505442943 04/24/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5489744

SUBMISSION TYPE:		NEW ASSIGNMENT				
IATURE OF CONVEYA	ANCE: ASSIGNMENT					
CONVEYING PARTY D	ΑΤΑ					
		Name Execution	Date			
SCOTT THOMPSON	COTT THOMPSON					
ARANAPAKAM VENKA	TESAN	02/20/2014				
TONY PRIESTLEY		02/19/2014				
MRINAL KUNDU		02/19/2014				
ASHIS SAHA		02/19/2014				
RECEIVING PARTY D	ΑΤΑ					
Name:	ENDO	PHARMACEUTICALS INC.				
Street Address:	1400 A	TWATER DRIVE				
City:		ERN				
 State/Country:	PENNS	PENNSYLVANIA				
	19355					
PROPERTY NUMBERS	G Total: 1					
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ASSIGNOR(s)/ INVENTOR(s) 3. Tony Priestley 4. Mrinal Kundu 5. Ashis Saha 6. made an invention entilled: P2X3 and/or P2X2/3 Compounds and Methods for which an application for Letters Patent of the United States: (Select one of the following): is executed concurrently herewith is executed concurrently herewith is executed concurrently herewith was filed in the U.S. Patent and Trademark Office on December 16, 2013, as U.S. Patent Application Serial No.: 61/916,499 ASSIGNEE (Full Name and Address) ENDO PHARMACEUTICALS INC. 1400 Atwater Drive Maivern, PA 19355 Is desirous of acquiring the entire interest in and to said invention and the Letters Patent to be obtained therefor, Now, therefore, in consideration of the payment by Assignee to Assignor of a sum corresponding to One Dollar (\$1.00), and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assigns, the full and exclusive right, title and interest in and to said invention, all applications for Letters Patent for said invention, including all divisions, continuations, and continuations-in-part thereof, all rights to claim priority based thereon, and all Letters Patent, including reissues, to be obtained therefor, including any and all foreign patent rights in this invention corresponding thereto. Assignor hereby warrants that no assignment, sale, agreement or encumbrance has been or will be mado or entered into which would conflict with this Assignment. Assignor agrees it shall be legally bound, upon request of the Assignee or its successors or assigns			mprising the following named ir 	2.	Aranapakam Venkatesan
6. 6. made an invention entitled: <u>P2X3 and/or P2X2/3 Compounds and Methods</u> for which an application for Letters Patent of the United States: (Select one of the following): is executed concurrently herewith is executed concurrently herewith is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): is executed concurrently herewith (Select one of the following): Assigner (Full Name and Address) ENDO PHARMACEUTICALS INC. 1400 Atwater Drive Maivern, PA 19355 (Select one) of the payment by Assignee to Assignor of a sum corresponding to One Dollar (\$1.00), and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assign, the full and exclusive right, thitle and interest in and to sald invention, all applications for Letters Patent for asid invention, including all divisions, continuations, and continuations-in-part thereof, all rights to claim pr		· · · · · · · · · · · · · · · · · · ·			
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ASSIGNEE (Full Name and Address) 1400 Atwater Drive Maivern, PA 19355 is desirous of acquiring the entire interest in and to said invention and the Letters Patent to be obtained therefor, Now, therefore, in consideration of the payment by Assignee to Assignor of a sum corresponding to One Dollar (\$1.00), and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assigns, the full and exclusive right, title and interest in and to said invention, all applications for Letters Patent for said invention, including all divisions, continuations, and continuations-in-part thereof, all rights to claim priority based thereon, and all Letters Patent, including reissues, to be obtained therefor, including any and all foreign patent rights in this invention corresponding thereto. Assignor hereby warrants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment. Assignor agrees it shall be legally bound, upon request of the Assignee or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the Assignor has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto to execute all instruments proper to patent the invention in the United States of America and foreign.countries in the name of the Assignee, and to execute all instruments proper to carry out the intent of this instrument.	is execute was filed i	d concurre n the U.S.	Patent and Trademark Office o	n <u>December</u>	<u>16, 2013, </u>
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Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assigns, the full and exclusive right, title and interest in and to said invention, all applications for Letters Patent for said invention, including all divisions, continuations, and continuations-in-part thereof, all rights to claim priority based thereon, and all Letters Patent, including reissues, to be obtained therefor, including any and all foreign patent rights in this invention corresponding thereto. Assignor hereby warrants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment. Assignor agrees it shall be legally bound, upon request of the Assignee or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the Assignor has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto to execute all instruments proper to patent the invention in the United States of America and foreign.countries in the name of the Assignee, and to execute all instruments proper to carry out the intent of this instrument. If the invention requires a biological deposit, Assignor also grants to Assignee such control over any	Now, the	erefore, in	consideration of the payment b	y Assignee to	o Assignor of a sum corresponding to One
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legal representative thereof, to supply all information and evidence of which the Assignor has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention in the United States of America and foreign countries in the name of the Assignee, and to execute all instruments proper to carry out the intent of this instrument.				e, agreemen	t or encumbrance has been or will be made
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Page 1 of 2 Modified 2/6/03

