

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT8029775

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
CALITHERA BIOSCIENCES, INC.		04/11/2023
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	PRECISION PHARMACEUTICALS, INC.	
<b>Street Address:</b>	601 CALIFORNIA STREET	
<b>Internal Address:</b>	SUITE 620	
<b>City:</b>	SAN FRANCISCO	
<b>State/Country:</b>	CALIFORNIA	
<b>Postal Code:</b>	94108	
<b>PROPERTY NUMBERS Total: 15</b>		
<b>Property Type</b>	<b>Number</b>	
Application Number:	15337041	
Application Number:	16101275	
Application Number:	16827503	
Application Number:	62248632	
Application Number:	62281964	
Application Number:	62323034	
Application Number:	15853310	
Application Number:	16370857	
Application Number:	16792186	
Application Number:	17153804	
Application Number:	62438092	
Application Number:	15977948	
Application Number:	16687394	
Application Number:	17164825	
Application Number:	62505282	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(617)832-7000	
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.		

**Phone:** 6178321000  
**Email:** patentdocketing@foleyhoag.com, ctaublib@foleyhoag.com  
**Correspondent Name:** FOLEY HOAG LLP  
**Address Line 1:** 155 SEAPORT BLVD  
**Address Line 2:** SEAPORT WEST  
**Address Line 4:** BOSTON, MASSACHUSETTS 02210-2600

<b>ATTORNEY DOCKET NUMBER:</b>	39482
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<b>NAME OF SUBMITTER:</b>	CARLY G. TAUBLIB
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<b>SIGNATURE:</b>	/Carly G. Taublib/
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<b>DATE SIGNED:</b>	06/28/2023
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**Total Attachments: 12**

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## **EXHIBIT B**

### **Patent Assignment Agreement**

This PATENT ASSIGNMENT AGREEMENT (this "Patent Assignment Agreement") effective as of 11-April-2023 (the "Effective Date"), is executed by Calithera Biosciences, Inc., a Delaware corporation ("Calithera") and delivered to Precision Pharmaceuticals, Inc., a Delaware corporation ("PPI"). All capitalized terms used and not defined herein shall have the meanings ascribed to them in that certain Asset Purchase Agreement (the "APA"), effective as of the Effective Date, by and between Calithera and PPI.

**WHEREAS**, Calithera is the owner of certain patents as set forth in Annex 1 attached hereto (the "Assigned Patents"); and

**WHEREAS**, pursuant to the APA, Calithera has agreed to sell, assign, transfer and deliver to PPI all right, title and interest in and to the Assigned Patents;

**NOW, THEREFORE**, in consideration of the foregoing premises and of other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Assignment of Patents. Effective as of the Effective Date, Calithera sells, transfers, conveys, assigns and delivers to PPI and PPI accepts all right, title and interest of Calithera in and to (a) the patents and patent applications set forth in Annex 1 hereto; (b) all inventions and improvements described and claimed therein, and patents which may be granted from divisions, reissues, substitutions, continuations, continuations-in-part, reexaminations, foreign counterparts and extensions thereof claiming priority to the underlying said patent rights; (c) all income, royalties, damages, claims, and payments now or hereafter due or payable under and with respect thereto, including, without limitation, damages, claims, and payments for past and future infringements thereof; (d) all rights to sue for past, present, and future infringements of the foregoing, including the right to settle suits involving claims and demands for royalties owing; (e) all rights corresponding to any of the foregoing throughout the world; and (f) the right to assign the rights conveyed herein, the same to be held and enjoyed by PPI for PPI's own use and benefit, and for the benefit of PPI's successors, assigns, and legal representatives.

2. Terms of APA. The parties hereto acknowledge and agree that this Patent Assignment Agreement is entered into pursuant to the APA, to which reference is made for a further statement of the rights and obligations of Calithera and PPI with respect to the Assigned Patents. In the event of any conflict or inconsistency between the terms of the APA and the terms of this Patent Assignment Agreement, the terms of the APA shall govern.

3. Recordation and Further Actions. Calithera hereby authorizes the Commissioner for Patents and the Commissioner for Trademarks in the United States Patent and Trademark Office and the officials of corresponding entities or agencies in any applicable jurisdictions to record and register this Patent Assignment Agreement upon request by PPI. For thirty (30) days following the Effective Date, upon PPI's reasonable request and at PPI's expense, Calithera shall take such steps and actions, and provide such cooperation and assistance to PPI and PPI's successors, assigns and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, powers of attorney, or other documents, as may be reasonably necessary to effect, evidence or perfect the assignment of the Assigned Patents to PPI, or any assignee or successor thereto.

4. Successors. This Patent Assignment Agreement shall inure to the benefit of and is binding upon the respective successors and assigns of Calithera and PPI.

