PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Steven J. Coats	10/11/2010
Yue-Mei Zhang	10/14/2010
Shu-Chen Lin	10/19/2010
Li Liu	10/15/2010
Tamara A. Miskowski	10/31/2010
Scott L. Dax	10/13/2010
Hank Breslin	11/12/2010
Bart L. DeCorte	10/14/2010
Wei He	10/25/2010

RECEIVING PARTY DATA

Name:	Janssen Pharmaceutica, NV
Street Address:	Turnhoutseweg 30
City:	Beerse
State/Country:	BELGIUM

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12913948

CORRESPONDENCE DATA

Fax Number: (732)524-2808

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

Email: JNJUSPATENT@CORUS.JNJ.COM

Correspondent Name: Philip S. Johnson, Esq.

Address Line 1: One Johnson & Johnson Plaza

Address Line 4: New Brunswick, NEW JERSEY 08933

ATTORNEY DOCKET NUMBER: PRD3121

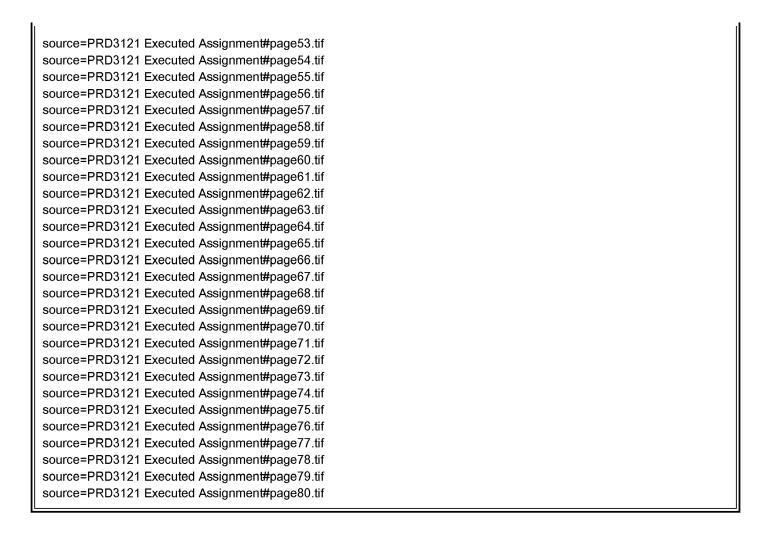
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NAME OF SUBMITTER: Ceceile Solomon

Total Attachments: 80
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ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this \parallel day of ${\it O_{c4}}$, 2010

Steven J. Coats

STATE OF GEORGIO

ss.

COUNTY OF (obb)

BE IT REMEMBERED, That on this day of OA, 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

IN TESTIMON hands and seals t	Y WHEREOF, A his day			eunto	set	their
	Yue-Mei Zhang	J			(L.S	-)
STATE OF) COUNTY OF)) ss.					
BE IT 2010, before me, Zhang, who I am executed the for first made know acknowledge that their voluntary expressed.	satisfied a egoing instru on to them they signed,	blic, per re the p ment in r the cont sealed,	rsonally ersons n my presen tents the and deliv	appear amed i ce, and ereof, ered t	ed Y n an d I the he sa	ue-Mei d who having y did ame as
			Notary	Public	 !	

IN TESTIMONY WHEREOF, Assignors have hereunto hands and seals this day of , 2010	set their
Shu-Chen Lin	(L.S.)
STATE OF)) ss.	
COUNTY OF)	
BE IT REMEMBERED, That on this day 2010, before me, a Notary Public, personally appears Lin, who I am satisfied are the persons named executed the foregoing instrument in my presence, are first made known to them the contents thereof, acknowledge that they signed, sealed, and delivered their voluntary act and deed for the uses and purpotexpressed.	ed Shu-Che in and who nd I having they did the same a
Notary Publi	

hands					, Assigno day of		hereunto 0	set	their
			=					(L.S	.)
			1	Li Liu					
STATE	OF)	\ ~~					
COUNT	Y OF	1)) ss.					
who I foreq known they	am going n to sigr	fore satis ins them ned,	me, sfied trume the seale	a Notary lare the ent in m content ed, and c	Public, persons y presens thereodelivered	personal named in ce, and f, they the same	day ly appear and who e I having did acknow e as theix ein expres	ed Li xecut first wledge r vol	L Liu, ed the made that
						Not	ary Publi		

