502151451 12/05/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Matthew L. Becker	02/10/2006
Huafeng Fang	02/28/2006
Xiaoxu Li	02/28/2006
Dipanjan Pan	02/21/2006
Raffaella Rossin	02/22/2006
Xiankai Sun	02/26/2006
John Stephen Taylor	02/28/2006
Jeffrey L. Turner	02/23/2006
Michael John Welch	02/28/2006
Karen L. Wooley	02/24/2006

RECEIVING PARTY DATA

Name:	Washington University in St. Louis
Street Address:	660 South Euclid
City:	St. Louis
State/Country:	MISSOURI
Postal Code:	63110

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13705682

CORRESPONDENCE DATA

Fax Number: 3146122307

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 314-621-5070

Email: uspatents@armstrongteasdale.com

Correspondent Name: PATRICK W. RASCHE (15060) ARMSTRONG TEAS

Address Line 1: 7700 Forsyth Boulevard

PATENT

REEL: 029411 FRAME: 0050

:H \$40.00 137056

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Address Line 2: **Suite 1800** Address Line 4: St. Louis, MISSOURI 63105 ATTORNEY DOCKET NUMBER: 15060-398 (004487-DIV1/1) NAME OF SUBMITTER: Steven T. Kazmierski Total Attachments: 11 source=004487-DIV1-1 Original Assignment 05DEC2012#page1.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page2.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page3.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page4.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page5.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page6.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page7.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page8.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page9.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page10.tif source=004487-DIV1-1 Original Assignment 05DEC2012#page11.tif

> PATENT REEL: 029411 FRAME: 0051

ASSIGNMENT

In consideration of One Dollar and other good and valuable consideration, of which we acknowledge receipt, I/we,

MATTHEW L. BECKER	of	5049 Merganser Court, Frederick, MD 21703
HUAFENG FANG	of	601 Floradale Court. St. Louis, MO 63132
XIAOXU LI	of	401 W. 118th Street #41, New York, NY 10027
DIPANJAN PAN	of	IA-219, Sector III, Salt Lake City, Kolkata-97,
		West Bengal, India
RAFFAELLA ROSSIN	of	3935 Tholozan Avenue #1, St. Louis, MO 63116
XIANKAI SUN	of	820 Lakeview Court, Coppell, TX 75019
JOHN-STEPHEN TAYLOR	of	456 Staines Court, St. Louis, MO 63141
JEFFREY L. TURNER	of	#4 Estates Court, St. Louis, MO 63135
MICHAEL JOHN WELCH	of	312 N. Meramec #200, Clayton, MO 63105
KAREN L. WOOLEY	of	7334 Carleton Avenue, St. Louis, MO 63130
· · · · · · · · · · · · · · · · · · ·		

hereby sell and assign to WASHINGTON UNIVERSITY IN ST. LOUIS, having an address at 660 South Euclid, St. Louis, Missouri 63110, USA, (hereinafter "WASHINGTON UNIVERSITY") its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements invented and originated by me/us and described in the application for United States Patent currently entitled:

CELL PERMEABLE NANOCONJUGATES OF SHELL-CROSSLINKED KNEDEL (SCK) AND PEPTIDE NUCLEIC ACIDS ("PNAs") WITH UNIQUELY EXPRESSED OR OVER-EXPRESSED MRNA TARGETING SEQUENCES FOR EARLY DIAGNOSIS AND THERAPY OF CANCER

	executed concurrently herewith,		
\boxtimes	filed on October 14, 2005 having Serial Number	11/250,8	<u>3</u> 0·

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Assignee, or its successors or assigns and agree that on request and without further consideration, but at the expense of said Assignee, I/we will communicate to said Assignee or its representatives or nominees any facts known to me/us respecting said inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said invention and improvements its all countries.

INVENTOR 1				
Signature; MATTHEW L	BECKER	Dat	te:	
Witnessed by:	Signature	Dat	te:	
	Printed Name of Witnes	ss		
Witnessed by:	Signature	Dat	te:	
	Printed Name of Witnes	<u></u>		
SECTION BE	. Seeks		N PRESENCE OF A NOTARY	
STATE OF \mathcal{L}	Maryland Montgomery	SS.		
MATTHEW L.	<u>BECKER</u> , to me pers	onally known as the in-	ersonally came the above-named dividual who executed the foregoin the same of his/her own free will fo	ig or
	crein set forth.	Jant 10 site checked	3 Logheli	J.
· -		•	Otary Public) JOAN B. LOFHIELA MOTARY PUBLIC STATE OF MARYLAND MY Commission Friction In a 2009	

Page 2 of 11

INVENTOR 2	
Signature: HUAFENG FANG	Date:
Witnessed by:Signature	Date:
Printed Name of Witness	
Witnessed by:Signature	Date:
Printed Name of Witness	·
SECTION BELOW IS FOR USE OF	NLY IF SIGNING IN PRESENCE OF A NOTARY Date:
STATE OF Museouri COUNTY OF States	es.
This 28th day of flowers to me personally assignment, who acknowledged to me the purposes therein set forth.	2006 before me personally came the above-named known as the individual who executed the foregoing that he/she executed the same of his/her own free will for
Seal MARKSION SEAL SEE NOTARY SEAL SEE	Motary Public)

Page 3 of 11

INVENTOR 3			
Signature:XIAOXU LI	Raoxu L.	Date: <u>02</u>	-28-06
Witnessed by:	Danie Signature	Date: 1	28/06
Witnessed by:	Printed Name of Witness Signature LANRONG BJ Printed Name of Witness	Date:	2/28/06
SECTION BE	LOW IS FOR USE ONLY IF	SIGNING IN PRESE	
STATE OF	SS.		
This daxidate day	o me personally known as the indudged to me that he/she execut	dividual who executed	the foregoing assignment
Seal ·		(Notary Publ	ic)