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PPI Initials UM

5. Governing Law. This Patent Assignment Agreement (including construction, validity and performance hereof) and all disputes or controversies arising out of or relating to this Patent Assignment Agreement or the transactions contemplated hereby shall be governed by and interpreted in accordance with the internal laws of the State of Delaware as applied to contracts made between Delaware residents in Delaware and solely to be performed in Delaware (without reference to conflicts of law principles).

6. Counterparts. This Patent Assignment Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall together constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Patent Assignment Agreement by facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, the Uniform Electronic Transactions Act or other applicable law, *e.g.*, [www.docusign.com](http://www.docusign.com)) or other transmission method and any counterpart so delivered shall be effective as delivery of a manually-executed counterpart thereof and shall be deemed an original signature for all purposes.

*[Signature Page Follows]*

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**PATENT**  
**REEL: 064091 FRAME: 0780**

IN WITNESS WHEREOF, Calithera has caused this Patent Assignment Agreement to be duly executed effective as of the Effective Date.

**Calithera Biosciences, Inc.**

By: Stephanie Wong  
Name: Stephanie Wong  
Title: Chief Financial Officer

**ACCEPTED:**

**Precision Pharmaceuticals, Inc.**

By: Yatin Mundkur  
Name: Yatin Mundkur  
Title: Chief Executive Officer

**Annex 1 to Patent Assignment Agreement**

**Assigned Patents**

*[Attached]*

# Annex 1 to Patent Assignment Agreement from Calithera to PPI Assigned Patents (consists of 8 pages -- Page 49 of 8)

Calithera Doc No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignee	Project	Application Status	Expiration Date
CBH-011AU1	AU	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2012336100	10/18/12	AU2012336100A1	8/29/14			Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	10/18/32
CBH-011BR1	BR	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1120140394152	10/18/12	BR112014039415A2	6/13/17	1120140394152	11/23/21	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011CA1	CA	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2852695	10/18/12	2852695	4/25/13	2852695	2/26/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011CN1	CN	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	201280061312.2	10/18/12	10434932A	1/22/14	ZL 201280061312.2	2/22/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011EP1	EP	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	12781004.2	10/18/12	2768491	8/27/14	EP2768491	1/22/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011EP1-CH	CH	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	12781004.2	10/18/12	2768491	8/27/14	EP2768491	1/22/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011EP1-DE	DE	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	12781004.2	10/18/12	2768491	8/27/14	60201200890.5	1/22/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011EP1-FR	FR	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	12781004.2	10/18/12	2768491	8/27/14	EP2768491	1/22/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011EP1-GB	GB	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	12781004.2	10/18/12	2768491	8/27/14	EP2768491	1/22/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011HK1	HK	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	15104761.2	10/18/12	1203853	11/6/15	HK1203853	3/29/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011IL1	IL	BORON-CONTAINING COMPOUNDS, PHARMACEUTICAL COMPOSITIONS COMPRISING THEM AND USES THEREOF IN INHIBITING ARGINASE	232113	10/18/12	IL232113A	5/29/17	232113	8/30/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011IN1	IN	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	3034400E/NP/0994	10/18/12	3034400E/NP/0994	4/25/16			Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	10/18/32
CBH-011JP1	JP	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2014-537234	10/18/12	530666	11/20/14	5993459	8/26/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011MX1	MX	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	MX/a/2014/004796	10/18/12	MX2014004796A	5/28/14	343534	11/9/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011US1	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	14/302554	4/17/14	0343319-A1	11/29/14	9266908	2/23/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	10/18/32
CBH-011USP1	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	91/549039	10/29/11					Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	10/18/32
CBH-011WO1	WO	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	P/2012/081260/99	10/18/12	WO/2013/090413	10/29/13			Mars, Incorporated	Arginase (Mars in-licensed)	Granted	
CBH-012AE1	AE	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	P1111/12	4/20/11			2796	10/1/20	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012AU1	AU	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2011242794	4/20/11	AU2011242794A	11/15/12	2011242794	3/9/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012BR1	BR	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1120120270346	4/20/11	BR112012027034A2	7/19/16		10/13/20	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012CA1	CA	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2790607	4/20/11	2790607	10/27/11	2790607	4/9/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012CN1	CN	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	201180039026.8	4/20/11	10306830	4/24/13	ZL201180039026.8	6/29/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012CNDV1	CN	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	20150169571.2	4/20/11	10487695	9/2/15	ZL20150169571.2	11/23/18	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1	EP	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-CH	CH	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-DE	DE	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	60201156674.3	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-ES	ES	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-FR	FR	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-GB	GB	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-IT	IT	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012EP1-NL	NL	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	11716786.6	4/20/11	2560978	2/27/13	2560978	1/30/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012HK1	HK	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	16101953.5	4/20/11	1213301	7/15/16	HK023891	12/13/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012IL1	IL	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	222484	4/20/11			222484	7/31/19	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012IN1	IN	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	9619DELNP/2012	4/20/11		1/22/16	302691	10/30/18	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012JP1	JP	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2013-500208	4/20/11	2013-525354	6/20/13	5989177	3/11/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012KR1	KR	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	10-2012-7030178	4/20/11	KR20130191877A	9/16/13	10-1931822	12/17/18	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012MX1	MX	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	MX/a/2012/012382	4/20/11	MX2012012382A	2/26/13	338114	4/1/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012MXDV1	MX	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	MX/a/2016/002990	4/20/11	MX348422B	6/12/17	348422	6/12/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012MY1	MY	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	P1 201204640	4/20/11	MY162535A	6/15/17	MY162535A	6/15/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012NZ1	NZ	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	603364	4/20/11	NZ603364A	6/26/15	603364	9/29/15	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012NZDV1	NZ	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	799513	4/20/11					Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	
CBH-012RU1	RU	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	2012146819	4/20/11	RU2012146819A	8/27/14	2586219	5/16/16	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012SG1	SG	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	201207297.3	4/20/11	3156906	11/29/12			Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	
CBH-012SGDV1	SG	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	10201503168V	4/20/11	SG 10201503168V	6/29/15	10201503168V	6/27/17	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012TH1	TH	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	130106541	4/20/11					Mars, Incorporated	Arginase (Mars in-licensed)	Pending	
CBH-012US1	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	13/090714	4/20/11	0083469-A1	4/9/12	9040703	5/26/15	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	8/23/32
CBH-012USCON1	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	14/471244	8/28/14	0371175	12/18/14	9984594	6/12/18	Mars, Incorporated	Arginase (Mars in-licensed)	Granted	4/20/31
CBH-012USCON2	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	16/090706	10/17	0153962	4/26/17			Mars, Incorporated	Arginase (Mars in-licensed)	Abandoned	4/20/31

