# 503454058 08/26/2015

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3500683

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
LESLIE ANN GREENE		07/11/2013
KYLE P. CHIANG		07/11/2013
FEI HONG		07/11/2013
		07/10/0010

JEFFRY D. WATKINS 07	
JEFFRT D. WATKINS	07/22/2013
CHERYL L. QUINN 07	07/22/2013
JOHN D. MENDLEIN 07	07/11/2013

### **RECEIVING PARTY DATA**

Name:	ATYR PHARMA, INC.
Street Address:	3545 JOHN HOPKINS COURT
Internal Address:	SUITE #250
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14687760

#### CORRESPONDENCE DATA

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		e-mail address first; if that is unsuccessful, it will be sent at is unsuccessful, it will be sent via US Mail.
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Address Line 1:	1299	PENNSYLVANIA, SUITE 700
Address Line 2:	PATE	NT DEPARTMENT/ATTN: MARK ROGEL
Address Line 4:	WASI	HINGTON, D.C. 20004
ATTORNEY DOCKET NUMBER		ATYR-065/02US 315789-2501
NAME OF SUBMITTER:		MARK E. ROGEL
SIGNATURE:		/Mark E. Rogel/

DATE SIGNED:	08/26/2015				
Total Attachments: 11					
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#### WHEREAS,

Leslie Ann Greene	13941 Davenport Avenue, San Diego, California 92129;	
Kyle P. Chiang	1615 Debann Road, Cardiff, California 92007;	
Fei Hong	12646 Spindletop Road, San Diego, California 92129;	
Alain Philippe Vasserot	6421 La Paloma Street, Carlsbad, California 92009;	
Jeffry D. Watkins	3442 Fortuna Ranch Road, Encinitas, California 92024;	
Cheryl L. Quinn	408 N. 1st Street, # 706, Minneapolis, Minnesota 55401; and	
John D. Mendlein	1550 Neptune Avenue, Encinitas, California 92024	

(each referred to as "Assignor") have made invention(s) (the "Invention(s)") set forth in applications for patent of the United States, which are:

Application No.	Title	International Filing Date
PCT/US2011/033988 13/643,755	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF CYSTEINYL- tRNA SYNTHETASE	April 26, 2011
PCT/US2011/034205 13/643,738	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF ISOLEUCYL TRNA SYNTHETASES	April 27, 2011
PCT/US2011/034207 13/643,750	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF THREONYL- TRNA SYNTHETASES	April 27, 2011
PCT/US2011/034387 13/643,753	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF ALANYL- TRNA SYNTHETASES	April 28, 2011
PCT/US2011/034388 13/643,745	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF ASPARAGINYL TRNA SYNTHETASES	April 28, 2011
PCT/US2011/034626 13/695,229	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF VALYL- TRNA SYNTHETASES	April 29, 2011
PCT/US2011/034838 13/696,042	INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED PROTEIN FRAGMENTS OF ARGINYL- TRNA SYNTHETASES	May 2, 2011