hands				WHE							reunt	:o s	et	their
				Tamar	a A.	Mis	kows	ki				(:	L.S	.)
	E OF TY OF)	}	ss.									
Miske exectirs acknet thei	owski uted t ma owled	ore, wh the de lge t	me, o I fore know hat	am sagoing n to they	tary atist g ins th sign	Publ fied strum em	ic, are ment the seal	pers the in con ed,	onal pers my pa tents and	ly apsons cesen the deliv	opear name ce, ereoi vered	ed Indinand f, the	Cama I ar I b they	ara A nd who having y dic ame as herein
									No	tary	Publ	lic		

	y WHEREOF, Assignors have hereunt his day of , 2010	o set theim
	Scott L. Dax	(L.S.)
STATE OF) COUNTY OF)) ss.	
2010, before me, Dax, who I am executed the for first made know acknowledge that	REMEMBERED, That on this do a Notary Public, personally appear satisfied are the persons named egoing instrument in my presence, who to them the contents thereof they signed, sealed, and delivered act and deed for the uses and pury	red Scott L in and who and I having f, they did the same as
	Notary Pub	lic

IN TESTIMONY WHEREOF, hands and seals this da	Assignors y of	have hereu , 2010	ınto set their
Hank Breslin	า		(L.S.)
STATE OF)) ss.			
COUNTY OF)			
BE IT REMEMBERED, 2010, before me, a Notary Breslin, who I am satisfied executed the foregoing instrairst made known to them acknowledge that they signed their voluntary act and deed expressed.	Public, are the tument in the cor, sealed,	personally persons name my presence tents ther and delives	appeared Hand med in and who a, and I having eof, they did red the same as
		Notary P	ublic

IN TESTIMONY WHEREOF, Assignors hands and seals this day of ,	
Bart L. DeCorte	(L.S.)
STATE OF) COUNTY OF)	
BE IT REMEMBERED, That on the 2010, before me, a Notary Public, person DeCorte, who I am satisfied are the presented the foregoing instrument in my first made known to them the conteacknowledge that they signed, sealed, as their voluntary act and deed for the usexpressed.	sonally appeared Bart Lersons named in and who presence, and I having ents thereof, they did nd delivered the same as
	Notary Public

hands ar	nd seals	this	day of	, 2010	
		Wei He			(L.S.)
STATE OF) ss.			
who I ar foregoin known t they si	efore me m satisfi ng instru o them t gned, sea	, a Notary ed are the ument in m he content aled, and	persons na y presence s thereof, delivered t	ersonally a med in and w , and I hav they did a	day of ppeared Wei He who executed the ving first mad cknowledge that their voluntary apressed.
				Notary I	Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, $_{
m BE}$ IT KNOWN that for and consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}$ \ of \ \ , \ 2010$

Steven J. Coats (L.S.

STATE OF) ss. COUNTY OF)

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

IN TESTIMON hands and seals t	Y WHEREOF, As his day			reunto	set	their
	Yue-Mei Zhang				(L.S	.)
STATE OF)) ss.					
COUNTY OF)	,					
BE IT 2010, before me, Zhang, who I am executed the for first made know acknowledge that their voluntary expressed.	satisfied ar egoing instrum wn to them t they signed, a	olic, per e the p ent in m the cont sealed, a	ersonally ersons r by preser ents the and deliv	appeare amed ince, and ereof, wered t	ed Yu n an d I l they he sa	d who having y dio ame as
			Notary	Public		

IN TESTIMONY WHEREOF, Assignors have hereunto hands and seals this day of , 2010	set their
Shu-Chen Lin	_ (L.S.)
STATE OF)) ss.	
COUNTY OF)	
BE IT REMEMBERED, That on this day 2010, before me, a Notary Public, personally appear Lin, who I am satisfied are the persons named executed the foregoing instrument in my presence, as first made known to them the contents thereof, acknowledge that they signed, sealed, and delivered their voluntary act and deed for the uses and purpo expressed.	ed Shu-Cher in and who nd I havino they dio the same a:
Notary Publi	
Notary Publi	

IN TESTIMONY WHEREOF, As nands and seals this day	of , 2010
Li Liu	(L.S.)
шти	
STATE OF)) ss.	
COUNTY OF)	
2010, before me, a Notary Pu who I am satisfied are the per foregoing instrument in my p known to them the contents t	That on this day of clic, personally appeared Li Liu sons named in and who executed the resence, and I having first mad hereof, they did acknowledge that wered the same as their voluntar purposes therein expressed.
	Notary Public

IN TESTIMONY WHEREOF, As hands and seals this day	signors have hereunto set their of , 2010
Tamara A. Mis	(L.S.)
STATE OF)	
COUNTY OF)	
2010, before me, a Notary Publ Miskowski, who I am satisfied executed the foregoing instrumfirst made known to them acknowledge that they signed,	hat on this day of , ic, personally appeared Tamara A. are the persons named in and who nent in my presence, and I having the contents thereof, they did sealed, and delivered the same as for the uses and purposes therein
	Notary Public

(L.S.)