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## Assigned Patents (consists of 8 pages -- Page 50 of 8)

Pub No.	Country	Title	App Number	Filing Date	Pub Number	Publication Date	Prior Art	Inventor	Assignor	Agent	App Status	Examination Date
CBD-012USDV1	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1597296	9/7/8	0251479	9/6/8	10538537	1/21/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	4/20/31
CBD-012USDV2	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1597296	9/7/8	0251479	9/6/8	10538537	1/21/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	4/20/31
CBD-012USDV3	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1597296	9/7/8	0251479	9/6/8	10538537	1/21/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	4/20/31
CBD-012USDV4	US	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	1597296	9/7/8	0251479	9/6/8	10538537	1/21/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	4/20/31
CBD-012ZAI	ZA	INHIBITORS OF ARGINASE AND THEIR THERAPEUTIC APPLICATIONS	201207905	4/20/11	2011320732A1	11/21/13	201207905	6/26/13	Mars Incorporated	Arginase (Mars Inc.)	Granted	4/20/31
CBD-013AU1	AU	BORONATES AS ARGINASE INHIBITORS	2011320732	10/19/11	AU2011320732A1	11/21/13	2011320732	1/9/15/18	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013BR1	BR	BORONATES AS ARGINASE INHIBITORS	112013010990	10/19/11	BR112013010990	9/16/11	BR112013010990	9/16/11	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013CA1	CA	BORONATES AS ARGINASE INHIBITORS	2815536	10/19/11	2815536	5/31/12	2815536	1/9/19	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013CN1	CN	BORONATES AS ARGINASE INHIBITORS	201180657717.4	10/19/11	CN103249373A	8/14/13	ZL 201180657717.4	6/8/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013CNDV1	CN	BORONATES AS ARGINASE INHIBITORS	20161032649.4	10/19/11	10609869	1/9/12/16	ZL 20161032649.4	4/9/23	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1	EP	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-AL	AL	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-AT	AT	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	E 774 611	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-BE	BE	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-BG	BG	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-CH	CH	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-CY	CY	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-CZ	CZ	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-DE	DE	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-DK	DK	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-EE	EE	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-ES	ES	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-FI	FI	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-FR	FR	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-GB	GB	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-GR	GR	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-HR	HR	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-HU	HU	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-IE	IE	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-IS	IS	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-IT	IT	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-LT	LT	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-LU	LU	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-LV	LV	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-MG	MG	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-MK	MK	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-NK	NK	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-MT	MT	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-NL	NL	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-NO	NO	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-PL	PL	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-PT	PT	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-RO	RO	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-RS	RS	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-SE	SE	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-SI	SI	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-SK	SK	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-SM	SM	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EP1-TR	TR	BORONATES AS ARGINASE INHIBITORS	11779904.9	10/19/11	2632927	9/4/13	2632927	2/19/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V1	EP	ARGINASE INHIBITORS AS THERAPEUTICS	16150285.1	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-CH	CH	ARGINASE INHIBITORS AS THERAPEUTICS	16150285.1	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-DE	DE	ARGINASE INHIBITORS AS THERAPEUTICS	60 2011 066 466.2	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-ES	ES	ARGINASE INHIBITORS AS THERAPEUTICS	16150285.1	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-FR	FR	ARGINASE INHIBITORS AS THERAPEUTICS	16150285.1	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-GB	GB	ARGINASE INHIBITORS AS THERAPEUTICS	16150285.1	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V-IT	IT	ARGINASE INHIBITORS AS THERAPEUTICS	90202000069466	10/19/11	3034509	6/22/16	3034509	4/22/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013EPD1V2	EP	BORONATES AS ARGINASE INHIBITORS AND COMPOSITIONS AND USES THEREOF	20162218.0	10/19/11	3719024	9/17/24			Mars Incorporated	Arginase (Mars Inc.)	Published	10/19/31
CBD-013HK1	HK	BORONATES AS ARGINASE INHIBITORS	16113715.6	10/19/11	1255390A	9/8/17	HK1255390	1/8/21	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013JG1	JK	BORONATES AS ARGINASE INHIBITORS	16113715.6	10/19/11	1255390A	9/8/17	HK1255390	1/8/21	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013L1	IL	BORONATE COMPOUNDS, COMPOSITIONS COMPRISING THE SAME AND USES THEREOF	225926	10/19/11	1225026A	9/29/16	225926	12/30/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013N1	IN	BORONATES AS ARGINASE INHIBITORS	3668DOLNP/2013	10/19/11		5/27/16	373616	8/3/21	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013JP1	JP	BORONATES AS ARGINASE INHIBITORS	2013-536669	10/19/11	2013-542223	11/21/13	6998239	4/1/18	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013MO1	MO	BORONATES AS ARGINASE INHIBITORS	J4197	10/19/11			J1004197	9/26/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013MX1	MX	BORONATES AS ARGINASE INHIBITORS	MX/a/2013/006491	10/19/11	537199A	12/19/13	336381	1/15/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013US1	US	ARGINASE INHIBITORS AS THERAPEUTICS	14061415	10/19/11	0129836-A1	5/24/12	9233895	1/18/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	6/16/33
CBD-013USCOND1	US	ARGINASE INHIBITORS AS THERAPEUTICS	14061415	24/75	0191482-A1	7/8/15	9440995	9/13/16	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013USCOND2	US	ARGINASE INHIBITORS AS THERAPEUTICS	16107087	9/21/18	0054101	2/21/19	100630330	3/31/20	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013USCOND3	US	ARGINASE INHIBITORS AS THERAPEUTICS	16794905	21/920	0246302	8/6/20	11389464	7/19/22	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31
CBD-013USD1V1	US	ARGINASE INHIBITORS AS THERAPEUTICS	15020792	7/21/16	0000608	1/5/17	10099092	1/9/18/19	Mars Incorporated	Arginase (Mars Inc.)	Granted	10/19/31

*Calithera Initials* <sup>SW</sup>

**PPI Initials** *ym*



Annex 1 to Patent Assignment Agreement from Calithera to PPI  
Assigned Patents (consists of 8 pages -- Page 51 of 8)

