505773879 11/14/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5820696

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOSHITAKE KOBAYASHI	08/09/2019
MORIHISA SAITOH	09/17/2019
YASUFUMI WADA	08/14/2019
NOBUYUKI NEGORO	08/22/2019
MASASHI YAMASAKI	08/21/2019
TAKAHIRO TANAKA	08/26/2019
NAOMI KITAMOTO	08/15/2019

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16331962

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	084437-0299
NAME OF SUBMITTER:	STEPHEN B. MAEBIUS
SIGNATURE:	/Stephen B. Maebius/
DATE SIGNED:	11/14/2019

505773879 REEL: 051010 FRAME: 0001

Total Attachments: 16		
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PATENT REEL: 051010 FRAME: 0002

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

TAKEDA PHARMACEUTICAL COMPANY LIMITED 1-1, Doshomachi 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0045 Japan

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

CYCLIC COMPOUND

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as set forth in this United States Patent Application

and

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAME	AND SIGNATURE OF INVEN	TOR	
Name:	Toshitake KOBAYASHI	SIGNATURE 小林俊威	Date August 9,2019
NAME	AND SIGNATURE OF WITN	ESSES	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	Morihisa SAITOH	SIGNATURE	Date
NAME	AND SIGNATURE OF WITN	<u>ESSES</u>	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date
NAME	AND SIGNATURE OF INVEN	TOR	
Name:	Yasufumi WADA	SIGNATURE	Date
NAME	AND SIGNATURE OF WITN	<u>ESSES</u>	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date
NAME	AND SIGNATURE OF INVEN	<u>vtor</u>	
Name:	Nobuyuki NEGORO	SIGNATURE	Date
NAME	AND SIGNATURE OF WITN	ESSES	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date

Page 3 of 4

NAME	AND SIGNATURE OF INVENTO	<u>OR</u>	.1.			
Name:	Masashi YAMASAKI	SIGNATURE	山岩	将引	Date	August 21, 2019
NAME	AND SIGNATURE OF WITNES	<u>SES</u>				
Name:		SIGNATURE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Date	
Name:		SIGNATURE	v		Date	
NAME	AND SIGNATURE OF INVENT	OR	•	.io 1 15		
	Takahiro TANAKA	SIGNATURE	田中	军秘	Date	August 26,2019
NAME	AND SIGNATURE OF WITNES	<u>SES</u>			•	
Name:		SIGNATURE			Date	
Name:		SIGNATURE		t to the state of	Date	
•						
NAME	AND SIGNATURE OF INVENT	<u>OR</u>				
Name:	Naomi KITAMOTO	SIGNATURE			Date	
NAME	AND SIGNATURE OF WITNES	SES				
Name:		SIGNATURE			Date	
Name:		SIGNATURE			Date	

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(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

CYCLIC COMPOUND

as set forth in	his United States Patent A	pplication	
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and

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NAME AND SIGNATURE OF 1	<u>INVENTOR</u>	
Name: Toshitake KOBAYASHI	I SIGNATURE	Date
NAME AND SIGNATURE OF	WITNESSES	
Name:	SIGNATURE	Date
Name:	SIGNATURE	Date
NAME AND SIGNATURE OF	INVENTOR	and Date August 17, 2014
Name: Morihisa SAITOH	SIGNATURE Morihin Sa	Date August 17, 2010
NAME AND SIGNATURE OF	WITNESSES	
Name:	SIGNATURE	Date
Name:	SIGNATURE	Date
NAME AND SIGNATURE OF	INVENTOR	*
Name: Yasufumi WADA	SIGNATURE	Date
NAME AND SIGNATURE OF	WITNESSES	
Name:	SIGNATURE	Date
Name:	SIGNATURE	Date
NAME AND SIGNATURE OF	INVENTOR	
Name: Nobuyuki NEGORO	SIGNATURE	Date
NAME AND SIGNATURE OF	WITNESSES	
Name:	SIGNATURE	Date
Name:	SIGNATURE	Date

