection thereon in all countries foreign to the United States of America in which the Government may file, or cause to be filed, applications for Letters Patent or other forms of protection, without payment of any consideration; provided, however, that this grant of foreign rights in the invention, or applications or other forms of protection thereon, shall have force and effect only as to foreign countries in which an application or other form of protection is filed, or which are designated in a Patent Cooperation Treaty application and that all foreign rights not exercised are left to me subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign country, including the power to issue sub-licenses for use in behalf of the Government and or/ in furtherance of the foreign policies of the Government.

I hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuations, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expenses arising through such efforts will be paid by the Government.

*Ref. [Signature]*      1/13/15  
SIGNATURE      DATE

Subscribed and sworn to before me this  
13<sup>th</sup> day of Jan, 2015

*Delion Campbell Cross*  
Notary Public

DELION CAMPBELL-CROSS  
NOTARY PUBLIC  
MONTGOMERY COUNTY  
MARYLAND  
My Commission Expires 08-08-2015