Case No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignee	Project	Application Status	Expiration Date
CBD-039JSP	US	ARGINASE INHIBITORS AS THERAPEUTICS	61069780	10/20/10								
CBD-039WZV	WO	ARGINASE INHIBITORS	PCT/US11/08844	10/20/10	WO/2012/08398	03/15/12			Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	
CBD-014AU1	AU	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	2013249780	3/13/13	AU2013249780A1	12/14/14	2013249780	6/19/18	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014BR1	BR	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	1129143265975	3/13/13	BR112914326597A2	02/27/17	BR112914326597	10/3/20	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014CA1	CA	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	287026	3/13/13	287026	1024/13	ZL287026	05/29/20	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014CN1	CN	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	20136932496.7	3/13/13	19454086	422/16	20136932496.7	11/9/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014EP1	EP	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	13712088.7	3/13/13	2826298	4/1/15	2826298	6/11/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014EP1-CH	CH	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	13712088.7	3/13/13	2826298	4/1/15	2826298	6/11/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014EP1-DE	DE	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	13712088.7	3/13/13	2826298	4/1/15	60201307427.5	6/11/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014EP1-FR	FR	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	13712088.7	3/13/13	2826298	4/1/15	2826298	6/11/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014EP1-SB	GB	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	13712088.7	3/13/13	2826298	4/1/15	2826298	6/11/16	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014HK1	HK	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	15109899.5	3/13/13	1209126	324/16	HK1209126	11/9/18	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014IL1	IL	ARGINASE INHIBITOR COMPOUNDS COMPRISING SAME AND USES THEREOF	235155	3/13/13	235155	628/18	235155	9/28/18	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014IN1	IN	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	9678DELNP22/14	3/13/13	96678OEN2014A	731/16	334338	3/11/20	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014JP1	JP	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	2015-506997	3/13/13	2015-516397	6/11/15	615267	6/21/17	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014MX1	MX	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	MX/A2014/012606	3/13/13	963468	324/16	95578	4/27/18	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014US1	US	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	14/39191	10/10/14	0083341.A1	3/19/15	9200011	12/1/15	Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	3/13/33
CBD-014UKP1	US	RING CONSTRAINED ANALOGS AS ARGINASE INHIBITORS	KI082814	10/8/13					Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	4/28/18
CBD-014WZV	WO	ARGINASE INHIBITORS	PCT/US11/08844	10/20/10	WO/2012/08398	03/15/12			Mars Incorporated	Arginase (Mars Inc-licensed)	Granted	
CBD-026AU1	AU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2016281820	02/3/16	162016281820A1	3/15/16	2016281820	11/6/21	Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026CA1	CA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2980796	02/3/16	2980796	1029/16			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026CN1	CN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	20168004373.X	02/3/16	103621365	4/12/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026CN1	CA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201680113	02/3/16	201680113	7/31/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026EP1	EP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16192831.1	02/3/16	3334310	02/1/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026FR1	FR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16192831.1	02/3/16					Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026IL1	IL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	298382	02/3/16					Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.	Arginase	Phase 3	02/28/36
CBD-026JP1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-507297	02/3/16	2018-505552	7/8/18			Calthera Biosciences, Inc.</			

### *Calithera Initials*

*PPI Initials*

## Assigned Patents (consists of 8 pages -- Page 52 of 8)

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### *Calithera Initials*

*PPI Initials*

Annex 1 to Patent Assignment Agreement from Calithera to PPI  
Assigned Patents (consists of 8 pages -- Page 53 of 8)

Calithera Div. No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignor	Project	Application Status	Expiration Date
CBH-028R1	KR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10-2019-7015208	10/28/16	10-2019-0084563	7/24/19	10-2434308	8/16/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-030R1	KR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10-2022-7028640	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	SE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	190448	10/28/16			190448	1/26/23	Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	UK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	22137	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	NK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	MX/a/2018/005294	10/28/16		10/19/18	397978	11/29/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	MY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P2018/01596	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	MY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P2022305340	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	NZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	742742	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	NZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	781732	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	NZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	781733	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	NZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	781734	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	PE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	8391-2019020	10/28/16	2019-1776	2/9/19			Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	PH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2019-500999	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	PH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2022-551382	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	SG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	11291802961P	10/28/16			11291802961P	3/30/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	SG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10291911402Y	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	SG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10291911400T	10/28/16	SG 10291911402YA	2/27/20			Calithera Biosciences, Inc.	Arginase 1568	Published	10/28/36
