

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3414378

|                                                                                                                                                                                                 |                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                                                                                         |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                                                                                             |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                                                                                        |
| <b>Name</b>                                                                                                                                                                                     | <b>Execution Date</b>                                                                                  |
| RIMAS J. ORENTAS                                                                                                                                                                                | 06/13/2015                                                                                             |
| IRA H. PASTAN                                                                                                                                                                                   | 06/15/2015                                                                                             |
| DIMITER S. DIMITROV                                                                                                                                                                             | 06/23/2015                                                                                             |
| CRYSTAL L. MACKALL                                                                                                                                                                              | 06/11/2015                                                                                             |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                                                                                        |
| <b>Name:</b>                                                                                                                                                                                    | THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES |
| <b>Street Address:</b>                                                                                                                                                                          | OFFICE OF TECHNOLOGY TRANSFER, NATIONAL INSTITUTES OF HEALTH                                           |
| <b>Internal Address:</b>                                                                                                                                                                        | 6011 EXECUTIVE BOULEVARD, SUITE 325, MSC 7660                                                          |
| <b>City:</b>                                                                                                                                                                                    | BETHESDA                                                                                               |
| <b>State/Country:</b>                                                                                                                                                                           | MARYLAND                                                                                               |
| <b>Postal Code:</b>                                                                                                                                                                             | 20892-7660                                                                                             |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                                                                                        |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                                                                                          |
| <b>Application Number:</b>                                                                                                                                                                      | 14437889                                                                                               |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                                                                                        |
| <b>Fax Number:</b>                                                                                                                                                                              | (312)616-5700                                                                                          |
| <i>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.</i> |                                                                                                        |
| <b>Phone:</b>                                                                                                                                                                                   | 312-616-5600                                                                                           |
| <b>Email:</b>                                                                                                                                                                                   | Assignments@leydig.com                                                                                 |
| <b>Correspondent Name:</b>                                                                                                                                                                      | LEYDIG, VOIT & MAYER                                                                                   |
| <b>Address Line 1:</b>                                                                                                                                                                          | TWO PRUDENTIAL PLAZA, SUITE 4900                                                                       |
| <b>Address Line 2:</b>                                                                                                                                                                          | 180 NORTH STETSON AVENUE                                                                               |
| <b>Address Line 4:</b>                                                                                                                                                                          | CHICAGO, ILLINOIS 60601-6731                                                                           |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 719873                                                                                                 |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | STEPHANIE M. LAWLEY                                                                                    |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Stephanie M. Lawley, Reg. No. 55,362/                                                                 |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 06/26/2015                                                                                             |

**Total Attachments: 20**

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**ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA  
(NIH OR FDA OR CDC CO-INVENTORS ONLY)**

**WHEREAS**, we,

1. Rimas J. Orentas, as an employee of the National Institutes of Health,
2. Ira H. Pastan, an employee of the National Institutes of Health,
3. Dimiter S. Dimitrov, an employee of the National Institutes of Health, and
4. Crystal L. Mackall, an employee of the National Institutes of Health,

a component of the United States Department of Health and Human Services having an address at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660, have made certain inventions as described and claimed in:

1. U.S. Patent Application No. 14/437,889, filed April 23, 2015, and which is entitled "M971 CHIMERIC ANTIGEN RECEPTORS"

Herein referred to as "**The Patent Application**"

**WHEREAS**, we are the inventors named in **The Patent Application**; and

**WHEREAS**, the inventions described and claimed in **The Patent Application** were made under conditions such as to entitle **THE UNITED STATES OF AMERICA, as represented by the Secretary, Department of Health and Human Services** [hereinafter **THE GOVERNMENT**] under Executive Order 10096 and its amendments, 35 USC §§200-201, §§206-207, and §210 and 37 CFR Part 501 to the entire right, title, and interest in such inventions; and

**WHEREAS, THE GOVERNMENT** is desirous of acquiring all domestic and foreign right, title, and interest in the inventions described and claimed in **The Patent Application**; and

**NOW, THEREFORE**, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Application** to **THE GOVERNMENT**, having a place of business at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660 and for consideration, the receipt and sufficiency of which are hereby acknowledged, we hereby assign and transfer to **THE GOVERNMENT**:

the entire right, title, and interest in and to any and all inventions described and claimed in **The Patent Application** and any and all Letters Patent(s) which may be granted thereon, and any and all continuations, divisions, reissues or extensions thereof; and

all rights to claim priority on the basis of **The Patent Application** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

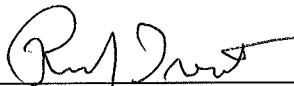
all applications for Letters Patent(s) that may be filed for any and all inventions described and claimed in **The Patent Application** that may be filed in any foreign country and all Letters Patents that may be granted thereon in any foreign country and all extensions, renewals, and reissues thereof; and

any and all such Letters Patents as may be granted in the United States or any foreign country to be held by **THE GOVERNMENT** to the end of the term for which the same would have been held by the inventors had this assignment not been made.

We further agree to make, execute, and deliver to **THE GOVERNMENT**, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist **THE GOVERNMENT** in every way as may be requested in protecting said invention.

