

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3403107

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ROCH BOIVIN	05/20/2015
XIAOLING CHEN	05/15/2015
MARK CRONIN JR.	06/16/2015
LIZBETH CELESTE DESELM	05/29/2015
ANDREAS GOUTOPOULOS	05/15/2015
BAYARD R. HUCK	05/15/2015
THERESA L. JOHNSON	05/29/2015
RUOXI LAN	05/15/2015
CONSTANTIN NEAGU	05/26/2015
JUSTIN POTNICK	05/15/2015
RECEIVING PARTY DATA	
Name:	Merck Patent GmbH
Street Address:	Frankfurter Strasse 250
City:	Darmstadt
State/Country:	GERMANY
Postal Code:	64293
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14432618
CORRESPONDENCE DATA	
Fax Number:	(781)681-2946
<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>	
Phone:	(978)-294-1573
Email:	ipus@emdserono.com
Correspondent Name:	DWIGHT D. KIM
Address Line 1:	ONE TECHNOLOGY PLACE
Address Line 4:	ROCKLAND, MASSACHUSETTS 02370
ATTORNEY DOCKET NUMBER:	P 12/229 US PCT

NAME OF SUBMITTER:	DWIGHT D. KIM
SIGNATURE:	/Dwight D. Kim/
DATE SIGNED:	06/18/2015
Total Attachments: 20 source=P 12 229 US PCT - Executed Assignment#page1.tif source=P 12 229 US PCT - Executed Assignment#page2.tif source=P 12 229 US PCT - Executed Assignment#page3.tif source=P 12 229 US PCT - Executed Assignment#page4.tif source=P 12 229 US PCT - Executed Assignment#page5.tif source=P 12 229 US PCT - Executed Assignment#page6.tif source=P 12 229 US PCT - Executed Assignment#page7.tif source=P 12 229 US PCT - Executed Assignment#page8.tif source=P 12 229 US PCT - Executed Assignment#page9.tif source=P 12 229 US PCT - Executed Assignment#page10.tif source=P 12 229 US PCT - Executed Assignment#page11.tif source=P 12 229 US PCT - Executed Assignment#page12.tif source=P 12 229 US PCT - Executed Assignment#page13.tif source=P 12 229 US PCT - Executed Assignment#page14.tif source=P 12 229 US PCT - Executed Assignment#page15.tif source=P 12 229 US PCT - Executed Assignment#page16.tif source=P 12 229 US PCT - Executed Assignment#page17.tif source=P 12 229 US PCT - Executed Assignment#page18.tif source=P 12 229 US PCT - Executed Assignment#page19.tif source=P 12 229 US PCT - Executed Assignment#page20.tif	

ASSIGNMENT

WHEREAS, Boivin, Roch, a citizen of CANADA, residing at 18 Strawberry Hill Road, North Chelmsford, MA 01863 UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

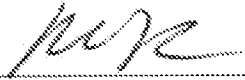
AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

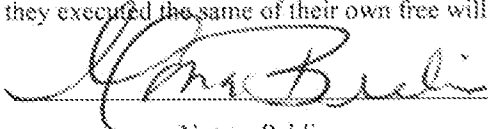
AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

 5/20/2015
Boivin, Roch Date
State of Massachusetts
County of Middlesex SS:

On this 20 day of May, 2015, before me personally appeared **Boivin, Roch**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.


Notary Public

[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Chen, Xiaoling, a citizen of CANADA, residing at 250 Hammond Pond Pkwy, U906S, Chestnut Hill, MA 02467 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor, in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate:

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

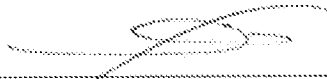
AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

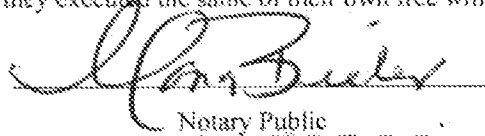


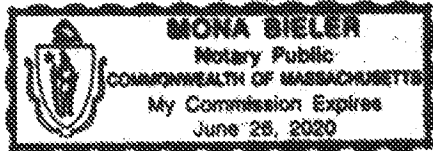
Chen, Xiaoling
State of Massachusetts
County of Middlesex SS:

5/15/15

Date

On this 15 day of May, 20 15, before me personally appeared Chen, Xiaoling, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.