CBH-028R1	SG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10203063966R	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	TH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1801002496	10/28/16	1801002496A	11/8/21			Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	TW	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	105136189	10/28/16	201726692	8/1/17	1719565	11/21/20	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	TW	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	109136297	10/13/20			1734630	7/21/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	TW	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	110129153	10/13/20	202146028	12/16/21	1775556	8/21/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	UA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	a201805902	10/28/16			125289	2/16/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	UA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	a202106337	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	15/337041	10/28/16	0121352	9/4/17	10,965,974	9/4/18	Calithera Biosciences, Inc.	Arginase 1568	Granted	11/25/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16/827503	3/23/20	US2020022872	7/16/20	10,844,060	11/24/20	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16/191275	8/10/18	US20190346489	12/6/18	10,861,118	12/1/20	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	17/096530	11/12/20	US20210061822	3/4/21			Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16/049635	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	02/391954	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	02/391954	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	VN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2019-02202	10/28/16			34008	10/11/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	VN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2022-03969	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-028R1	WC	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	0131016103042	10/28/16	WC 100705553	6/6/17			Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201803556	10/28/16			201803556	3/24/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201807087	10/28/16			201807087	3/26/21	Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-028R1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201907092	10/28/16			201907092	4/28/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	10/28/36
CBH-028R1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201907093	10/28/16					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-030R1	AR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P179139673	12/22/17	0119449	3/27/19			Calithera Biosciences, Inc.	Arginase 1568	Published	10/28/36
CBH-030R1	AR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P220101961	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-030R1	AU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017382406	12/22/17	AU2017382406A1	6/27/19	2017382406	3/31/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	AU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	20212201602	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-030R1	BR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	BR112019012589-2	12/22/17	BR112019012589A2	11/19/19	BR112019012589	11/29/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	BR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	BR112020015566-2	10/28/17					Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-030R1	CA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	3046987	12/22/17	3046987	6/28/18			Calithera Biosciences, Inc.	Arginase 1568	Published	12/22/37
CBH-030R1	CL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1711-2019	12/22/17	CL2019001711A1	1/17/20	65,966	10/12/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	CN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017800080368.1	12/22/17	110382508	10/26/19	ZL2017800080368.1	8/2/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	CN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	202210836865.0	12/22/17	114893205	9/18/22			Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-030R1	CO	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	NC20180007839	12/22/17	CO2018007839A2	10/21/19	NC20180007839	10/29/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	CR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2018360308	10/28/17	CR20180308000	3/6/21			Calithera Biosciences, Inc.	Arginase 1568	Abandoned	10/28/36
CBH-030R1	EA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17	201991517	12/30/19	038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-AM	AM	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-AZ	AZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-BY	BY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-KG	KG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-KZ	KZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-RU	RU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-TJ	TJ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-TM	TM	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201991517	12/22/17			038517	9/9/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1	EA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	202191495	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	10/28/36
CBH-030R1	EC	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	BENAD-2019-45511	12/22/17	ECIP19045511A	10/31/19			Calithera Biosciences, Inc.	Arginase 1568	Published	10/28/36
CBH-030R1	EP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-AI	AI	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-AL	AL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-AT	AT	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-BA	BA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-BE	BE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-BG	BG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-CH	CH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-CY	CY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-CZ	CZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-DE	DE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37
CBH-030R1-DK	DK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/22/37

