#### 505507655 06/04/2019

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5554459

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	EXECUTIVE ORDER 9424, CONFIRMATORY LICENSE

#### **CONVEYING PARTY DATA**

Name	Execution Date
UNIVERSITY OF PITTSBURGH	05/31/2019

#### **RECEIVING PARTY DATA**

Name:	NATIONAL INSTITUTES OF HEALTH - DIRECTOR DEITR
Street Address:	6705 ROCKLEDGE DRIVE
Internal Address:	SUITE 310
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20892-7980

#### **PROPERTY NUMBERS Total: 10**

Property Type	Number
Application Number:	62011228
Application Number:	10873024
Application Number:	60970856
Application Number:	13129711
Application Number:	14374199
Application Number:	13955941
Application Number:	13432227
Application Number:	13223169
Application Number:	61057131
Application Number:	13885391

#### **CORRESPONDENCE DATA**

Fax Number:

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:** 412-648-2203

**Email:** ogavrilovic@innovation.pitt.edu

Correspondent Name: OLIVERA GAVRILOVIC

Address Line 1: 200 GARDNER STEEL CONFERENCE CENTER

Address Line 2: THACKERAY AND O'HARA STREETS
Address Line 4: PITTSBURGH, PENNSYLVANIA 15260

505507655 REEL: 049362 FRAME: 0170

PATENT

NAME OF SUBMITTER:	OLIVERA GAVRILOVIC	
SIGNATURE:	/Olivera Gavrilovic/	
DATE SIGNED:	06/04/2019	
Total Attachments: 10		
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PATENT REEL: 049362 FRAME: 0171

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**Executive Order 9424: Government Support License (Government Support Clause)** 

Inventi	on title:	PolarEyes Vie	wer			
Invento	or(s): Kira I	₋anthrop, Steve	n W. Sargent. I	an Aleiandro	Sigal	
U.S. Fili	ng/Issue Da	• -		a,	9	
Patent	or Applicat	ion Serial No:	62/011,228			
Grant/0	Contract Nu	mber(s):	EY008098			
Foreign	Application	ns filed/intende	d in (countries	):	44.54	
Patent include	Rights Claus d among th	se at <b>37 CFR 40</b> 3	<b>1.14, FAR 52.2</b> 2 above identifie	27-11 or FAR	5 U.S.C. 200, et seq., and the Standar 52.227-12 (if applicable) which are ntract award from the United States	d
1.	As required	d by 37 CFR 401	L.14 (f) (2) and	Executive Or	der 9424:	
	EY008098		warded by the		nder <b>Grant/Contract Number(s)</b> titutes of Health. The government h	as
2.			•		n of the above identified grant/contr le to the award.	act
The Go	vernment is	s hereby grante	d an irrevocabl	e power to ir	nspect and make copies of the above	-
identifi	ed patent a	pplication.				
Signed	this3	1 <sub>st</sub> da	y of	May	_ 201 <u>9</u> .	
By:	Institution	ner, Ph.D., MBA al Business Off		ame and Title	- 9	
Signati	176E40B.,.		·			
		ovation Institu r Innovation ar		<u>rship</u>		
For	University (	of Pittsburgh	nization	1.74.4		

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260

**Business Address** 

PATENT

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Executive Order 9424: Government Support License (Government Support Clause)
Invention title: Smart Power Assistance Module for Manual Wheelchairs
Inventor(s): Rich Callaghan Simpson
U.S. Filing/Issue Date: 06/21/2004 / 04/17/2007
Patent or Application Serial No: 10/873,024
Grant/Contract Number(s): EY014490
Foreign Applications filed/intended in (countries):
The invention identified above is a subject invention under <b>35 U.S.C. 200, et seq.</b> , and the Standard Patent Rights Clause at <b>37 CFR 401.14</b> , <b>FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:
This invention was made with government support under <b>Grant/Contract Number(s)</b> <u>FY014490</u> awarded by the National Institutes of Health. The government has certain rights in the invention.
<ol><li>All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.</li></ol>
The Government is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent application.
Signed this 31st day of May 2019.
By:Evan Facher, Ph.D., MBA Institutional Business Official Printed Name and Title —Docusigned by: Evan Facher
Signature 5408
Title <u>Director, Innovation Institute</u> <u>Vice Chancellor for Innovation and Entrepreneurship</u>
For University of Pittsburgh Grantee/Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