STATE OF Pennsylvanice
) ss.
COUNTY OF monty oniery

BE IT REMEMBERED, That on this 13th day of Oct , 2010, before me, a Notary Public, personally appeared Scott L. Dax, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Stephania J. O'Connor, Notary Public Montgomery Twp., Montgomery County My Commission Expires Dec. 6, 2011

Member, Pennsylvania Association of Notaries

	MONY WHEREOF, ls this			anto set th	neir
	Hank Bres	lin		(L.S.)	
STATE OF)) ss.				
COUNTY OF)				
2010, before Breslin, who executed the first made acknowledge t	IT REMEMBERED me, a Notar I am satisfi foregoing ins known to the hat they signary act and de	ry Public, ed are the strument in em the cored, sealed,	personally persons name my presence tents there and delive:	appeared Hemed in and e, and I have eof, they red the same	who ving dio as
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			Notary P	ub⊥ic	

	IMONY WHEREOF, <i>A</i> Is this day			reunto	set	tnei
	Bart L. DeCo	rte			(L.S	.)
STATE OF)) ss.					
2010, before DeCorte, who executed the first made acknowledge t	IT REMEMBERED, me, a Notary Pu I am satisfied foregoing instru known to them that they signed, ary act and deed	ablic, per are the ament in the con- sealed,	rsonally persons i my presen tents the and deliv	appearenamed ince, and ereof, rered to the tree tree to the tree tree tree tree tree tree tree	ed Ba in ar d I l they he sa	nd wh havin y di ame a
			Notary	Public		

	MONY WHEREOF, As ls this day			eunto	set	tneli
	Wei He				(L.S	.)
STATE OF)) ss.					
COUNTY OF)					
2010, before who I am satisforegoing insknown to them they signed,	IT REMEMBERED, T me, a Notary Pub sfied are the pers strument in my pr n the contents th sealed, and deliv for the uses and p	olic, per sons name resence, hereof, t vered the	sonally and and I had hey did a	appeare who ex ving t acknow: their	ed We ecute first ledge volu	ed the made that
			Notary	Public		

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of 244 Hampshire Drive, Chalfont, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank, Breslin of 1974 Muhlenburg Drive, Lansdale, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

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And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

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unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

			(L.S.)
	S	teven J. Coats	
	`		
STATE OF)) ss.	
COUNTY OF)	, ==:	

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

]	Notary	Public	

			(I	S.)
	Yue-Mei Zhang	•		
STATE OF)) ss.			
COUNTY OF)	, -			
BE IT 2010, before me Zhang, who I ar executed the for first made kno acknowledge that their voluntary expressed.	n satisfied a regoing instru wn to them they signed,	blic, personal re the person ment in my pro the contents sealed, and d	lly appeared as named in esence, and thereof, t delivered the	Yue-Mei and who I having hey did same as
		Not	ary Dublic	

		(L.S.)
	Shu-Chen Lin	
STATE OF)		
COUNTY OF)) ss.	
2010, before me, Lin, who I am executed the for first made kno acknowledge that	REMEMBERED, That on this , a Notary Public, personally a satisfied are the persons na regoing instrument in my presen whn to them the contents the they signed, sealed, and delive act and deed for the uses and	appeared Shu-Cher amed in and who ace, and I having ereof, they did vered the same as
	Notary	Public

IN TESTIMONY WHEREOF, Assignation hands and seals this day of	
Li Liu	(L.S.)
STATE OF)) ss. COUNTY OF)	
BE IT REMEMBERED, That a 2010, before me, a Notary Public, who I am satisfied are the persons foregoing instrument in my present known to them the contents thereof they signed, sealed, and delivered act and deed for the uses and purpo	personally appeared Li Liu, named in and who executed the ce, and I having first made f, they did acknowledge that the same as their voluntary
	Notary Public

IN TESTIMONY WHEREOF, Ass hands and seals this day of	signors have hereunto set their of , 2010
Tamara A. Misk	owski (L.S.)
STATE OF)) ss.	
2010, before me, a Notary Public Miskowski, who I am satisfied a executed the foregoing instrume first made known to them to acknowledge that they signed, a	nat on this day of , ic, personally appeared Tamara A. are the persons named in and who ent in my presence, and I having he contents thereof, they did sealed, and delivered the same as or the uses and purposes therein
·	Notary Public

		(L.S.)
Sco	tt L. Dax	
STATE OF)) ss.	
COUNTY OF)		
2010, before me, a Max, who I am satt executed the foregoi first made known to acknowledge that the	EMBERED, That on this Notary Public, personal isfied are the persons ing instrument in my proto them the contents y signed, sealed, and dand deed for the uses	ly appeared Scott L. s named in and who esence, and I having thereof, they did delivered the same as
	Not	ary Dublic

Hank Breslan

HENRY

, o , o ,

Commonwealth

-STATE OF Pennsylvania

SS.

