

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Young-Shin Kwak</td><td>08/04/2008</td></tr><tr><td>Gary Mark Coppola</td><td>08/05/2008</td></tr></tbody></table>		Name	Execution Date	Young-Shin Kwak	08/04/2008	Gary Mark Coppola	08/05/2008				
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Young-Shin Kwak	08/04/2008										
Gary Mark Coppola	08/05/2008										
RECEIVING PARTY DATA											
<table border="1"><tr><td>Name:</td><td>Novartis AG</td></tr><tr><td>Street Address:</td><td>Lichtstrasse 35</td></tr><tr><td>City:</td><td>Basel</td></tr><tr><td>State/Country:</td><td>SWITZERLAND</td></tr><tr><td>Postal Code:</td><td>4056</td></tr></table>		Name:	Novartis AG	Street Address:	Lichtstrasse 35	City:	Basel	State/Country:	SWITZERLAND	Postal Code:	4056
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PROPERTY NUMBERS Total: 1											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12239029</td></tr></tbody></table>		Property Type	Number	Application Number:	12239029						
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Application Number:	12239029										
CORRESPONDENCE DATA											
Fax Number: (617)871-3392 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Email: marcus.hall@novartis.com											
Correspondent Name: Marcus Hall											
Address Line 1: 220 Massachusetts Avenue											
Address Line 4: Cambridge, MASSACHUSETTS 02139											
ATTORNEY DOCKET NUMBER:	PAT052270-US-NP										
NAME OF SUBMITTER:	Marcus Hall										
Total Attachments: 6 source=52270-US-NP-Assignment#page1.tif source=52270-US-NP-Assignment#page2.tif source=52270-US-NP-Assignment#page3.tif source=52270-US-NP-Assignment#page4.tif source=52270-US-NP-Assignment#page5.tif											

CH \$40.00 12239029

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PATENT
REEL: 025487 FRAME: 0427

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LISA

(joint)

Patent Case 52270

ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, we

Young-Shin KWAK	citizen of South Korea / Republic of Korea	58 Blossomcrest Road Lexington, MA 02421 USA
Gary Mark COPPOLA	citizen of United States Of America	18 Aldersgate Circle Budd Lake, NJ 07828 US

do hereby sell, assign and transfer to Novartis AG, a company organized under the laws of the Swiss Confederation, of Lichtstrasse 35, 4056 Basel, Switzerland, (hereinafter referred to as the "**ASSIGNEE**") and its successors, assigns and legal representatives, all of my right, title and interest for all countries of the world in and to (1) all of my inventions and discoveries described in the patent application(s) titled


ORGANIC COMPOUNDS

and filed in the United States Patent and Trademark Office on _____, 20__ and accorded Application Number _____ * and/or filed in the RO/_____ on _____, 20__ and accorded International Patent Application Number PCT/_____*, (2) the patent application(s) identified in (1), (3) all national stages of any international patent application identified in (1), (4) all other patent applications in all countries and regions claiming the priority of the provisional or non-provisional patent application filed in the United States Patent and Trademark Office on 28 September 2007 and accorded Application Number 60/976,064, (5) for all patent applications, all rights of priority based upon the United States patent application identified in (4) in all countries and regions under the Paris Convention for the Protection of Industrial Property, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application identified in (4) is a provisional patent application, under 35 USC 119(e) (including the right to file patent applications on said inventions and discoveries in the names of **ASSIGNEE** or their designees or in our names, at their election and in accordance with applicable law in all countries and regions), (6) all continuations and divisions of any United States patent application or international patent application designating the United States identified in (1), any national stages of any international application identified in (1) and any patent applications within the scope of (4) (including further continuations and divisions such as, but not limited to, continuations of continuations and continuations of divisions), ((2)-(4) and (6) hereinafter referred to collectively as "patent applications"), (7) all patents that are granted on any of said patent applications, (8) all registrations and confirmations of, and importation certificates based upon, one or more of said patents and applications for such registrations, confirmations and importation certificates and (9) all reissues, renewals and extensions of said patents, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said **ASSIGNEE** and their successors, assigns and legal representatives to the full ends of the terms for which said patents, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by us if this sale, assignment and transfer had not been made.

*We hereby authorize **ASSIGNEE** and their representatives to insert in this Assignment the filing date(s) and Application Number(s) of said patent application(s) when notified thereof.

And we hereby covenant and agree that we will, at any time, (i) upon the request, but at the expense, of **ASSIGNEE** or their successors, assigns or legal representatives execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates and applications within the scope of (8) and (9) in **ASSIGNEE** or their successors, assigns or legal representatives, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of **ASSIGNEE** or their successors, assigns or legal representatives execute all additional patent applications within the scope of (3), (4) and (6) and all applications within the scope of (8) or (9) and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of **ASSIGNEE** or their successors, assigns or legal representatives.