PATENT REEL: 039260 FRAME: 0433 REEL: 048980 FRAME: 0464

application If not	Identified above.	rs Patent and/or the Attorney Docket or file de	
If the As individually and d	signor includes more than o	ne individual, these obligations shall apply to	these individuals both
		is executed on the day indicated below.	
			Date
	Typed or Printed Name	fut K - Thim	2/19/2014
	2. Aranapakam Venkater	* Witness to Assignor #1	2/20/2014.
	3. Tony Priestley		
SIGNATURE	4. Mrinal Kundu	* Witness to Assignor #3	
	5. Ashis Saha	* Witness to Assignor #4	·······
		* Witness to Assignor #5	
	6.	* Witness to Assignor #6	
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Application for	United States Letters Paten	t:	
Serial No.:		<u>16,499</u>	
Filed:	Dece	ember 16, 2013	

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Total Number of Assignment Pages

Page 2 of 2 Modified 2/6/03

* Witness signature recommended, mandatory for some countries

PATENT REEL: 039260 FRAME: 0434 REEL: 048980 FRAME: 0465

Whereas, the Ass	signor, comprising the following named inven	
ANONODI V	1. Scott Thompson	2. Aranapakam Venkatesan
ASSIGNOR(s)/ NVENTOR(s)	3. Tony Priestley	4. Mrinal Kundu
	5. Ashis Saha	6.
nade an inventio	n entitled: P2X3 and/or P2X2/3 Compounds	and Methods
or which an appli Select one of the f	ication for Letters Patent of the United States	s:
Is executed was filed in	l concurrently herewith the U.S. Patent and Trademark Office on <u>De</u> tent Application Serial No.: <u>61/916,499</u>	ecember 16, 2013,
ASSIGNEE (Full Name and A	ENDO PHARMACEUTICALS IN 1400 Atwater Drive Address) Malvern, PA 19355	С.
s desirous of acc	uiring the entire interest in and to said invent	ion and the Letters Patent to be obtained therefor,
Dollar (\$1.00), an Assignor, intendir assigns, the full a sald invention, ind based thereon, an	Id for other good and valuable consideration, ng to be legally bound, hereby sells, assigns and exclusive right, title and interest in and to cluding all divisions, continuations, and contin	signee to Assignor of a sum corresponding to One the receipt of which is hereby acknowledged, and transfers to Assignee, its successors and said invention, all applications for Letters Patent for nuations-in-part thereof, all rights to claim priority e obtained therefor, including any and all foreign
Assignor or entered into wi	hereby warrants that no assignment, sale, a hich would conflict with this Assignment.	greement or encumbrance has been or will be made
legal representati possession, relati to execute all inst	ive thereof, to supply all information and evid	at of the Assignee or its successors or assigns or a ence of which the Assignor has knowledge or ion, to testify in any legal proceeding relating thereto, a United States of America and foreign countries in over to carry out the intent of this instrument.
	ention requires a biological deposit. Assignor	also grants to Assignee such control over any of the patent rights assigned herein.

Page 1 of 2 Modified 2/6/03

PATENT REEL: 039260 FRAME: 0435 REEL: 048980 FRAME: 0466

aforesaid applic	ation for United States Letters P	to insert at the end hereof, the ser atent and/or the Attorney Docket o	ial number and filing date of the r file designation for this	
	t Identified above.			
If the As Individually and	ssignor includes more than one i collectively.	ndividual, these obligations shall a	pply to these individuals both	
•		executed on the day indicated beio	N.	
	Typed or Printed Name	Signature	Date	
	1. Scott Thompson	•		·
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	2. Aranapakam Venkatesan	n Anna a a dharacha ann an an Anna	······································	
	• •	* Witness to Assignor 1/2		
	3. Tony Priestley	Withy	Feb 19, 2014	
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SIGNATURE	n man an a	* Witness to Assignor #3.	ng n	
	4. Mrinal Kundu			
	n man an a	* Witness to Assignor #4	n an an ann an Anna an Anna an Anna an	
	5. Ashis Saha		· · · · · · · · · · · · · · · · · · ·	
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		* Witness to Assignor #6	- · · · · · · · · · · · · · · · · · · ·	
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 Filed:
 December 16, 2013

 Attorney Docket Number:
 ENP-114USP

 Total Number of Assignment Pages
 * Witness signature recommended, mandatory for some countries

