PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Christoph HEUSSER	06/25/2009
Julia NEUGEBAUER	07/09/2009
Eveline SCHAADT	07/02/2009
Stefanie URLINGER	07/09/2009
Maximilian WOISETSCHLAEGER	07/15/2009

RECEIVING PARTY DATA

Name:	Novartis AG
Street Address:	Lichtstrasse 35
City:	Basel
State/Country:	SWITZERLAND
Postal Code:	4056

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12503175

CORRESPONDENCE DATA

Fax Number: (617)871-3392

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Email: nibr.maildata@novartis.com

Correspondent Name: Katherine Kantorski

Address Line 1: Novartis Institutes for BioMedical Resea

Address Line 2: 220 Massachusetts Avenue

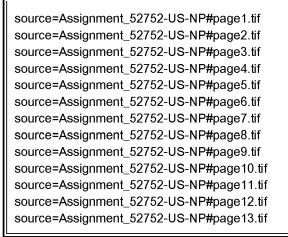
Address Line 4: Cambridge, MASSACHUSETTS 02139

ATTORNEY DOCKET NUMBER:	PAT052752-US-NP
NAME OF SUBMITTER:	Katherine Kantorski

Total Attachments: 13

PATENT REEL: 026562 FRAME: 0946 \$40 00 12EC

501589106





Case 52752

4

ASSIGNMENT

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

Christoph HEUSSER	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel CH
Julia NEUGEBAUER	citizen of Germany	Steinhauser Strasse 25B 81677 München DE
Eveline SCHAADT	citizen of Germany	Kalumbusstrasse 22 81543 München DE
Stefanie URLINGER	citizen of Germany	Asternstrasse 12 80689 München DE
Maximilian WOISETSCHLAEGER	cilizen of Austria	Baithasar-Krauss-Gasse 44/3 2380 Perchtoldsdorf AT

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, and its successors, assigns and legal representatives, all our right, title and interest for all countries of the world (Novartis AG hereinafter referred to as the "**ASSIGNEE**") in and to (1) all of our inventions and discoveries described in the patent application(s) entitled

COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES

filed in the RO/	on	, 20	and accorded	International I	Patent Application
Number PCT		(2) said pate	nt apolication(s). (3) all pation	al stanes of said
International patent applic	ation, (4) all other	patent applic	ations in all co	intries and re	nions claiming the
priority of the European	Procedure, patent	application file	ed on July 17	2008 and acc	corded Application
Number <u>08160671.7</u> , and	i patent application	n filed on Ma	v 15 2009 an	d accorded as	collection Alumba
09160326.6, (5) all con	linuations and div	disions of all	of eald natent	anolications	Aprication and the
continuations and division	s such as but not	limited to con	tinuations of or	applications on	d continued and et
divisions) ((2) (E) baraina	flar unfavoud da acila	minico to, coi	seriabilions of CC	ກແກນສແບກຮະສກ	a commutations of
divisions), ((2)-(5) hereina	ret teletted to colle	ectively as "pat	ent applications	"), (6) all paten	is that are granted
on any of said patent ap	plications, (7) all r	egistrations ar	d confirmations	of, and impo	rtation certificates
based on, one or more	of said patents an	d (8) all reiss	ues, renewals	and extensions	s of said patents
reexamination certificates	issued for said par	tents and sub-	olementary prote	ection certificat	es based on said
patents (including the righ	nt to file patent apr	olications on s	ald inventions	and discoveries	s in the names of
ASSIGNEE, their designer	es or in any or all of	fournames a	their election a	nd in according	na with analisable
law in all countries and re	anione and all right	to of polarity in	a monocio nom	nd or accordan	ce with abblicable
matter than bedrief to a grid to	Amina and an Man	is or buonty in	an countries a	na regions for	all of said patent
applications under the In	ternational Conver	ntion for the l	protection of In	dustrial Prope	rty, and all other
applicable similar internat	onal agreements),	the same to	be held and en	joyed by said	ASSIGNEE, their
successors, assigns and le	gal representatives	s, to the full en	ds of the terms f	or which all pa	lents therefor may
be granted, as fully and	entirely as the sa	ime would ha	ve been held a	and enjoyed h	y ne if this sale
assignment and transfer h	ad not been made.			م 'ميدلاداف، -	2 mm 11 mine 20003

^{*}We hereby authorize ASSIGNEE and their representatives to insert in this instrument the Application Number and the filing date of said patent application when notified thereof.

And we hereby covenant and agree that we will, at any time, upon the request and 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, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates and supplementary protection certificates in ASSIGNEE, their successors, assigns or other 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, that we will, at any time, upon the request and at the expense of ASSIGNEE, execute all additional patent applications, applications for registration and/or confirmation of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for reissues, renewals and extensions of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will 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, the successors, assigns or other legal representatives.

