#### 09/12/2016 504000406

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
TATSUKI KOIKE	07/29/2016
MAKOTO FUSHIMI	07/29/2016
JUMPEI AIDA	07/29/2016
SHUHEI IKEDA	07/21/2016
TOMOKAZU KUSUMOTO	08/03/2016
HIDEYUKI SUGIYAMA	08/02/2016
HIDEKAZU TOKUHARA	07/29/2016

# **RECEIVING PARTY DATA**

Name:	TAKEDA PHARMACEUTICAL COMPANY LIMITED
Street Address:	1-1, DOSHOMACHI 4-CHOME, CHUO-KU
City:	OSAKA-SHI, OSAKA
State/Country:	JAPAN
Postal Code:	541-0045

# **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15108000

# **CORRESPONDENCE DATA**

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NAME OF SUBMITTER:	JOSHUA B. GOLDBERG
SIGNATURE:	/Joshua B. Goldberg/
DATE SIGNED:	09/12/2016

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PATENT REEL: 039699 FRAME: 0108

### ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION given to **Tatsuki KOIKE**, **Makoto FUSHIMI**, **Jumpei AIDA**, **Shuhei IKEDA**, **Tomokazu KUSUMOTO**, **Hideyuki SUGIYAMA and Hidekazu TOKUHARA**, hereinafter referred to as the ASSIGNOR(S), who has/have invented certain new and useful **4-(PIPERRAZIN-1-YL)-PYRROLIDIN-2-ONE COMPOUNDS AS MONOACYLGLYCEROL LIPASE (MAGL) INHIBITORS**, hereinafter referred to as the invention, for which I/we has/have executed an application for Letters Patent to be filed in the United States Patent and Trademark Office.

WHEREAS, Takeda Pharmaceutical Company Limited, a corporation organized and existing under the laws of the country/state of Japan, whose post office address/business address is 1-1, Doshomachi 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0045 Japan, hereinafter referred to as the ASSIGNEE, desires to acquire the entire right, title and interest for the United States and elsewhere throughout the world in and to said invention and application, including any and all divisions and continuations thereof, all rights of priority under the terms of the International Convention for the Protection of Industrial Property, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues and prolongations thereof.

NOW, WITNESSETH THIS that for and in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, said ASSIGNOR(S) hereby assign(s), sell(s) and transfer(s) to said ASSIGNEE, its assigns and legal representatives, the entire right, title and interest for the United States and elsewhere throughout the world, in and to said invention and application, including any and all divisions and continuations thereof, all rights of priority under the terms of the International Convention for the Protection of Industrial Property, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges, and advantages in any way arising from or pertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said ASSIGNEE and its assigns and legal representatives, in as ample and as beneficial a manner for all intents and purposes as said ASSIGNOR(S) might or could have held and enjoyed the same had this assignment not been made.

> PATENT REEL: 039699 FRAME: 0109

## ASSIGNMENT

ALSO, said ASSIGNOR(S) hereby agree(s) to execute all papers necessary to file said applications in the United States and elsewhere throughout the world, and to assign the same to said ASSIGNEE, or any assignee acquiring title to said invention, and to execute any other papers that may be needed in connection with filing said application and securing any and all Letters Patent thereon.

AND said ASSIGNOR(S) authorize(s) and request(s) the Commissioner of Patents to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to said ASSIGNEE, its assigns and legal representatives, in accordance herewith.

Tatsuki Koike	July 29, 2016
Inventor's Name: Tatsuki KOIKE (sole or first inventor)	Date
Signature Witnessed by: ** ** ** ** ** ** ** ** ** ** ** ** **	i Ankami
Date: July 29, 2016 Printed Name:	Satoshi MIKAMI
Signature Witnessed by:	Hatteri
Date: July 29, 2014 Printed Name:	Yasush: Hattori
Inventor's Name: Makoto FUSHIMI (second inventor)	July 29, 2016
Signature Witnessed by: Yatosh	Mikan;
Date: July 29, 2016 Printed Name:	Natoshi MIKAMI
Signature Witnessed by:	E.
Date: July 29,2016 Printed Name:	

Inventor's Name: Jumpei AIDA (third inventor)	Date
Signature Witnessed by:	
Date: Printed Name:	
Signature Witnessed by:	
Date: Printed Name:	
Inventor's Name: Shuhei IKEDA (fourth inventor)	Date
Signature Witnessed by:	
Date: Printed Name:	
Signature Witnessed by:	
Date: Printed Name:	
Tours Kramto Inventor's Name: Tomokazu KUSUMOTO	Aug. 3, 20/6
Inventor's Name: Tomokazu KUSUMOTO (fifth inventor)	Date
Signature Witnessed by:	Endre
Date: Aug. 3, 20/6 Printed Name: 1	Tohru Tamash
Signature Witnessed by:	Fuji
Date: Aug 3.201b Printed Name:	ka: FUJI

