

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT5901902

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BRUCE A. SHAPIRO	12/20/2019
MATHIAS D. VIARD	12/20/2019
ECKART H.U. BINDEWALD	12/20/2019
WOJCIECH KASPRZAK	12/20/2019
MARINA A. DOBROVOLSKAIA	11/27/2019
<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>
Application Number:	16500765
<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, LTD.
<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>	744889
<b>NAME OF SUBMITTER:</b>	CHERYL BELCIK
<b>SIGNATURE:</b>	/Cheryl Belcik/

<b>DATE SIGNED:</b>	01/09/2020
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**Total Attachments: 6**

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

**WHEREAS**, we,

1. Bruce A. Shapiro, 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, and

1. Mathias D. Viard, Eckart H.U. Bindewald, Wojciech Kasprzak, and Marina A. Dobrowolskaia, employees of Leidos Biomedical Research, Inc., a subsidiary of Leidos, Inc., a Delaware corporation having a principal place of business at 1050 Boyles Street, Bldg 428, Frederick, MD 21702-1201

have made certain inventions as described and claimed in:

1. U.S. Patent Application No. 16/500,765, filed October 3, 2019, and which is entitled "FUNCTIONALLY-INTERDEPENDENT SHAPE SWITCHING NUCLEIC ACID NANOPARTICLES."

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

**WHEREAS**, we are some of 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 §§200-202, §§206-207, and §210 and 37 CFR Part 501 and 37 CFR Part 401 to our 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**:

our 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

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:

<b>Inventor 1:</b>	
<u>12-20-2019</u> Date	<u>Bruce A. Shapiro</u> Bruce A. Shapiro
County of <u>Frederick</u>	Ss:
State of <u>Maryland</u>	
Subscribed and sworn to before me this <u>20</u> day of <u>December, 2019</u>	
[Seal]	<u>Chau A. Rhoderick</u> Notary Public for <u>Frederick MD</u> My Commission Expires: <u>1-22-2020</u>

**Inventor 2:**

19-20-2019  
Date

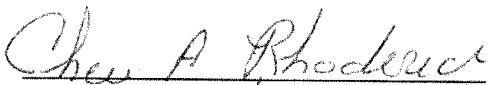
  
Mathias D. Viard

County of Frederick Ss:

State of Maryland

Subscribed and sworn to before me this 20 day of December 2020

[Seal]

  
Notary Public for Frederick, MD  
My Commission Expires: 1-22-2020

Inventor 3:

1-20-2019

Date

Eckart Bindewald

Eckart H. Bindewald

County of

Frederick

Ss:

State of

Maryland

Subscribed and sworn to before me this 20 day of December, 2019

[Seal]

Chris A. Blockman

Notary Public for Frederick, MD

My Commission Expires: 1-22-2020

Inventor 4:

1-20-2019  
Date

Wojciech Kasprzak  
Wojciech Kasprzak

County of Frederick Ss:

State of Maryland

Subscribed and sworn to before me this 20 day of December 2020

[Seal]

Chen A. Rhoderick  
Notary Public for Frederick, MD  
My Commission Expires: 1-22-2020

**Inventor 5:**

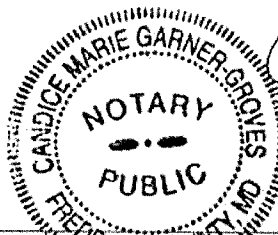
11-27-2019  
Date

*Marina A. Dobrovolskaia*  
Marina A. Dobrovolskaia

County of Frederick Ss:

State of Maryland

Subscribed and sworn to before me this 27<sup>th</sup> day of November, 2019

[Seal] 

*Candice Marie Garner-Groves*  
Notary Public for Frederick County  
My Commission Expires: 1-25-2021

CANDICE MARIE GARNER-GROVES  
NOTARY PUBLIC STATE OF MARYLAND  
My Commission Expires January 25, 2021