COUNTY OF Ches) ter

BE IT REMEMBERED, That on this 12 day of Movember 2010, before me, a Notary Public, personally appeared Hank HENRY Breslin, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL CYNTHIA M. FICCA, Notary Public West Goshen Twp., Chester County My Commission Expires February 13, 2011

,			(L	.s.)
	Bart L. DeCor	te		
STATE OF)) ss.			
COUNTY OF)	, 55.			
BE IT 2010, before me, DeCorte, who I executed the for first made knowacknowledge that their voluntary expressed.	am satisfied a regoing instrur wn to them they signed,	olic, personal are the personal ment in my protection the contents sealed, and defor the uses	ly appeared ns named in esence, and lesence, and lesence, the elivered the and purposes	Bart L. and who I having hey did same as
		Not	ary Public	

hands and seals thi	s day of	, 2010	
<u>M</u> ·	ei He		(L.S.)
STATE OF)) ss.		
COUNTY OF)			
BE IT RI 2010, before me, a who I am satisfied foregoing instrume known to them the they signed, seale act and deed for the	are the persons nt in my presen- contents thereo: d, and delivered	personally app named in and who ce, and I havi f, they did ack the same as th	eared Wei He c executed the ng first made nowledge than neir voluntar
		Notary Pul	OLIC

IN TESTIMONY WHEREOF, Assignors have hereunto set their

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of 244 Hampshire Drive, Chalfont, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of 1974 Muhlenburg Drive, Lansdale, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, \mathtt{BE} \mathtt{IT} KNOWN that for consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

for the consideration aforesaid, And further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

				(L.S.)
	5	Steven J.	Coats	
STATE OF)) aa		
COUNTY OF)) ss.		

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary	Public	

	Yue-Mei Zhang	(L.S.)
STATE OF)		
COUNTY OF)) ss.	
2010, before me, Zhang, who I am executed the fore first made know acknowledge that	REMEMBERED, That on this a Notary Public, personally app satisfied are the persons named egoing instrument in my presence, on to them the contents thereof they signed, sealed, and delivered act and deed for the uses and pur	eared Yue-Me: d in and who and I having of, they dio d the same as
	Notary Pub	lic

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}\ \operatorname{of}$$, 2010

	Shu-Chen Lin		(L.S.)
STATE OF			
COUNTY OF) ss.		
2010, before m Lin, who I a executed the f first made kn acknowledge tha	e, a Notary Pub m satisfied are oregoing instrur nown to them at they signed,	That on this lic, personally a lic, personally a lice the persons nament in my presenthe contents the sealed, and deliver the uses and	appeared Shu-Cher amed in and who ce, and I having ereof, they did rered the same as
		Notary	Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010
Li Liu (L.S.)
STATE OF) ss.
COUNTY OF)
BE IT REMEMBERED, That on this day of 2010, before me, a Notary Public, personally appeared Li Liu, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.
Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

Tamara A Miskowski (L.S.)

STATE OF PULL)

) ss.

COUNTY OF Bucks)

BE IT REMEMBERED, That on this furty funday of Other, 2010, before me, a Notary Public, personally appeared Tamara A. Miskowski, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

SUSAN M ONRAET
Notary Public
NEW BRITAIN TWR., BUCKS COUNTY
My Commission Expires Oct 31, 2012

NOTARIAL SEAL

	Scott L. Dax			(L.S.)
STATE OF)) ss.			
COUNTY OF)				
BE IT 2010, before me, Dax, who I am executed the for first made kno acknowledge that their voluntary expressed.	satisfied ar regoing instru wn to them they signed,	olic, personal e the person ment in my puthe contents sealed, and	lly appeare as named in resence, and thereof, delivered t	n and who d I having they did he same as
		No	tary Public	<u> </u>

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}$\ of$, 2010

hands and seals this day	of of	, 2010	
Hank Breslin			(L.S.)
STATE OF)) ss.			
BE IT REMEMBERED, 2010, before me, a Notary Breslin, who I am satisfied executed the foregoing instrufirst made known to them acknowledge that they signed, their voluntary act and deed expressed.	Public, pare the parent in mathematics the contact sealed, and	personally persons nam my presence ents there and deliver	appeared Hank ned in and who , and I having eof, they did ed the same as
		Notary Pu	blic