Page 2 of 2 Modified 2/6/03

PATENT REEL: 039260 FRAME: 0436 REEL: 048980 FRAME: 0467

Whereas, the Ass	signor, col	mprising the following named ir		
	1. Sco	tt Thompson	2.	Aranapakam Venkatesan
ASSIGNOR(s)/ INVENTOR(s)	3. Ton	y Priestley	4.	Mrinal Kundu
	5. Ash	lis Saha	6.	
made an inventio	n entitled:	P2X3 and/or P2X2/3 Compou	nds and Meth	10ds
for which an appl (Select one of the f		Letters Patent of the United St	ates:	
🖾 was filed in	the U.S. I	ntly herewith Patent and Trademark Office o ation Serial No.: <u>61/916,499</u>	n <u>December</u>	<u>16, 2013, </u>
ASSIGNEE (Full Name and A	ddress)	ENDO PHARMACEUTICAL 1400 Atwater Drive Malvern, PA 19355	3 INC,	
				the Letters Patent to be obtained therefor, o Assignor of a sum corresponding to One
Dollar (\$1.00), an Assignor, intendit assigns, the full a said invention, in- based thereon, a	nd for othe ng to be le and exclus cluding all nd all Lett	r good and valuable considera gally bound, hereby sells, assi live right, title and interest in an divisions, continuations, and c	tion, the rece gns and trans d to sald invi- ontinuations	sipt of which is hereby acknowledged, sfers to Assignee, its successors and ention, all applications for Letters Patent for -in-part thereof, all rights to claim priority ed therefor, including any and all foreign
or entered into w	hich would	d conflict with this Assignment.		nt or encumbrance has been or will be made
legal representat possession, relat	ive thereo Ing to the truments	f, to supply all information and making and practice of said in proper to patent the invention i	evidence of v vention, to te n the United 3	Assignee or its successors or assigns or a which the Assignor has knowledge or stify in any legal proceeding relating thereto States of America and foreign.countries in rry out the intent of this instrument.
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Page 1 of 2 Modified 2/6/03

PATENT REEL: 039260 FRAME: 0437 REEL: 048980 FRAME: 0468

ASSIGN	IMENT - Patent	Application	Docket Number: E	NP-114USP
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ndividually and	collectively.			ply to these individuals both
In witne	ss whereof, this Assignm	ent is executed on	the day indicated below	
	Typed or Printed N	ame	Signature	Date
	1. Scott Thompson			
		* Witness	to Assignor #1	and a second
	2. Aranapakam Venk	atesan		
	an a	* Witness	to Assignor #2	
	3. Tony Priestley			
		* Witness	to Assignor #3	م الم الم الم الم الم الم الم الم الم ال
SIGNATURE	4. Mrinal Kundu		eender	<u>191‡ Fels. 2014</u>
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	5. Ashis Saha			. <u></u>
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	and a second	* Witness	s to Assignor #6	and a second second Second second
Application for	United States Letters Pa	tent:		
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	et Number: <u>E</u>	NP-114USP		

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Page 2 of 2 Modified 2/6/03

PATENT REEL: 039260 FRAME: 0438 REEL: 048980 FRAME: 0469

Whereas, the Assigno	or, comprising the following named inventors	
1	Scott Thompson	2. Aranapakam Venkatesan
ASSIGNOR(s)/ INVENTOR(s) 3.	Tony Priestley	4. Mrinal Kundu
5.	Ashis Saha	6.
made an invention ent	titled: P2X3 and/or P2X2/3 Compounds and	Methods
for which an applicatio (Select one of the follow	on for Letters Patent of the United States: ving):	
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ASSIGNEE (Full Name and Addre	ENDO PHARMACEUTICALS INC. 1400 Atwater Drive Malvern, PA 19355	
Assignor, intending to assigns, the full and ex- sald invention, includir based thereon, and all patent rights in this inv Assignor here or entered into which v Assignor agre legal representative th possession, relating to to execute all instrume the name of the Assig	ng all divisions, continuations, and continuat Il Letters Patent, including reissues, to be ob vention corresponding thereto. Boy warrants that no assignment, sale, agree would conflict with this Assignment. Bees it shall be legally bound, upon request of hereof, to supply all information and evidenc o the making and practice of sald invention.	transfers to Assignee, its successors and d invention, all applications for Letters Patent for ions-in-part thereof, all rights to claim priority stained therefor, including any and all foreign ement or encumbrance has been or will be made the Assignee or its successors or assigns or a e of which the Assignor has knowledge or to testify in any legal proceeding relating thereto lited States of America and foreign countries in to carry out the intent of this instrument.

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individually and	collectively. ss whereof, this Assig				
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	1. Scott Thompso				••••••••••••••••••••••••••••••••••••••
		* With	ess to Assignor #1		Saaaan ah ga Saag 19 yaa yoo dhagaa yoo ah aa ah
	2. Aranapakam Ve	enkatesan	ا المراجع الم		
		* Witr	ess to Assignor #2		ang ta sang an taon ang ang ang ang ang ang ang ang ang an
	3. Tony Priestley		•. ;		
SIGNATURE		* Witr	ess to Assignor #3		
	4. Mrinal Kundu	- gener mende mendere	- <u></u>		na na sana da ana ana ana ana ana ana ang sana ana ang sana ang sana ang sana ang sana ang sana ang sana ang s
	5. Ashis Saha	* Witr	ess to Assignor 11.4 MISACELO	 >	2/19/14
		* Witr	less to Assignor #5		والمحافظ المحافظ
	6.	و مسجوعه ومساد وبرسان		adamata et	n Brainle and an
		* Witi	ieks to Assignor #6		
Application for	United States Letters	Patent:			
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* Witness signature recommended, mandatory for some countries

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