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

Executed this _20 day of _Jame	. 20 0.9
Christoph HEUSSER	L.S.
Executed this day of	, 20
Julia NEUGEBAUER	Ĺ.S,
Executed this day of	, 20
Eveline SCHAADT	L.S.
Executed this day of	. 20
Stefanie URLINGER	L.S.
Executed this day of	, 20
Maximilian WOISETSCUI AEOEN	t.s.

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES" signed by Christoph HEUSSER,

Julia NEUGEBAUER, Eveline SCHAADT, Stefanie URLINGER and Maximilian WOISETSCHLAEGER;

this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG

By:

Ella Rutschmann

Sabine Zeller

Function:

Name:

Authorized Signatory

Authorized Signatory

Date:

26,06,2009

Case 52752

1

ASSIGNMENT

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

Christoph HEUSSER	cilizen of Switzerland	Novarlis Pharma AG Postfach 4002 Basel
Julia NEUGEBAUER	citizen of Germany	CH Steinhauser Strasse 258 81677 München DE
Eveline SCHAADT Stefanie URLINGER	cilizen of Germany	Kolumbusstrasse 22 81543 München DE
	citizen of Germany	Asternstrasse 12 80689 München DE
Maximilian WOISETSCHLAEGER	citizen of Austria	Balthasar-Krauss-Gasse 44/3 2380 Perchtoldsdorf AT

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, and its successors, assigns and legal representatives, all our right, title and interest for all countries of the world (Novartis AG hereinafter referred to as the "ASSIGNEE") in and to (1) all of our inventions and discoveries described in the patent application(s) entitled

COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES

priority of the Europeas Number 08160671.7, on 09160326.6, (5) all continuations and divisions, ((2)-(5) hereing on any of said patent based on, one or more reexamination certificate patents (including the reast of the countries and applications under the applicable similar internsuccessors, assigns and	plication, (4) all other in Procedure, patent and patent application ontinuations and divons such as, but not nafter referred to colle applications, (7) all resistance of said patents and is issued for said patent applications and all right international Conversational agreements), legal representatives	r patent application application filed on May 1 visions of all of ilmited to, continuectively as "patent egistrations and continued to (8) all reissues tents and supplemolications on said four names, at the isof priority in all the same to be into the same to the same to be into the same to the sa	application(s), (3) ons in all countries on July 17, 200 on July 18, 200 on Ju	es and regions class and accorded Applications (including attions and continuations and continuations and continuations and importation continuations of said accordance with a regions for all of said Property, and by said ASSIGN	es of said iming the upplication Number g further uations of e granted ertificates patents, d on said names of ipplicable id patent all other EE, their
applicable similar intern successors, assigns and be granted, as fully an assignment and transfer	ational agreements), legal representatives d entirely as the sa	the same to be	ection of Industr held and enjoyed	ial Property, and I by said ASSIGN	all other EE, their

*We hereby authorize ASSIGNEE and their representatives to insert in this instrument the Application Number and the filling date of said patent application when notified thereof.

ASSIGNEE, 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 and supplementary protection certificates in ASSIGNEE, their successors, assigns or other 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, that we will, at any time, upon the request and at the expense of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for reissues, renewals and extensions of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will 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, the successors, assigns or other legal representatives.

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

Executed this day of	, 20
Christoph HEUSSER	L.S.
Executed this 9 day of Julia NEUGEBAUER	<u>l.s.</u>
Executed this 2 ^{M2} day of 4d EVALUATEVELINE SCHAADT	² 4, 20,09 .
Executed this 9 day of	uly
Executed this day of	
Maximilian WOISETSCUI AEGER	L.S.

<u>ACCEPTANCE</u> OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES" signed by Christoph HEUSSER, Julia NEUGEBAUER, Eveline SCHAADT, Stefanie URLINGER and Maximilian WOISETSCHLAEGER; this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG

Ву:

Elena S. Brugnera Ella Rutschmann

Sabine Zeller

Function:

Name:

Authorized Signatory

Elina S. Bm

Authorized Signatory

Date:

16 JULY 2009

I hereby certify that the above is the true signature subscribed in my presence of

Dr. Eveline SCHAADT, born May 6, 1975, of Kolumbusstrasse 22, 81543 Munich, Germany, identified by German passport.

As stated, the notary, his partner and his deputy were not active on behalf of the deponents off the limits of their professional duties.

Munich, this July 2, 2009

Dr. Oliver Vossius, notary

File No. V 2352/ /2009

I hereby certify that the above are the true signatures subscribed in my presence of

- Dr. Julia NEUGEBAUER, born April 9, 1978, of Steinhauser Strasse 25b, D-81677 Munich, Germany, identified by her German identity card.
- Dr. Stefanie URLINGER,
 born March 6, 1969,
 of Asternstrasse 12, D-80689 Munich, Germany,
 identified by German identity card.