Notary Public


[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Cronin, Jr., Mark, a citizen of UNITED STATES OF AMERICA, residing at 28 Candia Street, Arlington, MA 02474 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;


AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

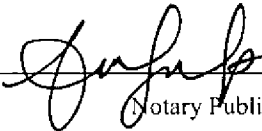


Cronin, Jr., Mark
State of Massachusetts
County of United States SS:

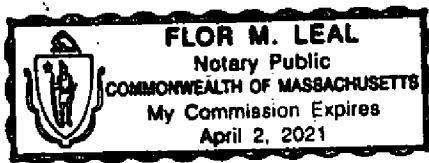
6/16/2015

Date

On this 16 day of June, 20 15, before me personally appeared **Cronin, Jr., Mark**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.



Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, DeSelm, Lizbeth Celeste, a citizen of UNITED STATES OF AMERICA, residing at 33A South High Street, Melrose, MA 02176 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

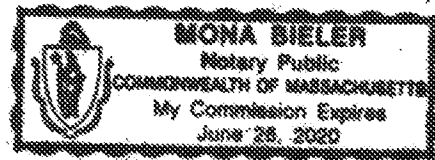
[Signature]
DeSelm, Lizbeth Celeste

5/29/15
Date

State of Massachusetts
County of Middlesex SS:

On this 29 day of May, 2015, before me personally appeared DeSelm, Lizbeth Celeste, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.

[Signature]
Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Goutopoulos, Andreas, a citizen of GREECE, residing at 73 Worcester St., Apt 5, Boston, MA 02118 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

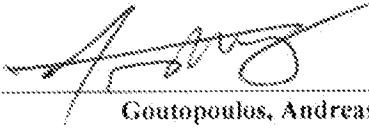
AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

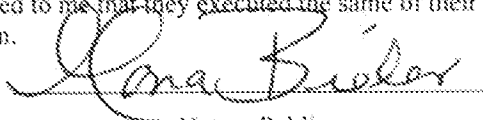
IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

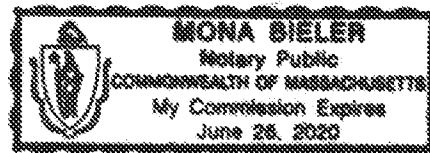

Goutopoulos, Andreas

5/15/15
Date

State of Massachusetts
County of Middlesex SS:

On this 15 day of May, 20 15, before me personally appeared Goutopoulos, Andreas, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.


Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Huck, Bayard R., a citizen of UNITED STATES OF AMERICA, residing at 50 Woodmere Drive, Sudbury, MA 01776 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

[Signature]

Huck, Bayard R.

5-15-15

Date

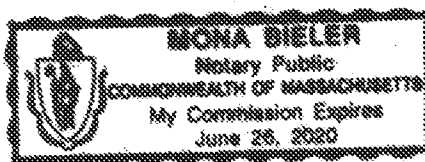
State of Massachusetts

County of Middlesex SS:

On this 15 day of May, 2015, before me personally appeared **Huck, Bayard R.**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.

[Signature]

Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Johnson, Theresa L., a citizen of UNITED STATES OF AMERICA, residing at 63 Ocean Ave., Salem, MA 01970 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

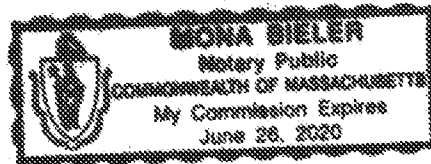
[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

Theresa L. Johnson 29 May 2015
Johnson, Theresa L. Date
State of Massachusetts
County of Middlesex SS:

On this 29 day of May, 2015, before me personally appeared Johnson, Theresa L., personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.

