03/27/2017 504292145

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4338826

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SATOSHI YAMAMOTO	03/08/2017
JUNYA SHIRAI	03/08/2017
TSUNEO ODA	03/08/2017
TAKASHI IMADA	03/08/2017
MITSUNORI KONO	03/08/2017
AYUMU SATO	03/02/2017
YOSHIHIDE TOMATA	03/08/2017
ATSUKO OCHIDA	03/08/2017
NAOKI ISHII	03/08/2017
YUSUKE SASAKI	03/02/2017
YOSHIYUKI FUKASE	02/27/2017
TOMOYA YUKAWA	03/08/2017
SHOJI FUKUMOTO	03/06/2017

RECEIVING PARTY DATA

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State/Country:	JAPAN
Postal Code:	541-0045

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15510225

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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REEL: 041755 FRAME: 0534

PATENT 504292145

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ATTORNEY DOCKET NUM	IBER:	029998-1170-US01

ATTORNEY DOCKET NUMBER:	029998-1170-US01
NAME OF SUBMITTER:	LISA V. MUELLER
SIGNATURE:	/Lisa V. Mueller/
DATE SIGNED:	03/27/2017

Total Attachments: 18

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> PATENT REEL: 041755 FRAME: 0535

ASSIGNMENT

WHEREAS, Satoshi YAMAMOTO, Junya SHIRAI, Tsuneo ODA, Takashi IMADA, Mitsunori KONO, Ayumu SATO, Yoshihide TOMATA, Atsuko OCHIDA, Naoki ISHII, Yusuke SASAKI, Yoshiyuki FUKASE, Tomoya YUKAWA and Shoji FUKUMOTO, hereinafter called the "Assignors" have made the invention described in the United States patent application entitled "HETEROCYCLIC COMPOUND" that has a U.S. Patent Application Number of 15/510,225, filed on March 9, 2017

WHEREAS, Takeda Pharmaceutical Company Limited, a corporation, having a place of business at 1-1, Doshomachi 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0045 Japan, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and to the patent application identified above, and all patents, foreign and domestic, which may be obtained for said invention, as set forth below.

NOW THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefore in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and Assignors' legal representative, that Assignors have the full right to convey the interest assigned by this Assignment; and that the Assignors will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of the Assignment; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignor(s) has executed this agreement.

Date March 8, 2017 Date March 8, 2017	Assignor: Satoshi YAMAMOTO Foko Janufana Witness: Yoko YONEYAMA
Date March 8, 2017	Witness: Misa KIYOHARA
Date March 8, 2017	Janya Shimi Assignor: Junya SHIRAI
Date March 8, 2017	Witness: Yoko YONEYAMA
Date March 8, 2017	Witness: Misa KIYOHARA
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Date March 8, 2017	Assignor: Tsuneo ODA
Date March 8, 2017	Witness: Yoko YONEYAMA
Date March 8, 2017	Witness: Misa KIYOHARA

Date March 8, 2017	Assignor: Takashi IMADA
	Assignor: Takashi IMADA
Date March 8, 2017	Yoko Yong ag Witness: Yoko YONEYAMA
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	Assignor: Mitsunori KONO
Date March 8, 2017	Witness: Yoko YONEYAMA
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Date	Assignor: Ayumu SATO
Date	Witness:
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Date March 8, 2017	Assignor: Yoshihide TOMATA
Date March 8, 2017	Witness: Yoko YONEYAMA
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Date March 8, 2017	Witness: Misa KIYOHARA
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	A. Odlin.
Date March 8, 2017	Assignor: Atsuko OCHIDA
Date March 8, 2017	Toko Forugana
	Witness: Yoko YONEYAMA
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Date March 8, 2017	Witness: Misa KIYOHARA
	William Kilonakii
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Date March 8, 2017	Nachi Ishii
	Assignor: Naoki ISHII
Date March 8, 2017	John Januara
Date	Witness: Yoko YONEYAMA
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Date March 8, 2017	Witness: Misa KIYOHARA
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	Assignor: Yusuke SASAKI
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Date February 27, 2017	yoshi fit
1 1 1	Assignor: Yoshiyuki FUKASE
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Date February 27, 2017	Witness: Navyoshi NOGUCHI
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Date Fobruary 27, 2017	Witness: Takafumi YVKAWA
Date fortung 2() 2011	Witness: Takafumi YUKAWA
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Date March 8, 2017	- and em
	Assignor: Tomoya YUKAWA
D. March 9 2017	John Tonyang
Date March 8, 2017	Witness: Yoko YONEYAMA
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	Witness: Misa KIYOHARA

Date	
·	Assignor: Shoji FUKUMOTO
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	Witness:
Date	
	Witness:

ASSIGNMENT

WHEREAS, Satoshi YAMAMOTO, Junya SHIRAI, Tsuneo ODA, Takashi IMADA, Mitsunori KONO, Ayumu SATO, Yoshihide TOMATA, Atsuko OCHIDA, Naoki ISHII, Yusuke SASAKI, Yoshiyuki FUKASE, Tomoya YUKAWA and Shoji FUKUMOTO, hereinafter called the "Assignors" have made the invention described in the United States patent application entitled "HETEROCYCLIC COMPOUND" that has a U.S. Patent Application Number of 15/510,225_, filed on March 9, 2017____

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NOW THEREFORE, in exchange for valuable and legally sufficient consideration, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States and elsewhere in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States and elsewhere; together with the entire right, title and interest in and to said invention and all patent applications, patents, utility models and designs therefore in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications, patents, utility models and designs defined above; to have and to hold for sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and Assignors' legal representative, that Assignors have the full right to convey the interest assigned by this Assignment; and that the Assignors will assist the Assignee in the prosecution of the patent applications identified above, in the making and prosecution of any other applications that the Assignee may elect to make covering the invention identified above, in vesting in the Assignee like exclusive title in and to all such other patent applications and patents, in the prosecution of any interference which may arise involving said invention, or any such patent application or patent, and in assisting Assignee in enforcement of any rights arising out of the Assignment; and that the Assignors will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Agreement.

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IN TESTIMONY WHEREOF, the Assignor(s) has executed this agreement.

Date	
	Assignor: Satoshi YAMAMOTO
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	Assignor: Junya SHIRAI
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	Assignor: Takashi IMADA
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	Assignor: Mitsunori KONO
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Date March 27	Assignor: Ayumu SATO
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Date March 2, 2011	Witness: Hivoki Takahazi
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1 101011 1	Witness: Toshihiro Imaeda

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	Assignor: Yoshihide TOMATA
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Date	Assignor: Atsuko OCHIDA
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Date March 22017	Assignor: Yusuke SASAKI
Date March 2, 2017 Date March 2, 2017	Witness: Toshihiro IMAEDA
	Witness: Allock Takalaz
Date	Assignor: Yoshiyuki FUKASE
Date	Witness:
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Date	Assignor: Tomoya YUKAWA
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Date _	March, 6. 2017	Story Lukumoto Assignor: Phoji FUKUMOTO
		Assignor: Shoji FUKUMOTO
Date	March . 6. 2017	Yoshie Fukumoto
•		Witness: Yoshie FUKUMOTO
Date	March. 6, 2017	Juste Ohba
		Witness: Yusuke OHBA