504131305 12/09/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4177976

		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DA	ATA			
		Name	Execution Date	
JEREMY N. RICH			12/09/2016	
YOUNGMI KIM			11/30/2016	
ANITA B. HJELMELAND)		12/01/2016	
RECEIVING PARTY DA	ТА			
Name:	THE CL	EVELAND CLINIC FOUNDATION		
Street Address:	9500 E	JCLID AVENUE		
City:	CLEVE	LAND		
State/Country:	оню			
Postal Code:	44195			
PROPERTY NUMBERS Property Type	Total: 1	Number		
Application Number:		14763283		
CORRESPONDENCE D	ΑΤΑ			
Fax Number:		(216)621-4072		
		the e-mail address first; if that is uns ; if that is unsuccessful, it will be sen		
Phone:		216-621-2234		
Email:	Iraines@tarolli.com			
Correspondent Name:	: TAROLLI, SUNDHEIM, COVELL & TUMMINO LLP			
Address Line 1:	1300 EAST NINTH STREET			
Address Line 2: SUITE 1700				
Address Line 4:		CLEVELAND, OHIO 44114		
ATTORNEY DOCKET NUMBER:		CCF-022018 US PCT	CCF-022018 US PCT	
NAME OF SUBMITTER:		RICHARD S. WESORICK	RICHARD S. WESORICK	
SIGNATURE:		/Richard S. Wesorick, Reg. No. 40	/Richard S. Wesorick, Reg. No. 40871/	
DATE SIGNED:		12/09/2016	12/09/2016	
DATE SIGNED:				
DATE SIGNED: Total Attachments: 5				

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ASSIGNMENT

WHEREAS, we, Jeremy N. Rich, Youngmi Kim and Anita B. Hjelmeland; of Cleveland, County of Cuyahoga, and State of Ohio; of Seattle, County of King County, and State of Washington; and of Birmingham, County of Jefferson, and State of Alabama; respectively, have made new and useful improvements in APTAMERS FOR TUMOR INITIATING CELLS for which application for Letters Patent of the United States has been filed on 24 July 2015 under Serial No. 14/763,283;

WHEREAS, The Cleveland Clinic Foundation (hereinafter "CCF"), a tax-exempt organization duly organized and existing under the laws of the State of Ohio, having a place of business at Cleveland, County of Cuyahoga, State of Ohio, is desirous of acquiring the entire right, title and interest in and to the said improvements and all patents therefor to be obtained in the United States of America and countries foreign to the United States;

NOW THEREFORE, BE IT KNOWN that, pursuant to CCF's Invention and Discovery Policy as specified in the CCF "Yellow Book" as of this date and for valuable considerations to us paid, the receipt whereof is hereby acknowledged, we, said Jeremy N. Rich, Youngmi Kim and Anita B. Hielmeland, do hereby assign, sell and set over unto the said CCF, its successors or assigns, the entire right, title and interest in and to the said improvements and any and all inventions pertaining thereto, said application Serial No. 14/763,283, for the United States patent, all patents granted therefore in the United States of America and elsewhere, and the right to apply for patents therefore in all countries foreign to the United States and to claim for such applications the priority of United States applications, and we hereby request the Commissioner of Patents of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue patents, to issue such patents to the said CCF, its successors or assigns; and we further agree to execute such other applications and other instruments and do all other acts as may be deemed necessary by the said CCF, its successors or assigns in order to fully secure, protect and preserve its rights to the said improvements and to obtain patents therefor in the United States of America and all countries foreign to the United States, all without further consideration but at the expense of the said CCF, its successors or assigns.

Signed at Cleveland, OH County of Cary phoga. This	and State of OFTO
This '9 0	and State of OF#D day of December , 2016.
	Serenze Mo_
	Jeremy N. Rich
STATE OF Child	$)^{\vee}$
COUNTY OF CUY aboger)
On this 9	, day of December, 2016.

Personally appeared before me Jeremy N, Rich to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.



ynthia E. Garber-Nugent	4
Notary Public	(<i>J</i> .e.
State of Ohio	
My Comm. Exp. July 30,	2017

Notary Public

PATENT REEL: 040961 FRAME: 0338

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ASSIGNMENT

WHEREAS, we, Jeremy N. Rich, Youngmi Kim and Anita B. Hjelmeland; of Cleveland, County of Cuyahoga, and State of Ohio; of Seattle, County of King County, and State of Washington; and of Birmingham, County of Jefferson, and State of Alabama; respectively, have made new and useful improvements in APTAMERS FOR TUMOR INITIATING CELLS for which application for Letters Patent of the United States has been filed on 24 July 2015 under Serial No. 14/763,283;

WHEREAS, The Cleveland Clinic Foundation (hereinafter "CCF"), a tax-exempt organization duly organized and existing under the laws of the State of Ohio, having a place of business at Cleveland, County of Cuyahoga, State of Ohio, is desirous of acquiring the entire right, title and interest in and to the said improvements and all patents therefor to be obtained in the United States of America and countries foreign to the United States;