Page 3 of 4

NAME	AND SIGNATURE OF INVENTO	<u>DR</u>			
Name:	Masashi YAMASAKI	SIGNATURE	Date		
NAME	AND SIGNATURE OF WITNESS	SES .			
Name:		SIGNATURE	Date		
Name:		SIGNATURE	Date		
NAME	AND SIGNATURE OF INVENTO	<u>DR</u>			
Name:	Takahiro TANAKA	SIGNATURE	Date		
NAME	AND SIGNATURE OF WITNES	SES .			
Name:		SIGNATURE	Date		
Name:		SIGNATURE	Date		
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NAME	AND SIGNATURE OF INVENTO	<u>OR</u>			
Name:	Naomi KITAMOTO	SIGNATURE	Date		
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Name:		SIGNATURE	Date		
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Name: Toshitake KOBAYASHI	SIGNATURE	Date	
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Name:	SIGNATURE	Date	
Name:	SIGNATURE	Date	
NAME AND SIGNATURE OF INVE	NTOR		
Name: Morihisa SAITOH	SIGNATURE	Date	
NAME AND SIGNATURE OF WITH	<u>IESSES</u>		,
Name:	SIGNATURE	Date	
Name:	SIGNATURE	Date	
NAME AND SIGNATURE OF INVE	NTOR		
Name: Yasufumi WADA	SIGNATURE Yasufumi Wada	Date	August 14,2019
NAME AND SIGNATURE OF WITH	NESSES		
Name:	SIGNATURE	Date	
Name:	SIGNATURE	Date	
			August 22, 2019
NAME AND SIGNATURE OF INVE	August 22, 2019 NTOR Nobujuki Negoro N.N. 8/22/2019		N.N. 8/22/2019
Name: Nobuyuki NEGORO	SIGNATURE Hobyski Negore	Date	August 20,2019
NAME AND SIGNATURE OF WITT	NESSES		•
Name: Yuko FUJIMORI	SIGNATURE 藤森侑子	_ Date	August 22, 2019
Name: Misa KIYOHARA	SIGNATURE <u>藤森侑子</u> SIGNATURE <u>清甸- 美沙</u>	_ Date	August 22,201

NAME	AND SIGNATURE OF INVENTO	<u>PR</u>			
Name:	Masashi YAMASAKI	SIGNATURE	Date		
NAME	AND SIGNATURE OF WITNESS	EES			
Name:		SIGNATURE	Date		
Name:		SIGNATURE	Date		
NAME	AND SIGNATURE OF INVENTO	<u>OR</u>			
Name:	Takahiro TANAKA	SIGNATURE	Date		
NAME AND SIGNATURE OF WITNESSES					
Name:		SIGNATURE	Date		
Name:		SIGNATURE	Date		
NAME AND SIGNATURE OF INVENTOR					
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Name:	SIGNATURE	Date
Name:	SIGNATURE	Date
NAME AND SIGNATURE OF IN	<u>VENTOR</u>	
Name: Morihisa SAITOH	SIGNATURE	Date
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Name:	SIGNATURE	Date
NAME AND SIGNATURE OF IN	<u>VENTOR</u>	
Name: Yasufumi WADA	SIGNATURE	Date
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NAME AND SIGNATURE OF W	ITNESSES	
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NAME	AND SIGNATURE OF INVE	NTOR .	
Name:	Masashi YAMASAKI	SIGNATURE	Date
NAME	AND SIGNATURE OF WITN	<u>VESSES</u>	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date
<u>NAME</u>	AND SIGNATURE OF INVE	NTOR	
Name:	Takahiro TANAKA	SIGNATURE	Date
NAME	AND SIGNATURE OF WITH	NESSES	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date
<u>NAME</u>	AND SIGNATURE OF INVE	ENTOR	•
Name:	Naomi KITAMOTO	SIGNATURE 北本西美	Date August 15, 2019
NAME	AND SIGNATURE OF WITH	NESSES .	
Name:		SIGNATURE	Date
Name:		SIGNATURE	Date

Note: *Prima facie* evidence of execution may optionally be obtained by execution before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

Page 4 of 4

PATENT REEL: 051010 FRAME: 0018