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Executive Order 9424: Government Support License (Government Support Clause)
Invention title: Diagnostic and Therapeutic Uses of Augmenter of Liver Regeneration (ALR) in Inflammatory Conditions
Inventor(s): Chandrashekhar R. Gandhi, Thomas Starzi, Yoram Vodovotz
U.S. Filing/Issue Date: 09/07/2007
Patent or Application Serial No: 60/970,856
Grant/Contract Number(s): GM067240
Foreign Applications filed/intended in (countries):
The invention identified above is a subject Invention under 35 U.S.C. 200, et seq., and the Standard Patent Rights Clause at 37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12 (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:
This invention was made with government support under Grant/Contract Number(s)  GM067240 awarded by the National Institutes of Health. The government has certain rights in the invention.  2. All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.
The Government is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent application.
Signed this 31st day of May 2019.
By: Evan Facher, Ph.D., MBA  Institutional Business Official Printed Name and Title Docusigned by:
Evan Jacher
Signaturece408
Title <u>Director, Innovation Institute</u> <u>Vice Chancellor for Innovation and Entrepreneurship</u>
For University of Pittsburgh Grantee/Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260

Business Address PATENT REEL: 049362 FRAME: 0174

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**Executive Order 9424: Government Support License (Government Support Clause)** 

Invention title: Constitutive androstane receptor (CAR) as a therapeutic target for obesity and type 2 diabeter	tes
Inventor(s): Wen Xie, Jie Gao	
U.S. Filing/Issue Date: 05/17/2011	
Patent or Application Serial No: 13/129,711	
Grant/Contract Number(s): ES014626, CA107211, ES012479	
Foreign Applications filed/intended in (countries):	
The invention identified above is a subject Invention under 35 U.S.C. 200, et seq., and the Standard Patent Rights Clause at 37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12 (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:	ŀ
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:	
This invention was made with government support under <b>Grant/Contract Number(s)</b> ES014626,CA107211, ES012479 awarded by the National Institutes of Health. The government had certain rights in the invention.	as
<ol> <li>All other rights acquired by the Government by reason of the above identified grant/contra award and the laws and regulations that are applicable to the award.</li> </ol>	act
The Government is hereby granted an irrevocable power to inspect and make copies of the above-	
identified patent application.	
Signed this <u>31st</u> day of <u>May</u> 201 <u>9</u> .	
By: Evan Facher, Ph.D., MBA Institutional Business Official Printed Name and Title Evan Facher	
Signature:408	
Title <u>Director, Innovation Institute</u> Vice Chancellor for Innovation and Entrepreneurship  For <u>University of Pittsburgh</u> Grantee/Contractor Organization	

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

(Sign and submit this executed document to the United States Patent and Trademark Office – Electronic Patent Assignment System (EPAS) http://epas.uspto.gov)

**Executive Order 9424: Government Support License (Government Support Clause)** 

!	Inventi	ion title:	Cyclooxygenase-de	erived electrophilic keto derivatices of omega-3 fatty acids
İ	Invent	or(s):	Bruce Freeman	
1	U.S. Fil	ing/Issue Da	ate:	07/23/2014
	Patent	t or Applicat	tion Serial No:	14/374,199
•	Grant/	Contract Nu	umber(s):	HL058115, HL064937
!	Foreign	n Applicatio	ns filed/intended in	(countries):
j	Patent include	Rights Clau ed among th	se at <b>37 CFR 401.1</b> 4	bject Invention under <b>35 U.S.C. 200, et seq.</b> , and the Standard <b>I, FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are we identified grant or contract award from the United States matory of:
	1.	As require	ed by 37 CFR 401.14	(f) (2) and Executive Order 9424:
HL05	8115, I	HL064937		government support under <b>Grant/Contract Number(s)</b> rded by the National Institutes of Health. The government has
	2.			ne Government by reason of the above identified grant/contract ations that are applicable to the award.
•	The Go	vernment i	s hereby granted ar	irrevocable power to inspect and make copies of the above-
]	dentif	ied patent a	application.	
:	Signed	this31	stday of	<u>May</u> 201 <u>9</u> .
1	Ву:		her, Ph.D., MBA	
_	DocuSign	ed by:	nal Business Official	Printed Name and Title
- 1	<i>Evan 1</i> Signatu	racher UP <del>O</del> C408		· · · · · · · · · · · · · · · · · · ·
	Vice C	hancellor fo University	novation Institute or Innovation and En of Pittsburgh	
		Grantee/C	Contractor Organiza	ation

