

PATENT ASSIGNMENT

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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>Jose M. Carballido Herrera</td> <td>03/28/2012</td> </tr> <tr> <td>Christoph Heusser</td> <td>03/26/2012</td> </tr> <tr> <td>Christoph Schwaerzler</td> <td>03/28/2012</td> </tr> </tbody> </table>		Name	Execution Date	Jose M. Carballido Herrera	03/28/2012	Christoph Heusser	03/26/2012	Christoph Schwaerzler	03/28/2012		
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<table border="1"> <tr> <td>Name:</td> <td>Novartis Pharma 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 Pharma 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>13265346</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13265346						
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CORRESPONDENCE DATA											
Fax Number:	6178713392										
Phone:	6178715028										
Email:	Melissa.Ponziano@novartis.com										
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>											
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Address Line 1:	220 Massachusetts Avenue										
Address Line 4:	Cambridge, MASSACHUSETTS 02139										
ATTORNEY DOCKET NUMBER:	PAT053543USPCT										
NAME OF SUBMITTER:	Melissa Ponziano										
<p>Total Attachments: 5</p> <p>source=PAT053543_Assignment_Inventors to Novartis Pharma AG#page1.tif</p> <p>source=PAT053543_Assignment_Inventors to Novartis Pharma AG#page2.tif</p> <p>source=PAT053543_Assignment_Inventors to Novartis Pharma AG#page3.tif</p> <p>source=PAT053543_Assignment_Inventors to Novartis Pharma AG#page4.tif</p> <p>source=PAT053543_Assignment_Inventors to Novartis Pharma AG#page5.tif</p>											

CH \$40.00 13265346

ASSIGNMENT

This Assignment Agreement is entered into by and between

José M. CARBALLIDO HERRERA	citizen of Spain	Novartis Pharma AG Postfach 4002 Basel CH
Christoph HEUSSER	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel CH
Christoph SCHWAERZLER	citizen of Austria	Novartis Pharma AG Postfach 4002 Basel CH

(hereinafter "Inventor(s)"), and **NOVARTIS PHARMA AG**, Lichtstrasse 35,4056 Basel, Switzerland, a company organized under the laws of Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, NOVARTIS PHARMA AG is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

If, however, under the laws of any country, I/We the Inventor(s) nevertheless have any ownership right, title or interest in any of the items described herein (which I/We do not believe to be the case and make no claim in or to), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/We the Inventor(s) do hereby sell, assign and transfer to NOVARTIS PHARMA AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of our right, title and interest for all countries of the world in and to

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

IL12Rbeta1 receptor antagonist antibodies [Patent Application PAT053543]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on March 29, 2010 and accorded International Patent Application Number PCT/ EP10/054093; and/or filed in the United States Patent and Trademark Office on April 27, 2009 and accorded Application Number 61/165177;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our/my name, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, 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 is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, 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 to the full ends of the terms for which said patents, utility models, 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 me/us if this sale, assignment and transfer had not been made.

I/We the Inventor(s) hereby authorize ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, 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 execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), 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 .

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment is effective as from the earliest priority date as stated above.

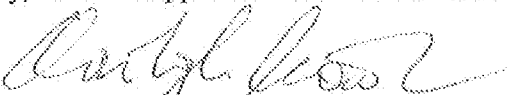
Executed this 28 day of March, 2012 (Previously assigned on the 3rd day of February, 2010 for Application Number 61/165177)

BY [Signature] L.S.
José M. CARBALLIDO HERRERA

Executed this 26 day of March, 2012. Previously assigned on the 16th day of February, 2010 for Application Number 61/165177)

BY [Signature] L.S.
Christoph HEUSSER

Executed this 28 day of March, 2012. (Previously assigned on the 26th day of February, 2010 for Application Number 61/165177)

BY  L.S.
Christoph SCHWAERZLER

Executed this 29 day of June, 2012.

NOVARTIS PHARMA AG

BY  L.S.
Ella Rutschmann
Authorized signatory

NOVARTIS PHARMA AG

BY  L.S.

Reto Halbisen
Authorized signatory

ATTESTATION

I, the undersigned, Civil Law Notary in Basel, Switzerland, Dr. Matthias Staehelin, certify herewith that the signatures attached heretofore are the genuine signatures of **Mr. José Carballido Herrera**, citizen of Spain, residing in Allschwil, Switzerland; of **Mr. Christoph Heusser**, citizen of Zurich, Switzerland, residing in Oberwil/BL, Switzerland; and of **Mr. Christoph Schwaerzler**, citizen of Austria, residing in St. Louis, France.

I further certify that the signature attached heretofore is the genuine signature of **Ms. Silja Rutschmann**, citizen of Lotzwil, Switzerland, residing in Basel, Switzerland; and of **Mr. Reto Halbeisen**, citizen of Wahlen/BL, Switzerland, residing in Laufen, Switzerland; both acting for **Novartis Pharma 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 4th (fourth) day of July 2012 (two thousand and twelve)

M. Staehelin, Notar

Dr. M. Staehelin
Notar

Leg.Prot.Nr. 1131/2012