	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/035056 13/696,044	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	May 3, 2011	
	RELATED TO PROTEIN FRAGMENTS OF	1900 3, 2011	
	METHIONYL-TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/035053	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	May 3, 2011	
13/696,046	RELATED TO PROTEIN FRAGMENTS OF	141ay 5, 2011	
	PHENYLALANYL-ALPHA-TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/034840	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	May 2, 2011	
13/696,047	RELATED TO PROTEIN FRAGMENTS OF SERVL-	Widy 2, 2011	
	TRNA SYNTHETASES		
~~~~~~	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/035250	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	May 4, 2011	
13/696.048	RELATED TO PROTEIN FRAGMENTS OF	Wiay 4, 2011	
	GLUTAMYL-PROLYL-TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/036684	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	No. 16 2011	
13/698,577	RELATED TO PROTEIN FRAGMENTS OF LEUCYL-	May 16, 2011	
<i>.</i>	TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/038240	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	NEW 26 2011	
13/700,410	RELATED TO PROTEIN FRAGMENTS OF	May 26, 2011	
10/11/09/110	GLUTAMINYL-TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,		
PCT/US2011/038813	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	5	
13/700,998	RELATED TO PROTEIN FRAGMENTS OF LYSYL-	June 1, 2011	
	TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC.	1	
PCT/US2011/036326	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	10 10 0011	
13/697,996	RELATED TO PROTEIN FRAGMENTS OF	May 12, 2011	
	PHENYLALANYL-BETA-TRNA SYNTHETASES		
	INNOVATIVE DISCOVERY OF THERAPEUTIC,	Ī	
PCT/US2011/035251	DIAGNOSTIC, AND ANTIBODY COMPOSITIONS	20 1 0000	
13/696,049	RELATED TO PROTEIN FRAGMENTS OF P38 MULTI-	May 4, 2011	
	TRNA SYNTHETASE COMPLEX		

WHEREAS, aTyr Pharma, Inc., having its principal place of business at 3545 John Hopkins Court, Suite #250, San Diego, California 92121 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Inventions; the applications for patent identified in the table above; the right to file applications for patent of the United States or other countries on the Inventions; any applications for patent of the United States or other countries claiming priority to these applications; any provisionals or other right to recover damages, including royalties, for prior infringements of these applications; and any patent of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

(a) the Invention(s);

(b) the applications for patent identified in the table above;

(c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;

(d) any application(s) for patent of the United States or other countries claiming the Invention(s);

(e) any application(s) for patent of the United States or other countries claiming priority to the applications for patent identified in the table above or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and

(f) any provisionals or other right to recover damages, including royalties, for prior infringements of any applications for patent identified in the preceding paragraphs (b)-(e); and

(g) any patent(s) of the United States or other countries that may be granted for or on any applications for patent identified in the preceding paragraphs (b) – (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignor, its successors, legal representatives, and

assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: 1/11/2013 By: Leslie Añn Greene

I certify that I know or have satisfactory evidence that Leslie Ann Greene signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date 7/1//3 Signed at 35/5 Ohn 140kers Cf(Type or Print) Signed at 35/5 Ohn 140kers CfSUINC 750Son 01690, CA 93161(Type or Print Name of Witness) (Signature of Witness)

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Ву: \_\_\_\_\_ Date: 7/11/2013 Chiang

I certify that I know or have satisfactory evidence that Kyle P. Chiang signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

(Type or Print Name of Witness) (Signature of Witness)

<u>7-11-2013</u> By: Date: Fei Hong

I certify that I know or have satisfactory evidence that Fei Hong signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date 7/11/13 (Type or Print) Signed at 3545 John Hopkinst dt (Type or Print Name of Witness) Bonne Alexander (Signature of Witness)



I certify that I know or have satisfactory evidence that Alain Philippe Vasseant signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date <u>1/12/13</u> (Type or Print) Signed at <u>3545 JOhn H</u> San Drego

Dhnue, Alexa (Type or Print Name of Witness)

Bonne Alexander (Signature of Witness)

PATENT REEL: 036430 FRAME: 0534

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Date: July 22, 2013 By: Jeffry D. Watkins

I certify that I know or have satisfactory evidence that Jeffry D. Watkins signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date <u>1/22/13</u> (Type or Print) Signed at <u>354 x John Hockers Ct</u> Son Grego CA 92121 Borne Hela Witness) (Type or Print Name of Witness)

Date: 22 July 2013 By: Cur L. Cheryl L. Quinn

I certify that I know or have satisfactory evidence that Cheryl L. Quinn signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date 22 July 2013 Signed at 408 N 12 St# 706, Minneapplis Mal

Robert J Buck

(Type or Print Name of Witness)

Koburt 1B

Signature of Wilfness)

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Date: 7/11/13 By: John D. Mendlein

I certify that I know or have satisfactory evidence that John D. Mendlein signed this instrument of his/her own free will, as a voluntary act for the uses and purposes mentioned in the instrument.

Date <u>7////13</u> Signed at <u>3545 Ohn Mapkins</u> <del>J</del> (Type or Print) Signed at <u>3545 Ohn Mapkins</u> <del>J</del> <u>Ronne Alexander Ronne Alexander</u> (Type or Print Name of Witness) (Signature of Witness)

**RECORDED: 08/26/2015**