As stated, the notary, his partner and his deputy were not active on behalf of the deponents off the limits of their professional duties.

Munich, this July 9, 2009

Dr. Oliver Vossius, notary



ASSIGNMENT

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

Christoph HEUSSER	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel CH
Julia NEUGEBAUER	cilizen of Germany	Steinhauser Strasse 25B 81677 München DE
Eveline SCHAADT	citizen of Germany	Kolumbusstrasse 22 81543 München DE
Stefanie URLINGER	cilizen of Germany	Asternstrasse 12 80689 München DE
Maximillan WOISETSCHLAEGER	citizen of Austria	Balthasar-Krauss-Gasse 44/3 2380 Perchtoldsdorf AT

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, and its successors, assigns and legal representatives, all our right, title and interest for all countries of the world (Novartis AG hereinafter referred to as the "ASSIGNEE") in and to (1) all of our inventions and discoveries described in the patent application(s) entitled

COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES

filed* in the RO/	on	, 20	, and accorde	International	Patent Application
Number PCT		_, (2) said pat	ent application	(s), (3) all natio	nal stages of said
international patent app	ication, (4) all oth	ner patent appli	cations in all c	ountries and re	gions claiming the
priority of the European	Procedure, pate	nt application f	iled on July 17	7 <u>, 2008</u> and ac	corded Application
Number 08160671.7, a	nd patent applica	tion filed on M	ay 15, 2009 a	ind accorded A	Application Number
09160326.6, (5) all co	ntinuations and	divisions of al	of said pate	nt applications	(including further
continuations and division					
divisions), ((2)-(5) herein					
on any of said patent a					
based on, one or more	of said patents	and (8) all reis	sues, renewals	s and extension	ns of said patents,
reexamination certificate	s issued for said	patents and su	pplementary pr	otection certifica	ates based on said
patents (including the ri					
ASSIGNEE, their design					
law in all countries and					
applications under the					
applicable similar intern					
successors, assigns and	legal representati	ves, to the full e	nds of the term	s for which all p	atents therefor may
be granted, as fully an	d entirely as the	same would h	nave been held	i and enjoyed	by us if this sale,
assignment and transfer	had not been mad	le.			

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

And we hereby covenant and agree that we will, at any time, upon the request and 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, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates and supplementary protection certificates in ASSIGNEE, their successors, assigns or other 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, that we will, at any time, upon the request and at the expense of ASSIGNEE, execute all additional patent applications, applications for registration and/or confirmation of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for reissues, renewals and extensions of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will 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, the successors, assigns or other legal representatives.

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

Executed this day of	, 20,
Christoph HEUSSER	
Executed this day of	, 20
Julia NEUGEBAUER	L.S.
Executed this day of	, 20
Eveline SCHAADT	L.S.
Executed this day of	
Stefanie URLINGER	L.S.
Executed this <u>15</u> day of <u>50</u>	
Maximilian WOISETSCHLAEGER	L.S.

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "COMPOSITIONS AND METHODS OF USE FOR THERAPEUTIC ANTIBODIES" signed by Christoph HEUSSER,

Julia NEUGEBAUER, Eveline SCHAADT, Stefanle URLINGER and Maximilian WOISETSCHLAEGER;

this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG

By:

Ella Rutschmann

Sabine Zeller

Function:

Name:

Authorized Signatory

E. Reitschm

Authorized Signatory

Date:

28,07, 2009

Attestation

I, the undersigned Civil Law Notary of Basel, Switzerland, Dr. Mark Eichner, certify herewith that the signatures attached heretofore are the genuine signatures of Mr. Christoph Heusser, born on the 29th day of November 1944 (nineteen fourty-four), citizen of Zürich, Switzerland, with business address at Novartis Pharma AG, in Basel, Switzerland, and of Mr. Maximilian Woisetschläger, Austrian citizen, residing in Perchtoldsdorf, Austria.

I further certify that signatures attached heretofore are the genuine signatures Ms. Elia Rutschmann, citizen of Lotzwil, Switzerland, residing in Basel, Switzerland, and of Ms. Sabine Zelier, citizen of Ormalingen, Switzerland, residing in Gelterkinden, Switzerland, both acting for Novartis AG, in Basel, Switzerland, both as proxy holders, both with joint signature.

M. Will

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

BASEL, Switzerland, this 31th (thirty-first) day of July 2009 (two thousand and nine)

Leg.Prot.Nr. 326 /2009

FOR CERTIFIED COPY

I, the undersigned Civil Law Notary of Basel, Switzerland, Dr. Mark Eichner, hereby certify that the document attached heretofore is a true and authentic photocopy of the original.

BASEL, Switzerland, this 31th (thirty-first) day of July 2009 (two thousand and nine)

Leg.Prot.Nr. 354 /2009

Marie Marie

PATENT REEL: 026562 FRAME: 0960

RECORDED: 07/08/2011