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DOCKET NUMBER: 15060-75	DOCKET	NUN	ABER:	15060	-75
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INVENTOR 4			
Signature: DIPANJAN PA	g.paja la	Date:	RY 21, 2006
Witnessed by: _	Bhuvaneshwari - Gr Signature	Date: <u>FEBRUA</u>	R.Y 21, 2006
-	BHUVANESHWART Printed Name of Witness		
Witnessed by: _	Angone sonPon. Signature	Date: FEBRUA	RY 21, 2006
	Printed Name of Witness		
SECTION BEI	LOW IS FOR USE ONLY IF S	IGNING IN PRESENC	E OF A NOTARY
DIPANJAN PAN		:	
STATE OF	SS.		
DIPANJAN PAI	of, 2006 be N, to me personally known as acknowledged to me that he/sh rein set forth.	the individual who ex	ecuted the foregoing
Seal		(Notary Public)	

Page 5 of 11

INVENTOR 5			
Signature:RAFFAELLA	ROSSIN	Date:	
Witnessed by:	Signature	Date:	
	Printed Name of Witness		
Witnessed by:	Signature	Date:	
	Printed Name of Witness		
SECTION BE	ELOW IS FOR USE ONLY	IF SIGNING IN PRESENCE OF A	NOTARY
RAFFAELLA	akar I Rossin	Date: Z ZZ 06	
STATE OF A	Cityof St. Louis		
assignment, w	ay of <u>february</u> , <u>2c</u> ROSSIN, to me personally kn ho acknowledged to me that h herein set forth.	before me personally came the ablown as the individual who executed e/she executed the same of his/her ow	pove-named the foregoing n free will for
Seal	Ly	m M. Lanner (Notary Public)	
" NOTARY Lynn M. Lammers, St. Louis City. Stat	SEAL * Notary Public * e of Missouri		

Page 6 of 11

INVENTOR 6	
Signature: XIANKAI SUN	Date: 02/26/2006
Witnessed by: Nelvaly Signature	nimoses Date: 2/21/06
Melody Signature of Win	tness
Witnessed by: Signature	Date:
JOCELY N CHAP Printed Name of Wi	
•	
SECTION BELOW IS FOR US	E ONLY IF SIGNING IN PRESENCE OF A NOTARY
XIANKAI SUN	Date:
XIANKAI SUN	Date:
	Date:
XIANKAI SUN STATE OF	
	Date:
STATE OF	
STATE OF COUNTY OF This day of	ss. , 2006 before me personally came the above-named
STATE OF COUNTY OF This day of XIANKAI SUN, to me persona	ss. , 2006 before me personally came the above-named lly known as the individual who executed the foregoing
STATE OF COUNTY OF This day of XIANKAI SUN, to me persona	ss. , 2006 before me personally came the above-named
STATE OF COUNTY OF This day of XIANKAI SUN, to me persona assignment, who acknowledged to	ss. , 2006 before me personally came the above-named lly known as the individual who executed the foregoing
STATE OF COUNTY OF This day of XIANKAI SUN, to me persona assignment, who acknowledged to	ss. , 2006 before me personally came the above-named lly known as the individual who executed the foregoing

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INVENTOR 7			
Signature: JOHN-STEPHI	EN TAYLOR	Date:	.
Witnessed by:	Signature	Date:	
	Printed Name of Witness		
Witnessed by:	Signature	Date:	
	Printed Name of Witness		
SECTION BE	LOW IS FOR USE ONL	Y IF SIGNING IN PRESENCE OF A N	OTARY
DICE OHN-STEPHI	NTAYLOR	Date: 2/28/06	
STATE OF Z	Masouri St Spis		
foregoing assig	EN TAYLOR, to file per	2006 before me personally came the above sonally known as the individual who ed to me that he/she executed the same of	executed the

Page 8 of 11

INVENTOR 8		
Signature: JEFFREY L. TURNER		Date: $2/23/2$
Witnessed by: <u>Judith a Bo</u> Signature	land	Date: 2/23/06
Judith A. Bol Printed Name of Witness		
Witnessed by: Holy Ch. Signature	asmon	Date: 2/83/06
HOLLY A. Change Printed Name of Witness	nan	
SECTION BELOW IS FOR USE O	NLY IF SIGNIN	NG IN PRESENCE OF A NOTARY
	_ .	
	Dote	
JEFFREY L. TURNER	Date.	
STATE OF	SS.	
COUNTY OF	.	
This day of	_, 2006 before m	ne personally came the above-named
assignment, who acknowledged to me the purposes therein set forth.	ally known as the that he/she execu	e individual who executed the foregoing ated the same of his/her own free will for
~ ·		
Seal _		(Notary Public)
		(

Page 9 of 11

INVENTOR 9			
Signature: Arch / Wa MICHAEL JOHN WELCH		Date: Feb 20	<u> </u>
Witnessed by: Rolle Vignature	<u>~</u>	Date: 2 28 6	<u>.</u>
RAFFAFLLA ROSS Printed Name of Witness		a / 1. c	
Witnessed by: Signature Ourie Bouri Printed Name of Witness		Date:2/28/06	***************************************
SECTION BELOW IS FOR USE OF	NLY IF SIGNI	NG IN PRESENCE OF	A NOTARY
MICHAEL JOHN WELCH	Date:		
STATE OFss	i .		
This day of	ersonally know ged to me that I	ne personally came the about as the individual wheeleshe executed the same	o executed the
Seal		Olas n. 11	···
		(Notary Public)	

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PATENT REEL: 029411 FRAME: 0062