:	Inventor's Name: Hideyuki SUGIYAMA	Aug. 2, 2016
	(sixth inventor)	Date
	Signature Witnessed by: Satoh M	kar:
	Date: Aug 2, 2016 Printed Name: Sate	
	Signature Witnessed by: Mark Dry	for h
	Date: Aug 2. 2016 Printed Name: Mas	sash: ToYoFuku
	Inventor's Name: Hidekazu TOKUHARA	July 29,2016
	(seventh inventor)	
	Signature Witnessed by: Satosh A	kai
	Date: July 29, 20/6 Printed Name: Sat	
	Signature Witnessed by:yasıshi 74	attoir.
	Date: July 29, 2016 Printed Name: Tash	chi Hattori

#### ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION given to Tatsuki KOIKE, Makoto FUSHIMI, Jumpei AIDA, Shuhei IKEDA, Tomokazu KUSUMOTO, Hideyuki SUGIYAMA and Hidekazu TOKUHARA, hereinafter referred to as the ASSIGNOR(S), who has/have invented certain new and useful 4-(PIPERRAZIN-1-YL)-PYRROLIDIN-2-ONE COMPOUNDS AS MONOACYLGLYCEROL LIPASE (MAGL) INHIBITORS, hereinafter referred to as the invention, for which I/we has/have executed an application for Letters Patent to be filed in the United States Patent and Trademark Office.

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		·
Inventor's Name: Tats (sole or first invento		Date
Signature Witnessed by	:	
Date:P	rinted Name:	
Signature Witnessed by	:	
Date: P	rinted Name:	
Inventor's Name: Mako (second inventor)	oto FUSHIMI	Date
Signature Witnessed by	7:	
Date:P	Printed Name:	
Signature Witnessed by	· · · · · · · · · · · · · · · · · · ·	

By:	Inventor's Name: Ju (third inventor)	(A umpei AIDA	July	29, 20/6 ate
	Signature Witnessed	by: agato	Kina	
	Date: July 29, 2016	Printed Name:	Asato	Kina
	Signature Witnessed	by: Ay	W	
	Date: July 29, 2016			Hara
By:				
	Inventor's Name: Sh (fourth inventor)	uhei IKEDA	ľ	ate
	Signature Witnessed	by:		
	Date:	Printed Name:		
	Signature Witnessed	by:		
	Date:	Printed Name:	H.H.	
By:	Inventor's Name: To	omokazu KUSUMOTO	I	Date
	Signature Witnessed	ty:		
	Date:	Printed Name:_		
	Signature Witnessed	by:		
	Date:	Printed Name:		•

Date: \_\_\_\_\_ Printed Name:

Date:\_\_\_\_\_ Printed Name:\_\_\_\_\_

Signature Witnessed by:

PATENT REEL: 039699 FRAME: 0116

#### ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION given to Tatsuki KOIKE, Makoto FUSHIMI, Jumpei AIDA, Shuhei IKEDA, Tomokazu KUSUMOTO, Hideyuki SUGIYAMA and Hidekazu TOKUHARA, hereinafter referred to as the ASSIGNOR(S), who has/have invented certain new and useful 4-(PIPERRAZIN-1-YL)-PYRROLIDIN-2-ONE COMPOUNDS AS MONOACYLGLYCEROL LIPASE (MAGL) INHIBITORS, hereinafter referred to as the invention, for which I/we has/have executed an application for Letters Patent to be filed in the United States Patent and Trademark Office.

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Inventor's Name: (sole or first in		Date
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Signature Witness	ed by:	
Date:	Printed Name:	
Signature Witness	ed by:	
Date:	Printed Name:	
Inventor's Name: (second inventor)		Date
(second inventor)		
Signature Witness		
(second inventor) Signature Witness Date:	sed by:	

Inventor's Name: (third inventor)	Jumpei AIDA	Date
Signature Witnessed	l by:	
Date:	Printed Name:	
Signature Witnessed	l by:	
Date:	Printed Name:	
Shuher clkede Inventor's Name: S	Shuhei IKEDA	July 21, 2016
(fourth inventor)	Snunei ikeda	Date /
Signature Witnessed	l by:	ly
Date: July 21, 2016	Printed Name:	EDOON CHANG
Signature Witnessed	d by: Side	
Date: July 21, 2016	Printed Name:	Shota Kikuchi
Inventor's Name: 1 (fifth inventor)	Tomokazu KUSUMOTe	Date
Signature Witnessed	d by:	
Date:	_ Printed Name:	
Signature Witnessed	d by:	
Date:	Printed Name:	

Inventor's Name: P (sixth inventor)	Hideyuki SUGIYAMA	Date
Signature Witnessed	d by:	
Date:	Printed Name:	
Signature Witnessed	l by:	
Date:	Printed Name:	
	Hidekazu TOKUHARA	Date
Inventor's Name: F (seventh inventor)	Hidekazu TOKUHARA	Date
Inventor's Name: R (seventh inventor) Signature Witnessed	Hidekazu TOKUHARA	Date
Inventor's Name: F (seventh inventor) Signature Witnessed	Hidekazu TOKUHARA	Date

PATENT REEL: 039699 FRAME: 0120

**RECORDED: 09/12/2016**