Gina Bieler
Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Lan, Ruoxi, a citizen of CANADA, residing at 204 Clocktower Drive, Unit 6309, Waltham, MA 02452 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate:

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

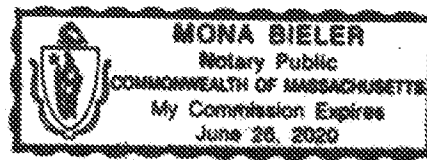
R Lan 05/15/2015

Lan, Ruoxi Date
State of Massachusetts
County of Middlesex SS:

On this 15 day of May, 2015, before me personally appeared Lan, Ruoxi, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.

Mona Bieler

Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Neagu, Constantin, a citizen of ROMANIA, residing at 116 Gilbert Road, Belmont, MA 02478 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.

Cu

Neagu, Constantin

05/26/2015

Date

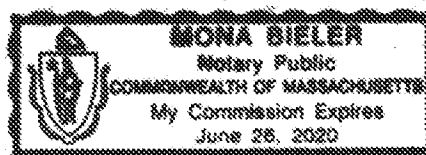
State of Massachusetts

County of Middlesex SS:

On this 26 day of May, 20 15, before me personally appeared **Neagu, Constantin**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.

Mona Bieler

Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]

ASSIGNMENT

WHEREAS, Potnick, Justin, a citizen of UNITED STATES OF AMERICA, residing at 53 Conant Street, Acton, MA 01720 (UNITED STATES OF AMERICA) (hereinafter, "Assignor") has invented certain new and useful improvements relating to **AZAQUINAZOLINE CARBOXAMIDE DERIVATIVES** (hereinafter, the "Invention") as described in U.S. Patent Application No. 14/432,618, filed on MAR/31/2015 (hereinafter, the "Application"); and

WHEREAS, Merck Patent GmbH, an entity organized and existing under the laws of GERMANY having a place of business in Frankfurter Strasse 250, 64293 Darmstadt (GERMANY), together with any successors, assigns and legal representatives thereof (hereinafter, called the "Assignee") is desirous of acquiring the entire right, title and interest, for all countries, in and to said Invention and Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, each Assignor hereby sells, assigns, transfers and conveys unto Assignee the entire right, title and interest of such Assignor in and to said Invention and Application, and all divisions, renewals and continuations thereof, and any and all Letters Patent of the United States which may be granted thereon, and all reissues, reexaminations, and extensions thereof, and all priority rights under all available international agreements, treaties and conventions for the protection of intellectual property in its various forms in every participating country, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and each Assignor hereby authorizes and requests the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate;

AND each Assignor hereby authorizes and empowers the Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from such Assignor;

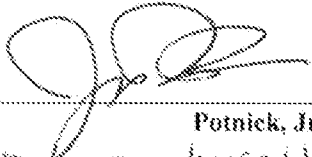
AND each Assignor hereby consents that a copy of this Assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it;

AND each Assignor hereby covenants that such Assignor has the full right to convey the right, title and interest herein assigned and that such Assignor has not executed and will not execute any agreement in conflict herewith;

AND each Assignor hereby covenants and agrees that such Assignor will communicate to Assignee or nominees all facts known to such Assignor pertaining to the Invention, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid Assignee or nominee in obtaining, maintaining and enforcing all lawful patent or other grants of protection of the Invention in any and all countries and regions.

[remainder of page intentionally left blank]

IN TESTIMONY WHEREOF, this Assignment is executed by Assignor on the date opposite the signature of Assignor.



Potnick, Justin

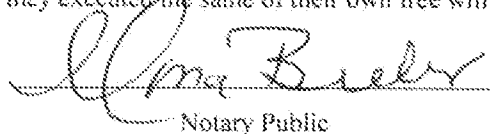
5/15/15

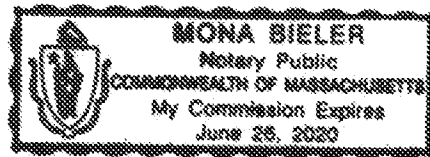
Date

State of Massachusetts

County of Middlesex SS:

On this 15 day of May, 2015, before me personally appeared **Potnick, Justin**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person named in and who executed the foregoing instrument and thereupon acknowledged to me that they executed the same of their own free will for the purposes set forth, and for a valuable consideration.


Notary Public



[SIGNATURE PAGE TO ASSIGNMENT]