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

(Sign and submit this executed document to the United States Patent and Trademark Office – Electronic Patent Assignment System (EPAS) <a href="http://epas.uspto.gov">http://epas.uspto.gov</a>)

Executive Order 9424: Government Support License (Government Support Clause)
Small Molecule Inhibitors of HIV Nef-Src Family Kinase Complexes as Anti-HIV Agents Invention title:
Inventor(s): Thomas E. Smithgall
U.S. Filing/Issue Date: 07/31/2013
Patent or Application Serial No: 13/955,941
Grant/Contract Number(s): Al057083 , CA081398
Foreign Applications filed/intended in (countries):
The invention identified above is a subject Invention under <b>35 U.S.C. 200, et seq.</b> , and the Standard Patent Rights Clause at <b>37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:
This invention was made with government support under <b>Grant/Contract Number(s)</b> Al05 <u>7083, CA081398</u> awarded by the National Institutes of Health. The government has certain rights in the invention.
<ol><li>All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.</li></ol>
The Government is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent application.
Signed this <u>31st</u> day of <u>May</u> 201 <u>9</u> .
By:Evan Facher, Ph.D., MBA Institutional Business Official Printed Name and Title
DocuSigned by:
Evan Facher Signature:ce408
Title <u>Director, Innovation Institute</u> <u>Vice Chancellor for Innovation and Entrepreneurship</u>
For University of Pittsburgh Grantee/Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260

Business Address PATENT

s Address PATENT
REEL: 049362 FRAME: 0<u>177</u>

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Executive Order 9424: Government Support License (Government Support Clause)
Cell Surface Expression on Peripheral CD4 T-cells as Blomarkers
Inventor(s): Steven R. Duncan
U.S. Filing/Issue Date: 03/28/2012
Patent or Application Serial No: 13/432,227
Grant/Contract Number(s): HL073241, HL084932, HL084948
Foreign Applications filed/intended in (countries):
The invention identified above is a subject Invention under <b>35 U.S.C. 200, et seq.</b> , and the Standard Patent Rights Clause at <b>37 CFR 401.14</b> , <b>FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:
This invention was made with government support under Grant/Contract Number(s) HL073241, HL084932 , HL084948 awarded by the National Institutes of Health. The government has certain rights in the invention.
<ol><li>All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.</li></ol>
The Government is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent application.
Signed this <u>31st</u> day of <u>May</u> 201 <u>9</u> .
By:Evan Facher, Ph.D., MBA
Institutional Business Official Printed Name and Title  -Docustyned by:
Evan Facher
Signature:408
Title <u>Director, Innovation Institute</u> Vice Chancellor for Innovation and Entrepreneurship
For <u>University of Pittsburgh</u> Grantee/Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

(Sign and submit this executed document to the United States Patent and Trademark Office -Electronic Patent Assignment System (EPAS) http://epas.uspto.gov)