**IN WITNESS WHEREOF** we subscribe our hands and seals on the dates shown below:

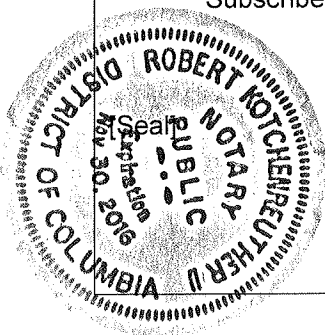
**Inventor 1:**

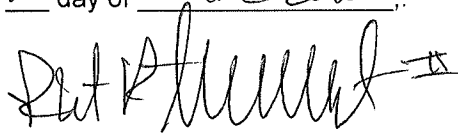
6/13/15                        
Date                                      Rimas J. Orentas

County of N/A                      Ss:

State of District of Columbia

Subscribed and sworn to before me this 13<sup>th</sup> day of June 2015.





Notary Public for District of Columbia

My Commission Expires: 11-30-2016

**Inventor 2:**

\_\_\_\_\_ Date \_\_\_\_\_ Ira H. Pastan

County of \_\_\_\_\_ Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_,

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**Inventor 3:**

\_\_\_\_\_  
Date Dimiter S. Dimitrov

County of \_\_\_\_\_  
Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_,

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

**Inventor 4:**

\_\_\_\_\_ Date \_\_\_\_\_ Crystal L. Mackall

County of \_\_\_\_\_ Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_.

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

**ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA  
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all rights to claim priority on the basis of **The Patent Application** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

all applications for Letters Patent(s) that may be filed for any and all inventions described and claimed in **The Patent Application** that may be filed in any foreign country and all Letters Patents that may be granted thereon in any foreign country and all extensions, renewals, and reissues thereof; and

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**IN WITNESS WHEREOF** we subscribe our hands and seals on the dates shown below:

| Inventor 1:                                                  |                              |
|--------------------------------------------------------------|------------------------------|
| _____                                                        | _____                        |
| Date                                                         | Rimas J. Orentas             |
| County of _____                                              | Ss:                          |
| State of _____                                               |                              |
| Subscribed and sworn to before me this ____ day of _____, .. |                              |
| [Seal]                                                       | _____                        |
|                                                              | Notary Public for _____      |
|                                                              | My Commission Expires: _____ |

Inventor 2:

6/15/15  
Date

Ira H. Pastan  
Ira H. Pastan

Date 6/15/15

Patricia B. Grogan  
Witness

Date 6/15/15

Anna M. Mayhew  
Witness

**Inventor 3:**

\_\_\_\_\_ Date \_\_\_\_\_ Dimiter S. Dimitrov

County of \_\_\_\_\_ Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_,

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**Inventor 4:**

\_\_\_\_\_  
Date Crystal L. Mackall

County of \_\_\_\_\_  
Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_.

[Seal]

\_\_\_\_\_  
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|                                                           |                              |
|-----------------------------------------------------------|------------------------------|
| <b>Inventor 1:</b>                                        |                              |
| _____                                                     | _____                        |
| Date                                                      | Rimas J. Orentas             |
| County of _____                                           | Ss:                          |
| State of _____                                            |                              |
| Subscribed and sworn to before me this ____ day of _____. |                              |
| [Seal]                                                    | _____                        |
|                                                           | Notary Public for _____      |
|                                                           | My Commission Expires: _____ |

|                                                           |                              |
|-----------------------------------------------------------|------------------------------|
| <b>Inventor 2:</b>                                        |                              |
|                                                           |                              |
| _____                                                     | _____                        |
| Date                                                      | Ira H. Pastan                |
| County of _____                                           |                              |
|                                                           | Ss:                          |
| State of _____                                            |                              |
| Subscribed and sworn to before me this ____ day of _____. |                              |
| [Seal]                                                    | _____                        |
|                                                           | Notary Public for _____      |
|                                                           | My Commission Expires: _____ |

**Inventor 3:**

6/23/2015  
Date

Dr. S. Dimitrov  
Dimitar S. Dimitrov

County of Frederick Ss:

State of Thailand

Subscribed and sworn to before me this 23 day of June, 2015

[Seal]

Ann E. Rogers  
 Notary Public for Maryland  
 My Commission Expires: 04/11/2019



**Inventor 4:**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Crystal L. Mackall

County of \_\_\_\_\_  
Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_.

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

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|-----------------------------------------------------------|------------------------------------------------------------------|
| <b>Inventor 1:</b>                                        |                                                                  |
| _____                                                     | _____                                                            |
| Date                                                      | Rimas J. Orentas                                                 |
| County of _____ Ss:                                       |                                                                  |
| State of _____                                            |                                                                  |
| Subscribed and sworn to before me this ____ day of _____. |                                                                  |
| [Seal]                                                    | _____<br>Notary Public for _____<br>My Commission Expires: _____ |

**Inventor 2:**

\_\_\_\_\_ Date \_\_\_\_\_ Ira H. Pastan

County of \_\_\_\_\_ Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_,

[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**Inventor 3:**

\_\_\_\_\_ Date \_\_\_\_\_ Dimiter S. Dimitrov

County of \_\_\_\_\_ Ss:

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_.


[Seal]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Inventor 4:

6/11/15  
Date


  
Crystal L. Mackall

County of Montgomery Ss:

State of Maryland

Subscribed and sworn to before me this 11<sup>th</sup> day of June 2015.

[Seal]

  
Notary Public for Maryland  
My Commission Expires: 8/18/2016