IN TESTIMONY WHEREOF, Assignors have hereunto set their

•	
 -	(L.S.)
Bart L.	DeCorte
	•
STATE OF)	
) ss.	
COUNTY OF)	
	ED, That on this day of
	ry Public, personally appeared Bart L
	fied are the persons named in and who
	nstrument in my presence, and I having
	hem the contents thereof, they did
	med, sealed, and delivered the same as
-	deed for the uses and purposes therein
expressed.	
	•
	Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

hands	and	seals	this	day of	, 2010		
			Wei H	e	<u> </u>	(L.	S.)
STATE	OF)	١	ss.			
COUNT	Y OF)	op.			
who I forego known they	am soing to sign	ore mosatisf instr them ed, se	e, a Noied are rument : the cone aled, a	BERED, That tary Public, the persons in my presen tents thereo and delivered ses and purpo	personally named in ance, and I f, they did the same	nd who execut having firs d acknowledg as their vo	ted the st made ge that
					Notar	y Public	

IN TESTIMONY WHEREOF, Assignors have hereunto set their

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

		(L.S.)
	Steven J. Coats	
STATE OF)	
COUNTY OF) ss.)	

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

]	Notary	Public	

IN TESTIMONY WHEREOF, nands and seals this da				set	their
Yue-Mei Zha	ng			(L.S	.)
STATE OF)) ss.					
BE IT REMEMBERED, 2010, before me, a Notary E Zhang, who I am satisfied executed the foregoing instraints made known to them acknowledge that they signed their voluntary act and deed expressed.	Public, pe are the prument in the configuration, sealed,	rsonall persons my pres tents and de	ly appear named i sence, an thereof, livered t	ed Yu n and I l they	d who having y did ame as
		Nota	ry Public	 ;	

IN TESTIMONY WHEREOF, Ass hands and seals this day o	ignors have hereunto set their
Shu-Chen Lin	(L.S.)
STATE OF) COUNTY OF)	
2010, before me, a Notary Public Lin, who I am satisfied are executed the foregoing instrume first made known to them the acknowledge that they signed, so	at on this day of , ic, personally appeared Shu-Chen the persons named in and who nt in my presence, and I having he contents thereof, they did ealed, and delivered the same as or the uses and purposes therein
-	Notary Public

IN TESTIMONY WHEREOF, Assi hands and seals this day of	gnors have hereunto set their , 2010
Li Liu	(L.S.)
STATE OF)) ss.	
BE IT REMEMBERED, That 2010, before me, a Notary Publi who I am satisfied are the person foregoing instrument in my presknown to them the contents there they signed, sealed, and deliver act and deed for the uses and pure	c, personally appeared Li Liu, is named in and who executed the ence, and I having first made eof, they did acknowledge that ed the same as their voluntary
	Notary Public

IN TESTIMONY WHEREOF, Assigned hands and seals this day of	
	(L.S.)
Tamara A. Miskowsk	i
STATE OF)	
COUNTY OF)	
BE IT REMEMBERED, That of 2010, before me, a Notary Public, public, public, public, who I am satisfied are executed the foregoing instrument if its to made known to them the of acknowledge that they signed, sealed their voluntary act and deed for the expressed.	personally appeared Tamara A. the persons named in and who in my presence, and I having contents thereof, they did to, and delivered the same as
	Notary Public

IN TESTIMONY WHEREOF, As hands and seals this day	signors have hereunto set their of , 2010
Hank Breslin	(L.S.)
Hallk Blesiili	
STATE OF)) ss. COUNTY OF)	
BE IT REMEMBERED, The second of the second o	nat on this day of , ublic, personally appeared Hank re the persons named in and who ent in my presence, and I having the contents thereof, they did sealed, and delivered the same as for the uses and purposes therein
·	Notary Public

IN TESTIM hands and seals				into set their
	Bart L. De	Corte		(L.S.)
STATE OF)) ss.)			
2010, before m DeCorte, who s executed the f first made kn acknowledge th	I am satisfie oregoing inst nown to the at they signe	Public, pend are the crument in the condition, sealed,	rsonally ap persons nam my presence tents ther and delive	day of , peared Bart L. med in and who e, and I having eof, they did red the same as urposes therein
			Notary P	ublic

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 25 μ day of 2010

Wei He (L.S.

STATE OF

) ss.

COUNTY OF

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Wei He, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Asghar Shahzad, Notary Public Lower Providence Twp., Montgomery County My Commission Expires March 24, 2013

Member, Pennsylvania Association of Notaries

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

Steven J. Coats

STATE OF)

COUNTY OF)

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 14 day of $\partial \mathcal{C}$, 2010

Yue-Mei Zhang (L.S.)

