504851200 04/03/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY DA	ΑΤΑ				
		Name	Execution Date		
CARLOS LOIS-CABALL	E		11/02/2002		
DAVID BALTIMORE			11/02/2002		
XIAO-FENG QIN			11/08/2002		
RECEIVING PARTY DA	TA				
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Internal Address:	M/S 201-85				
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State/Country:	CALIFORNIA				
Postal Code:	91125				
	Total: 1		٦		
Property Type		Number			
Application Number:		15944562			
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ATTORNEY DOCKET NUMBER:		CALTE.010C5			
NAME OF SUBMITTER:		JING LIU	JING LIU		
SIGNATURE:		/Jing Liu/	/Jing Liu/		
DATE SIGNED:		04/03/2018			
Total Attachments: 3		I			
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			PATENT		

PATENT REEL: 045428 FRAME: 0544

ASSIGNMENT

WHEREAS, We, Carlos Lois-Caballe, a citizen of Spain, residing at 1821 1/2 Wayne Avenue, South Pasadena, CA 91030, David Baltimore, a U.S. citizen, residing at 415 S. Hill Avenue, Pasadena, CA 91106 and Xiao-Feng Quin, a U.S. citizen, residing at 255 S. Wilson Avenue, Apt. 10, Pasadena, CA 91106, have invented certain new and useful improvements in a METHOD FOR EXPRESSION OF SMALL RNA MOLECULES WITHIN A CELL for which we have filed an application for Letters Patent in the United States, 10/243,816;

AND WHEREAS, California Institute of Technology (hereinafter "ASSIGNEE"), a CA Corporation, with its principal place of business at 1200 E. California Boulevard, M/S 201-85, Pasadena, CA 91125, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

NOW, THEREFORE, in return for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United states on applications as aforesaid, to issue all Letters Patent for said improvements to the States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 2nd day of November, 20_.

25 C'411

Carlos Lois-Caballe

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 20___.

David Baltimore

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 20___.

Xiao-Feng Qin

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> PATENT REEL: 045428 FRAME: 0545

ASSIGNMENT

WHEREAS, We, Carlos Lois-Caballe, a citizen of Spain, residing at 1821 1/2 Wayne Avenue, South Pasadena, CA 91030, David Baltimore, a U.S. citizen, residing at 415 S. Hill Avenue, Pasadena, CA 91106 and Xiao-Feng Quin, a U.S. citizen, residing at 255 S. Wilson Avenue, Apt. 10, Pasadena, CA 91106, have invented certain new and useful improvements in a METHOD FOR EXPRESSION OF SMALL RNA MOLECULES WITHIN A CELL for which we have filed an application for Letters Patent in the United States, 10/243,816;

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IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 20__.

Carlos Lois-Caballe
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10^{-1} day of 10^{-1} , 20^{-2}
ACBUS
David Baltimore
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this day of, 20

Xiao-Feng Qin

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> PATENT REEL: 045428 FRAME: 0546

Application No.: 10/243,816 Filing Date: September 13, 2002 PATENT Client Code: CALTE.010A Page 1

ASSIGNMENT

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IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 20__.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 20___.

Carlos Lois-Caballe

David Baltimore
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 8 day of NHUM hur, 20 gl
Xiao-Feng Qin

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RECORDED: 04/03/2018