Executed this 4th day of August, 2008

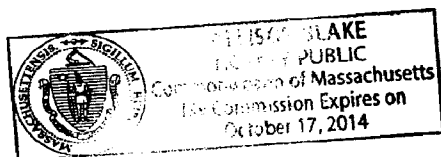
 L.S.
Young-Shin Kwak

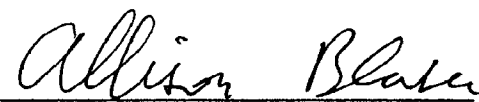
ACKNOWLEDGEMENT

State of MASSACHUSETTS)
County of MIDDLESEX) s.s.:

On this 4th day of AUGUST, 2008 personally appeared before me
YOUNG-SHIN KWAK to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)




Notary Public

Executed this 5TH day of AUGUST, 2008

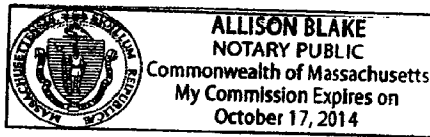
Gary Mark Coppola L.S.
Gary Mark Coppola

ACKNOWLEDGEMENT

State of MASSACHUSETTS)
) S.S.:
County of MIDDLESEX)

On this 5th day of AUGUST, 2008, personally appeared before me
GARY MARK COPPOLA to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)



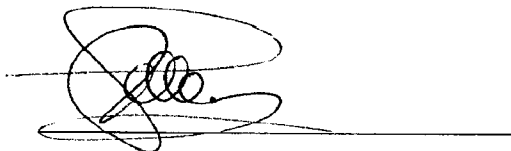
Allison Blake
Notary Public

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to **NOVARTIS AG** of an invention entitled "**ORGANIC COMPOUNDS**" signed by **Young-Shin Kwak** and **Gary Mark Coppola**; this will certify that **NOVARTIS AG** accepts such Assignment.

NOVARTIS AG

By :



Name :

SABINE ZELLER



EDDA RUTSCHMANN

Function :

IP AM. EXPERT PS

IP AM. PROFESSIONAL PS

Date:

07 AUGUST 2008

Attestation

I, the undersigned, notary public of Basel, Switzerland, Dr. Matthias Staehelin, certify herewith the authenticity of the above signatures of **Young-Shin Kwak**, citizen of South Korea, residing in Lexington, Massachusetts, United States of America, and of **Gary Mark Coppola**, citizen of the United States of America, residing in Budd Lake, New Jersey, United States of America.

Further I certify herewith that the above signatures are the genuine signatures of **Ms. Ella Rutschmann**, citizen of Lotzwil/BE, Switzerland, residing in Basel/BS, Switzerland; and of **Ms. Sabine Zeller**, citizen of Ormalingen/BL, Switzerland, residing in Gelterkinden/BL, Switzerland, both acting for **Novartis AG**, in Basel, Switzerland, both as proxy holders, both with joint signature.

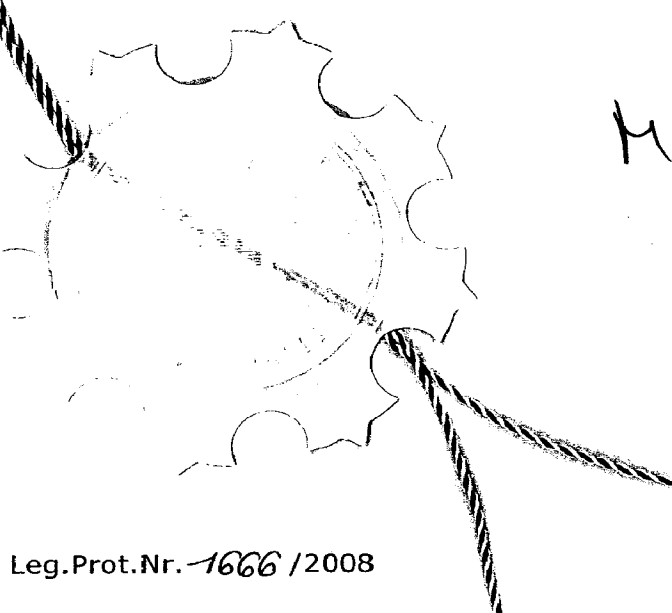
The authenticity of the signatures was established by means of comparison.

BASEL, Switzerland, this 11th (eleventh) day of August 2008 (two thousand and eight)



M. Staehelin, Notar

Dr. M. Staehelin
Notar



Leg.Prot.Nr. 1666 /2008

FOR CERTIFIED COPY

I, the undersigned Civil Law Notary, Dr. Matthias Staehelin, hereby certify that the document attached heretofore is a true and authentic photocopy of the original.

BASEL (SWITZERLAND), this 11th (eleventh) day of August 2008 (twothousandandeight)

M. Staehelin, Notar

Dr. M. Staehelin
Notar

Leg. Prot. 1668/2008