STATE OF Pennsylvania) ss. country of Montgomery

BE IT REMEMBERED, That on this day of of, 2010, before me, a Notary Public, personally appeared Yue-Mei Zhang, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

COMMONWEALTH OF PENNSYLVANIA

Christian Rayer Notary Public

Notarial Seal Christine M. Razler, Notary Public Lower Gwynedd Twp., Montgomery County My Commission Expires Nov. 19, 2011

Member, Pennsylvania Association of Notaries

	Shu-Chen Lin	(L.S.)
STATE OF)) ss.	
COUNTY OF)	·
2010, before Lin, who I executed the first made acknowledge	am satisfied are the foregoing instrument in known to them the cathet they signed, sealed	n this day of , bersonally appeared Shu-Cher persons named in and who may presence, and I having ontents thereof, they did not a delivered the same as e uses and purposes therein
		Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}\ \operatorname{of}$$, 2010

Li	Liu (L.S.)
STATE OF)) ss.
COUNTY OF)	
2010, before me, a who I am satisfied foregoing instrumer known to them the they signed, sealed	MEMBERED, That on this day of, Notary Public, personally appeared Li Liu, are the persons named in and who executed the nt in my presence, and I having first made contents thereof, they did acknowledge that d, and delivered the same as their voluntary he uses and purposes therein expressed.
	Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this day of , 2010

IN TESTIMONY WHEREOF, Assignor hands and seals this day of	
Tamara A. Miskowski	(L.S.)
STATE OF)) ss.	
BE IT REMEMBERED, That or 2010, before me, a Notary Public, per Miskowski, who I am satisfied are to executed the foregoing instrument in first made known to them the contacknowledge that they signed, sealed their voluntary act and deed for the expressed.	ersonally appeared Tamara A. he persons named in and who n my presence, and I having ontents thereof, they did it, and delivered the same as
·	Notary Public

				(L.S.)
	Scott L. I)ax			
STATE OF)) ss.				
COUNTY OF)				
2010, before Dax, who I executed the first made acknowledge t	IT REMEMBERED me, a Notary am satisfied foregoing ins known to the hat they signary act and de	Public, per are the p trument in em the coned, sealed,	rsonally appersons na my presendatents the and deliv	ppeared Sco med in and ce, and I h ereof, they ered the sa	d who aving dio me as
			Notary	Public	

IN TESTIMONY WHEREOF, Assignors have hereunto set their

hands and seals this day of , 2010

IN TESTIMONY WHEREOF, As hands and seals this day	signors have hereunto set their of , 2010
Hank Breslin	(L.S.)
STATE OF)) ss.	
2010, before me, a Notary Breslin, who I am satisfied a executed the foregoing instrumfirst made known to them acknowledge that they signed,	hat on this day of , Public, personally appeared Hank are the persons named in and who ment in my presence, and I having the contents thereof, they did sealed, and delivered the same as for the uses and purposes therein
	Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $4\pi \hbar \omega$ day of $000 k\omega$, 2010

Bart I. Pecorte

STATE OF Pennsylvania country of Montgomeny ss.

BE IT REMEMBERED, That on this 14 day of 15, 2010, before me, a Notary Public, personally appeared Bart L. DeCorte, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Christine M, Razler, Notary Public Lower Gwynedd Twp., Montgomery County My Commission Expires Nov. 19, 2011

Member, Pennsylvania Association of Notaries

(L.S.)

IN TESTIMONY hands and seals the					set	their
	Wei He				(L.S	.)
STATE OF) COUNTY OF)) ss.					
BE IT 2010, before me, who I am satisfie foregoing instrum known to them the they signed, seal act and deed for	d are the p ment in my e contents Led, and de	Public, per persons name presence, thereof, livered th	rsonal ed in and I they d e same	ly appeare and who ex I having aid acknow as their	ed We kecute first ledge volu	ed the made that
			Not	ary Public	:	

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara Doylestown, PA A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

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And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

for the consideration aforesaid, Assignors And covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}$ \ of \ \ , \ 2010$

		(L.S.)
	Steven J. Coats	
STATE OF)) ss.	
COUNTY OF)	

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary	Public	

	NY WHEREOF, Assign this day of		nto set thei
	Yue-Mei Zhang		(L.S.)
STATE OF)) ss.		
COUNTY OF)			
2010, before me Zhang, who I ar executed the for first made knowledge that	REMEMBERED, That, a Notary Public, a Notary Public, m satisfied are threepoing instrument wn to them the they signed, seal act and deed for	personally apple persons name in my presence, contents there ed, and delivered.	peared Yue-Me ed in and who and I having of, they did ed the same as
		Notary Pu	blic

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 19 day of Octob, 2010

Shu-Chen In (L.S.)