NOW THEREFORE, BE IT KNOWN that, pursuant to CCF's Invention and Discovery Policy as specified in the CCF "Yellow Book" as of this date and for valuable considerations to us paid, the receipt whereof is hereby acknowledged, we, said Jeremy N. Rich, Youngmi Kim and Anita B. Hjelmeland, do hereby assign, sell and set over unto the said CCF, its successors or assigns, the entire right, title and interest in and to the said improvements and any and all inventions pertaining thereto, said application Serial No. 14/763,283, for the United States patent, all patents granted therefore in the United States of America and elsewhere, and the right to apply for patents therefore in all countries foreign to the United States and to claim for such applications the priority of United States applications, and we hereby request the Commissioner of Patents of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue patents, to issue such patents to the said CCF, its successors or assigns; and we further agree to execute such other applications and other instruments and do all other acts as may be deemed necessary by the said CCF, its successors or assigns in order to fully secure, protect and preserve its rights to the said improvements and to obtain patents therefor in the United States of America and all countries foreign to the United States, all without further consideration but at the expense of the said CCF, its successors or assigns.

County of		and State of	
This	day of	, 2016.	
		Jeremy N. Rich	
STATE OF)		
COUNTY OF)		
On this	day of	, 2016.	

Personally appeared before me Jeremy N. Rich to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.

Notary Public

CCF-022018 US PCT



Personally appeared before me **Youngmi Kim** to me known to be the person named in and who executed the above instrument, and acknowledged to me that she executed the same for the uses and the purposes therein mentioned.

Notary Public State of Washington CATHY LIN My Appointment Expires Jan 16, 2020	•	Notary Public
Signed at County of This	day of	and State of , 2016.
		Anita B. Hjelmeland
STATE OF)	
COUNTY OF)	
On this	day of	, 2016.

Personally appeared before me Anita B. Hjelmeland to me known to be the person named in and who executed the above instrument, and acknowledged to me that she executed the same for the uses and the purposes therein mentioned.

Notary Public

PATENT REEL: 040961 FRAME: 0340

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14026-03

ASSIGNMENT

WHEREAS, we, Jeremy N. Rich, Youngmi Kim and Anita B. Hjelmeland; of Cleveland, County of Cuyahoga, and State of Ohio; of Seattle, County of King County, and State of Washington; and of Birmingham, County of Jefferson, and State of Alabama; respectively, have made new and useful improvements in APTAMERS FOR TUMOR INITIATING CELLS for which application for Letters Patent of the United States has been filed on 24 July 2015 under Serial No. 14/763,283;

WHEREAS, The Cleveland Clinic Foundation (hereinafter "CCF"), a taxexempt organization duly organized and existing under the laws of the State of Ohio, having a place of business at Cleveland, County of Cuyahoga, State of Ohio, is desirous of acquiring the entire right, title and interest in and to the said improvements and all patents therefor to be obtained in the United States of America and countries foreign to the United States;

NOW THEREFORE, BE IT KNOWN that, pursuant to CCF's Invention and Discovery Policy as specified in the CCF "Yellow Book" as of this date and for valuable considerations to us paid, the receipt whereof is hereby acknowledged, we, said Jeremy N. Rich, Youngmi Kim and Anita B. Hjelmeland, do hereby assign, sell and set over unto the said CCF, its successors or assigns, the entire right, title and interest in and to the said improvements and any and all inventions pertaining thereto, said application Serial No. 14/763,283, for the United States patent, all patents granted therefore in the United States of America and elsewhere, and the right to apply for patents therefore in all countries foreign to the United States and to claim for such applications the priority of United States applications, and we hereby request the Commissioner of Patents of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue patents, to issue such patents to the said CCF, its successors or assigns; and we further agree to execute such other applications and other instruments and do all other acts as may be deemed necessary by the said CCF, its successors or assigns in order to fully secure, protect and preserve its rights to the said improvements and to obtain patents therefor in the United States of America and all countries foreign to the United States, all without further consideration but at the expense of the said CCF, its successors or assigns.

Signed at County of	and State of		
This	day of	, 2016.	
	J	eremy N. Rich	
STATE OF)		
COUNTY OF)		
On this	day of	, 2016.	

Personally appeared before me Jeremy N. Rich to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.

Notary Public

PATENT REEL: 040961 FRAME: 0341

CCF-022018 US PCT	14026-03	
Signed at County of		and State of
This	day of	, 2016.
	Youngmi Kim	
STATE OF)	
COUNTY OF	ý	
On this	day of	, 2016.

Personally appeared before me Youngmi Kim to me known to be the person named in and who executed the above instrument, and acknowledged to me that she executed the same for the uses and the purposes therein mentioned.

Notary Public

Signed at REGIDAS Bark County of Jefferson This 1st December, 2016. day of ta B. Halad STATE OF ALABAMA COUNTY OF Jefferson))) day of December, 2016. 15+ On this

Personally appeared before me Anita B. Hjelmeland to me known to be the person named in and who executed the above instrument, and acknowledged to me that she executed the same for the uses and the purposes therein mentioned. MY COMMISSION CAPTINES FEBRUARY 25, 2020

Notary Public