Calithera Initials *SW*

PPI Initials *UM*

# Annex 1 to Patent Assignment Agreement from Calithera to PPI Assigned Patents (consists of 8 pages -- Page 54 of 8)

Calithera Pat. No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignee	Project	Application Status	Expiration Date
CBH-030E1-EE	EE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-ES	ES	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-FI	FI	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-FK	FK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-FR	FR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-GB	GB	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-HK	HK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-GG	GG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SR	SR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-GY	GY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-HR	HR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-HU	HU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-IE	IE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-IS	IS	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-IT	IT	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-LT	LT	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-LU	LU	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-LV	LV	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-MA	MA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-MC	MC	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-MD	MD	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-ME	ME	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-MK	MK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-MT	MT	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-NL	NL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-NO	NO	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-PL	PL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-PT	PT	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-RO	RO	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-RS	RS	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SE	SE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SI	SI	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SK	SK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SL	SL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-SM	SM	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-TN	TN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-TR	TR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-VG	VG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1782957.7	12/22/17	3590009	10/3/19	3590009	4/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030E1-VI	VI	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2119864.9	12/22/17	384342	6/30/21			Calithera Biosciences, Inc.	Arginase	Allowed	12/23/37
CBH-030H1	HK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	6202001861.8	12/22/17	40011974 A	6/17/20	40011974 B	7/23/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030H2	HK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	42021045089	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	12/23/37
CBH-030I1	SI	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	750201939887	12/22/17	301900448	6/6/19	CBH030I1-19	5/9/23	Calithera Biosciences, Inc.	Arginase 1568	Allowed	12/23/37
CBH-030I0V1	ID	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P0002214432	12/22/17					Calithera Biosciences, Inc.	Arginase	Pending	
CBH-030L1	IL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	267532	12/22/17			267532	9/2/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030LDV1	IL	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	292577	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	
CBH-030N1	IN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201917028932	12/22/17	201917029352 A	10/1/19	411082	11/9/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030P1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2019-034159	12/22/17	JP201914271A	6/21/20	7019849	3/3/22	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030P0V1	JP	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2020-073021	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030R1	KR	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10-2019-1021468	12/22/17	KR20190119578A	10/22/19			Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030L1	LK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	20566	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	
CBH-030LDV1	LK	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	22268	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	
CBH-030M1	MX	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	MX/2019/007471	12/22/17	MX2019007471A	12/1/19	378460	12/16/20	Calithera Biosciences, Inc.	Arginase	Granted	12/23/37
CBH-030M0V1	MX	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	MX/2020/003460	12/22/17	MX2020003460A	2/2/2021			Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030M1	MY	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	P2019003368	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	
CBH-030N1	NZ	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	764364	12/22/17					Calithera Biosciences, Inc.	Arginase 1568	Pending	
CBH-030P1	PE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1311-2018	12/22/17	2018-3841	5/9/19			Calithera Biosciences, Inc.	Arginase	Allowed	
CBH-030P1	PH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2019-501396	12/22/17	PH1201901396A1	12/2/19			Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030S1	PG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	112019052392	12/22/17			112019052392	9/7/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030S1V1	PG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10201911243W	12/22/17	PG10201911243W	3/27/20			Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030S1V2	PG	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	10201911243P	12/22/17	PG10201911243P	3/27/20			Calithera Biosciences, Inc.	Arginase	Published	
CBH-030TH1	TH	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1901003026	12/22/17					Calithera Biosciences, Inc.	Arginase	Pending	
CBH-030TW1	TW	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	19014540	12/22/17	201828948	8/16/18			Calithera Biosciences, Inc.	Arginase 1568	Published	
CBH-030UA1	UA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	a201908476	12/22/17			124711	11/3/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030UADV1	UA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	u202104883	12/22/17					Calithera Biosciences, Inc.	Arginase	Pending	
CBH-030US1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	15/63310	12/22/17	2018-022206	8/9/18	10287303	5/14/19	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030USCON1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16/702186	2/14/20	2020-033967	10/2/20	11021496	6/1/21	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030USCON2	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	17/153904	10/2/21	2021-0261973	8/26/21			Calithera Biosciences, Inc.	Arginase	Pending	
CBH-030USV1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	16/378957	3/29/19	2019-033024	10/3/19	10697111	3/24/20	Calithera Biosciences, Inc.	Arginase 1568	Granted	12/23/37
CBH-030USP1	US	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	60/38098	9/22/18					Calithera Biosciences, Inc.	Arginase	Expired	12/23/14