STATE OF PA)

) ss.

COUNTY OF Bucks)

BE IT REMEMBERED, That on this 19 day of october 2010, before me, a Notary Public, personally appeared Shu-Chen Lin, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

NOTARIAL SEAL
CHIRAYU SHAH
Notary Public
BENSALEM TWP, BUCKS COUNTY
My Commission Expires Aug 2, 2011

hands						Assig lay of				unto	set	their
				Li Li	u		_				(L.S	.)
STATI COUN'))	ss.							
who ifore know they	I am going n to sig:	fore sati g ins them ned,	me, sfie strum n th sea	a No ed are ment ne cor led,	otary the printer that	person: prese there	e, personance, per	rsonal ed in and they c	ly ap and w I hav did ac e as	ppeare ho ex ing cknow their	ed Li ecuto first ledge vol	, Liu, ed the made that untary
						-		Not	ary P	ublic		<u></u>

hands and seals this day	of , 2010
Tamara A. Mis	skowski (L.S.)
STATE OF)) ss.	
Miskowski, who I am satisfied executed the foregoing instru first made known to them acknowledge that they signed,	That on this day of lic, personally appeared Tamara A are the persons named in and whoment in my presence, and I having the contents thereof, they disealed, and delivered the same a for the uses and purposes therein
	Notary Public

in lestimon hands and seals t	-	_		unco sec cher
	Scott L. Dax			(L.S.)
STATE OF) COUNTY OF)) ss.			
BE IT 2010, before me, Dax, who I am executed the for first made know acknowledge that their voluntary expressed.	satisfied ar egoing instru wn to them they signed,	blic, per te the po ment in t the cont sealed,	sonally appersons name my presence tents ther and delive	peared Scott Led in and who e, and I having eof, they did red the same as
			Notary P	ublic

IN TEST1 hands and sea	IMONY WHEREOF, ls this	Assignors day of	have hereum , 2010	nto set their
	Hank Bres	lin		(L.S.)
STATE OF)) ss.			
COUNTY OF)			
2010, before Breslin, who executed the first made acknowledge t	IT REMEMBERED me, a Notar me, a Notar I am satisfi foregoing ins known to the that they signary act and de	ry Public, ed are the trument in em the cor ed, sealed,	personally persons nam my presence, atents there and deliver	appeared Handed in and who and I having of, they did and the same as
			Notary Pu	blic

	s this day	_		co set cherr
	Bart L. DeCo	rte		(L.S.)
STATE OF)) ss.			
2010, before DeCorte, who executed the first made acknowledge the	IT REMEMBERED, me, a Notary Pu I am satisfied foregoing instru known to them hat they signed, ry act and deed	ablic, per are the ment in r the cont sealed,	rsonally apper persons name my presence, tents therec and delivere	d in and who and I having of, they did d the same as
			Notary Pub	lic

	this day of , 2010	Bee cheri
		(T. G.)
	Wei He	(L.S.)
STATE OF)		
COUNTY OF)) ss.	
2010, before me, who I am satisfic foregoing instru known to them th they signed, sea	REMEMBERED, That on this day a Notary Public, personally appeared are the persons named in and who exment in my presence, and I having he contents thereof, they did acknowled, and delivered the same as their the uses and purposes therein express	xecuted the first made vledge that r voluntary
	Notary Public	

ASSIGNMENT

WHEREAS, Steven J. Coats of 764 Alberta Drive, McDonough, GA; Yue-Mei Zhang of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Shu-Chen Lin of 10 Manning Court, High Bridge, NJ; Li Liu of 271 Fox Chase Lane, Doylestown, PA; Tamara A. Miskowski of Welsh & McKean Roads, P.O. Box 776, Spring House, PA; Scott L. Dax of 3 Quail Drive, Landenberg, PA; Hank Breslin of Welsh & Mc Kean Roads, P.O. Box 776, Spring House, PA; Bart L. DeCorte of Welsh & McKean Roads, P.O. Box 776, Spring House, PA and Wei He of 2002 Kestral Circle, Audubon, pA 19493 respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

PHENOXY-SUBSTITUTED PYRIMIDINES AS OPIOID RECEPTOR MODULATORS

for which they have executed an application for Letters Patent of the United States Patent and Trademark Office; and

WHEREAS, JANSSEN PHARMACEUTICA, NV, a corporation of BELGIUM, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

BE IT KNOWN that for and THEREFORE, NOW, consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions. renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and

unencumbered title to the inventions and discoveries above described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this $$\operatorname{day}$ \ of \ \ , \ 2010$

Steven J. Coats (L.S.