**Executive Order 9424: Government Support License (Government Support Clause)** 

Invention title:	The identification, selection, and expansion of regulatory B cells through TIM-1
Inventor(s): David	d Mar Rothstein, Qing Ding
U.S. Filing/Issue [	Date: 08/31/2011
Patent or Applica	ation Serial No: 13/223,169
Grant/Contract N	lumber(s): A1070820
Foreign Applicati	ons filed/intended in (countries):
Patent Rights Cla Included among t	entified above is a subject Invention under <b>35 U.S.C. 200, et seq.</b> , and the Standard use at <b>37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are the terms of the above identified grant or contract award from the United States is document is confirmatory of:
1. As requir	ed by 37 CFR 401.14 (f) (2) and Executive Order 9424:
_Al070820	ntion was made with government support under <b>Grant/Contract Number(s)</b> awarded by the National Institutes of Health. The government has ghts in the invention.
	rights acquired by the Government by reason of the above identified grant/contract d the laws and regulations that are applicable to the award.
The Government	is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent	application.
Signed this3	<u>1st</u> <u>day of <u>May</u> 201<u>9</u>.</u>
• "	cher, Ph.D., MBA nal Business Official Printed Name and Title
Signature3CE408	
Vice Chancellor for University	novation Institute For Innovation and Entrepreneurship  of Pittsburgh
Grantee/	Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

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Executive Order 9424: Government Support License (Government Support Clause)
Novel Biosensors for Live-Cell Imaging of Insulin Life-Time, Trafficking, and Secretion By the Ins-C-mcTime
Invention title: Fluorescent Biosensors
Inventor(s): Peter Drain
U.S. Filing/Issue Date: 05/29/2009
Patent or Application Serial No: 61/057,131
Grant/Contract Number(s): DK064383
Foreign Applications filed/intended in (countries):
The invention identified above is a subject invention under 35 U.S.C. 200, et seq., and the Standard Patent Rights Clause at 37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12 (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of:
1. As required by 37 CFR 401.14 (f) (2) and Executive Order 9424:
This invention was made with government support under <b>Grant/Contract Number(s)</b> <u>DK064383</u> awarded by the National Institutes of Health. The government has certain rights in the invention.
<ol><li>All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.</li></ol>
The Government is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent application.
Signed this <u>31st</u> day of <u>May</u> 201 <u>9</u> .
By: Evan Facher, Ph.D., MBA  Institutional Business Official Printed Name and Title
Signature Court of the Court of
Title <u>Director, Innovation Institute</u> <u>Vice Chancellor for Innovation and Entrepreneurship</u>
For <u>University of Pittsburgh</u> Grantee/Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260 **PATENT** 

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Executive Order	9424: Government Support License (Government Support Clause)
Invention title:	GS-Nitroxide (JP4-039) in a Novel F15 Formulation is Radiation Protective for the Esophagus Preventing
	Irradiation Esophagitis-
Inventor(s): Pete	r Wipf, Michael W. Epperly, Xiang Gao, Song Li, Joel S. Greenberger
U.S. Filing/Issue [	Date: 05/14/2013
Patent or Applica	ation Serial No: 13/885,391
Grant/Contract N	lumber(s): Al068021, CA083876, GM067082
Foreign Applicati	ons filed/intended in (countries):
Patent Rights Cla included among t	Intified above is a subject Invention under <b>35 U.S.C. 200, et seq.,</b> and the Standard use at <b>37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12</b> (if applicable) which are the terms of the above identified grant or contract award from the United States is document is confirmatory of:
1. As requir	ed by 37 CFR 401.14 (f) (2) and Executive Order 9424:
.1068021, C <u>A083876,</u> certain ri	ntion was made with government support under <b>Grant/Contract Number(s)</b> <u>GM067082</u> awarded by the National Institutes of Health. The government has ghts in the invention.
	rights acquired by the Government by reason of the above identified grant/contract d the laws and regulations that are applicable to the award.
The Government	is hereby granted an irrevocable power to inspect and make copies of the above-
identified patent	application.
Signed this3	<u>1st</u> day of <u>May</u> 201 <u>9</u> .
Institutio  Docusigned by:  Evan Facher	cher, Ph.D., MBA nal Business Official Printed Name and Title
Signature3CE408	
•	novation Institute or Innovation and Entrepreneurship
For University Grantee/	of Pittsburgh Contractor Organization

At 200 Gardner Steel Conference Center Thackeray and O'Hara Streets Pittsburgh, PA 15260

Business Address

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RECORDED: 06/04/2019 REEL: 049362 F

PATENT REEL: 049362 FRAME: 0<u>181</u>