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# Annex 1 to Patent Assignment Agreement from Calithera to PPI Assigned Patents (consists of 8 pages -- Page 55 of 8)

Calithera Pat. No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignor	Project	Application Status	Expiration Date
CBH-030V1	VE	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	2017-003496	12/22/17		6/14/19			Calithera Biosciences, Inc.	Arginase 158	Published	
CBH-030V1	VN	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	1-2019-03082	12/22/17		11/25/19			Calithera Biosciences, Inc.	Arginase 158	Abandoned	
CBH-030V3	WO	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	PCT/US17/06907	12/22/17	WO 2019/13440	6/28/19			Calithera Biosciences, Inc.	Arginase	Copied	
CBH-030Z1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	201804781	12/22/17					Calithera Biosciences, Inc.	Arginase	Pending	12/22/17
CBH-030ZADV1	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	202006429	12/22/17					Calithera Biosciences, Inc.	Arginase 158	Pending	12/22/17
CBH-030ZADV2	ZA	COMPOSITIONS AND METHODS FOR INHIBITING ARGINASE ACTIVITY	202209514	12/22/17					Calithera Biosciences, Inc.	Arginase 158	Pending	12/22/17
CBH-036A1	AL	ARGINASE INHIBITOR COMBINATION THERAPIES	3842879	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CA1	CA	ARGINASE INHIBITOR COMBINATION THERAPIES	3842879	11/8/17	3443575	9/17/19			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	CN	ARGINASE INHIBITOR COMBINATION THERAPIES	20178001688	11/8/17	CN 110362268 A	10/18/19			Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CA1	CA	ARGINASE INHIBITOR COMBINATION THERAPIES	201981132	11/8/17	287991135	11/28/19			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	CH	ARGINASE INHIBITOR COMBINATION THERAPIES	178192882	10/8/17	8339111	6/18/19	3339111	10/22/19	Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CH1	HR	ARGINASE INHIBITOR COMBINATION THERAPIES	181120912	11/8/17	HR4300784	6/20/20			Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CH1	IL	ARGINASE INHIBITOR COMBINATION THERAPIES	286534	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CH1	JP	ARGINASE INHIBITOR COMBINATION THERAPIES	2019-041887	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CH1	KR	ARGINASE INHIBITOR COMBINATION THERAPIES	10-2019-095933	10/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-036CH1	MX	ARGINASE INHIBITOR COMBINATION THERAPIES	066020/19/005402	11/8/17		11/4/20			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	NO	ARGINASE INHIBITOR COMBINATION THERAPIES	2019002061	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	PL	ARGINASE INHIBITOR COMBINATION THERAPIES	734373	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	RU	ARGINASE INHIBITOR COMBINATION THERAPIES	1-2019-041913	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	SE	ARGINASE INHIBITOR COMBINATION THERAPIES	11379828675	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	TH	ARGINASE INHIBITOR COMBINATION THERAPIES	100188887	11/8/17	201900088	6/16/19			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036CH1	US	ARGINASE INHIBITOR COMBINATION THERAPIES	400766925	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036US1	US	ARGINASE INHIBITOR COMBINATION THERAPIES	15/807357	11/8/17	0161349	6/14/19	11,291,674	4/5/22	Calithera Biosciences, Inc.	Arginase	Granted	7/22/38
CBH-040EP1	US	ARGINASE INHIBITOR COMBINATION THERAPIES	40145067	11/8/18					Calithera Biosciences, Inc.	Arginase	Granted	11/8/18
CBH-040EP2	JP	ARGINASE INHIBITOR COMBINATION THERAPIES	40145067	9/5/17					Calithera Biosciences, Inc.	Arginase	Copied	9/5/18
CBH-036V1	VN	ARGINASE INHIBITOR COMBINATION THERAPIES	1-2019-03082	10/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-036V3	WO	ARGINASE INHIBITOR COMBINATION THERAPIES	PCT/US17/06906	11/8/17	WO/2019/06906	9/17/19			Calithera Biosciences, Inc.	Arginase	Copied	
CBH-040Z1	ZA	ARGINASE INHIBITOR COMBINATION THERAPIES	201908866	11/8/17					Calithera Biosciences, Inc.	Arginase	Abandoned	11/8/17
CBH-041CA1	AL	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	301528373	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	9/5/18
CBH-041CH1	CH	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	BR11014883302-6	9/5/18	BR112019023692-5	6/20/20			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041CA1	CA	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	3042861	9/5/18	3042861	11/19/19			Calithera Biosciences, Inc.	Arginase	Pending	
CBH-041CH1	CL	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	2018-3212	9/5/18		2/1/20			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041CH1	CN	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	201800019473	9/5/18	CN 110198888 A	1/11/20			Calithera Biosciences, Inc.	Arginase	Abandoned	9/5/18
CBH-041CH1	CO	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	NC20190013903	9/5/18		4/1/20			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041CH1	CR	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	2018-002	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041CA1	CA	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	201900088	9/5/18	201900088	9/5/20			Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041EP1	EP	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18	3621954	3/18/20	3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041EP1-CH	CH	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18			3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041EP1-DE	DE	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18			3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041EP1-FR	FR	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18			3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041EP1-GB	GB	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18			3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041EP1-IE	IE	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	1872797.0	9/5/18			3621954	3/9/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041HK1	HK	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	62020016362.9	9/5/18	40026906	18/21	40026906	8/29/22	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041CH1	JO	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	00009391134	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041L1	IL	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	270960	9/5/18			270960	4/1/21	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041LDIV1	IL	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	278757	9/5/18			278757	12/1/21	Calithera Biosciences, Inc.	Arginase	Granted	9/11/38
CBH-041LBP2	L	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	286288	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	
CBH-041NI1	IN	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	201917051392	9/5/18	201917051392 A	12/4/20			Calithera Biosciences, Inc.	Arginase	Published	
CBH-041JP1	JP	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	2019-081219	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	9/5/18
CBH-041KOR1	KR	METHOD OF PREPARING (R)-4-(3-ACETAMIDO-4-ALLYL-N-TERT-BUTYL-PYRROLIDINE-3-CARBOXYAMIDE	10-2019-008885	9/5/18					Calithera Biosciences, Inc.	Arginase	Abandoned	