STATE OF)) ss. COUNTY OF)

BE IT REMEMBERED, That on this day of , 2010, before me, a Notary Public, personally appeared Steven J. Coats, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

hands and seals t	chis	day of	, 2010		
	Yue-Mei Z	hana		(I	S.)
	Tue Mei Z	nang			
STATE OF)) ss.				
COUNTY OF)					
BE IT 2010, before me, Zhang, who I am executed the for first made know acknowledge that their voluntary expressed.	a Notary satisfie egoing ins wn to the they sign	Public, d are the strument i em the ced, sealed	e persons n my prese contents tl d, and deli	appeared named in nce, and nereof, to vered the	Yue-Me and wh I havin hey di same a
			Notary	/ Public	

IN TESTIMONY WHEREOF, Assignors have hereunto set their

IN TESTIMONY WHEREOF, As hands and seals this day	ssignors have hereunto set their of , 2010
Shu-Chen Lin	(L.S.)
STATE OF)) ss.	
2010, before me, a Notary Pub Lin, who I am satisfied are executed the foregoing instrum first made known to them to acknowledge that they signed,	That on this day of , clic, personally appeared Shu-Chen the persons named in and who ment in my presence, and I having the contents thereof, they did sealed, and delivered the same as for the uses and purposes therein
•	Notary Public

IN TESTIMONY WHEREOF, Assignors have hereunto set their hands and seals this 15% day of their 2010

STATE OF MD)

COUNTY OF Montgomery

BE IT REMEMBERED, That on this day of 2010, before me, a Notary Public, personally appeared Li Liu, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

DARWIN ARMENDARIS Notary Public Anne Arundel County Commission Expires June 16, 201

	IN I	CESTIMO	NY WHERE	OF, Assignors	have	hereunto	set	their
hands	and	seals	this	day of	, 201	.0		

(L.S.)

Tamara A. Miskowski

STATE OF)) ss.

COUNTY OF)

BE IT REMEMBERED, That on this day of 2010, before me, a Notary Public, personally appeared Tamara A. Miskowski, who I am satisfied are the persons named in and who executed the foregoing instrument in my presence, and I having first made known to them the contents thereof, they did acknowledge that they signed, sealed, and delivered the same as their voluntary act and deed for the uses and purposes therein expressed.

Notary Public

IN TESTIMON hands and seals t	y whereof, As his day	ssignors of	have , 2010	hereunto	set t	heir.
	Scott L. Dax				(L.S.)	I
STATE OF) COUNTY OF)) ss.					
BE IT 2010, before me, Dax, who I am executed the for first made know acknowledge that their voluntary expressed.	satisfied are regoing instrum wn to them they signed,	olic, per e the per ment in r the cont sealed,	sonall ersons my pre tents and de	y appeared named in sence, and thereof, altrivered to	d Scot n and d I ha they he san	who aving did me as
			Nota	ary Public		

IN TESTIMON hands and seals	NY WHEREOF, As this day			nto set their
	Hank Breslin			(L.S.)
STATE OF)) no			
COUNTY OF)) ss.			
BE IT 2010, before me Breslin, who I executed the for first made kno acknowledge that their voluntary expressed.	am satisfied a regoing instrum wan to them t they signed,	Public, pare the pare the pare the continuous sealed, a	personally persons named persons named persons there and delivered to the persons of the persons	appeared Hanled in and who and I having of, they did at the same as
			Notary Pu	blic

IN TESTIMONY WHEREOF, A hands and seals this day	Assignors have hereunto set their y of , 2010
Bart L. DeCo	rte (L.S.)
STATE OF)) ss.	
2010, before me, a Notary Pu DeCorte, who I am satisfied executed the foregoing instru- first made known to them acknowledge that they signed,	That on this day of , ablic, personally appeared Bart L. are the persons named in and who ment in my presence, and I having the contents thereof, they did sealed, and delivered the same as for the uses and purposes therein
	Notary Public

				WHEREOF,					unto	set	their
										(L.S	.)
			We	i He							
STATE	OF)) ss.							
COUNT	Y OF)	,							
who I foreg known they	am oing to sign	ore m satisf inst: them ed, se	e, a lied a rumen the ealed	MEMBEREI Notary are the t in m content l, and c	Public person y preses s there deliver	c, pe s name ence, eof, ed th	rsonal ed in and : they o e same	ly ap and w I hav did ac e as i	ppeare ho ex ing : cknow	ecute first ledge vol	ed the made that
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							Not	ary P	ublic		

RECORDED: 04/14/2011