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CORRIGS REF. No.	Country	Title	Application Number	Filing Date	Publication Number	Publication Date	Patent Number	Issue Date	Assignee	Project	Applicant Status	Expiration Date
CBH-041501	UK	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	2004	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041505	MX	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	AMX/2018/00003	9/1/18		9/1/18			Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041507	MX	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	CEM/0000000	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041521	MX	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	738891	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	9/1/38
CBH-041521	MX	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	2395-2019	9/1/18		2/1/20			Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041541	MX	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	1-2019-032886	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041551	SG	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	11201910233X	9/1/18		11/201910233X		11/15/21	Calithera BioSciences, Inc.	Agribase	Granted	9/1/38
CBH-041553P1	JP	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	1093912840	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041571	IN	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	1801007065	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041591	WV	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	19715048	9/1/18	20190609	9/1/19			Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041611	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	620181186	9/1/18					Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041611	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	15977948	9/1/18	2018-0362459	12/2/18	10494339	12/3/19	Calithera BioSciences, Inc.	Agribase	Granted	9/1/38
CBH-041615DIV1	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	16687394	11/18/19	2020-0087255	3/19/20	10066872	2/2/21	Calithera BioSciences, Inc.	Agribase	Granted	9/1/38
CBH-041615DIV1CON1	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	17164825	2/1/21	2021-0155589	9/27/21	11378754	6/28/22	Calithera BioSciences, Inc.	Agribase	Granted	9/1/38
CBH-041631	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	62162630	9/1/20					Calithera BioSciences, Inc.	Agribase	Expired	
CBH-041631	IN	AMINE COMPOUND AND PROCESS OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	1-2018-06897	9/1/18	0888	2/20/20			Calithera BioSciences, Inc.	Agribase	Abandoned	
CBH-041631	WV	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	1010361913447	9/1/18	VE030808080	11/15/18			Calithera BioSciences, Inc.	Agribase	Expired	
CBH-041631	US	METHOD OF PREPARING (3R,4S)-3-ACETAMIDO-4-ALLYL-N-TERP-BUTYLPIPERIDINE-3-CARBOXAMIDE	201882307	9/1/18		201903607		11/25/20	Calithera BioSciences, Inc.	Agribase	Abandoned	9/1/38

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