PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Bert VOGELSTEIN	03/30/2011
Kenneth KINZLER	03/30/2011
D. Williams PARSONS	05/13/2011
Xiaosong ZHANG	03/28/2011
Jimmy Cheng-Ho LIN	03/28/2011
Rebecca J. LEARY	04/01/2011
Phillip ANGENENDT	03/28/2011
Nickolas PAPADOPOULOS	03/30/2011
Victor VELCULESCU	03/30/2011
Giovanni PARMIGIANI	05/21/2011
Rachel KARCHIN	04/19/2011
Sian JONES	03/30/2011

RECEIVING PARTY DATA

Name:	THE JOHNS HOPKINS UNIVERSITY
Street Address:	3400 N. Charles Street
City:	Baltimore
State/Country:	MARYLAND
Postal Code:	21218

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13060191

CORRESPONDENCE DATA

Fax Number: (202)824-3001

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

Phone: 202-824-3000

Email: jpittman@bannerwitcoff.com

PATENT

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501561745 REEL: 026427 FRAME: 0288

Correspondent Name: Sarah A. Kagan Address Line 1: 1100 13th St. N.W.

Address Line 2: Suite 1200

Address Line 4: Washington, DISTRICT OF COLUMBIA 20005

ATTORNEY DOCKET NUMBER: 001107.00856

NAME OF SUBMITTER: Sarah A. Kagan

Total Attachments: 10

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PATENT REEL: 026427 FRAME: 0289 Application No: 13/060,191

BW: 001107.00856

ASSIGNMENT

WHEREAS, we,

Bert VOGELSTEIN, a citizen of the United States of America, with mailing address at 3700 Breton Way, Baltimore, Maryland 21208 (US) and

Kenneth W. KINZLER, a citizen of the United States of America, with mailing address at 1403 Halkirk Way, Baltimore, Maryland 21015 (US) and

D. Williams PARSONS, a citizen of the United States of America, with mailing address at 4553 Hemlock Cone Way, Ellicott City, Maryland 21042 (US) and

Xiaosong ZHANG, a citizen of China, with mailing address at 8309 Nunley Drive, Apt E, Baltimore, Maryland 21234 (US) and

Jimmy Chang-Ho LIN, a citizen of the United States of America, with mailing address at 820 N. Broadway, Baltimore, Maryland 21205 (US) and

Rebecca J. LEARY, a citizen of the United States of America, with mailing address at 218 N. Charles Street, Apt. 807, Baltimore, Maryland 21201 (US) and

Philipp ANGENENDT, a citizen of Germany, with mailing address at 6 Sunny Meadow Court, Apt. 301, Baltimore, Maryland 21209 (US) and

Nickolas PAPADOPOULOS, a citizen of the United States of America, with mailing address at 606 Horncrest Rd., Towson, Maryland 21204 (US) and

Victor VELCULESCU, a citizen of the United States of America, with mailing address at 14064 Big Branch Drive, Dayton, Maryland 21036 (US) and

Giovanni PARMIGIANI, a citizen of the United States of America, with mailing address at 337 Warren Avenue, Baltimore, Maryland 21230 (US) and

Rachel KARCHIN, a citizen of the United States of America, with mailing address at 1208 Brookside Lane, Towson, Maryland 21204 (US) and

Sian JONES, a citizen of Great Britain, with mailing address at 111 W. Centre Street, Apt. 305, Baltimore, Maryland 21201 (US) and

BW: 001107.00856

along with,

Hai YAN, a citizen of the United States of America, with mailing address at 101 River Birch Lane, Chapel Hill, North Carolina 27514 (US) and

Darrell BIGNER, a citizen of the United States of America, with mailing address at 513 Corbett Ridge Road, Mebane, North Carolina 27302 (US) and

Chien-Tsun KUAN, a citizen of the United States of America, with mailing address at 202 Hardenbrook Court, Cary, North Carolina, 27519 (US)

are the inventors of certain inventions and improvements described in a U.S. patent application identified by having the title:

GENETIC ALTERATIONS IN ISOCITRATE DEHYDROGENASE AND OTHER GENES IN MALIGNANT GLIOMA

which application

[X] was filed as PCT International Application Number <u>PCT/US2009/055803</u>, filed on September 3, 2009 and as U.S. Application Serial Number 13/061,191

and WHEREAS

THE JOHNS HOPKINS UNIVERSITY 3400 N. Charles Street Baltimore, Maryland 21218 United States of America

ASSIGNEE, desires to acquire our entire right, title and interest in and to the said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successors, assign and legal representatives (NOMINEES) our entire right, title and interest in and to said application, inventions and improvements throughout the world and to any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

Page 2 of 4

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and we agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in our names or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And we hereby grant our attorneys at the law firm of Banner & Witcoff the power to insert into this document information sufficient to identify the patent application to which this assignment pertains.

F		
Date: 3 30 11	Inventor:	Bert VOGELSITEIN
Date: 3/30/11	Inventor:	Kenneth W KINZLER
Date:	Inventor:	D. Williams PARSONS
Date:	Inventor:	Xiaosong ZHANG
Date:	Inventor:	Jimmy Chang-Ho LIN
Date:	Inventor:	Rebecca J. LEARY

Page 3 of 4

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Date:	Inventor:	
		Bert VOGELSTEIN
Date:	Inventor:	•
		Kenneth K. KINZLER
Date: 5/13/11	Inventor:	D. William Man
, , , ,		D. Williams PARSONS
Date:	Inventor:	
		Xiaosong ZHANG
Date:	Inventor:	
		Jimmy Chang-Ho LIN
Date:	Inventor:	
		Rebecca J. LEARY

Page 3 of 4

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Date:	Inventor:	Bert VOGELSTEIN
Date:	Inventor:	Kenneth K. KINZLER
Date:	Inventor:	D. Williams PARSONS
Date: 3/28/2011	Inventor:	Xiaosong ZHANG
Date:	Inventor:	Jimmy Chang-Ho LIN
Date:	Inventor:	Rebecca J. LEARY

Page 3 of 4

REEL: 026427 FRAME: 0294

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Date:	Inventor:	
		Bert VOGELSTEIN
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		Kenneth K. KINZLER
Date:	Inventor:	
		D. Williams PARSONS
Date:	Inventor:	
		Xiaosong ZHANG
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		Jimmy Chang-Ho LIN Cheng-Ho
Date:	Inventor:	Greng-Ho
		Rebecca J. LEARY

Page 3 of 4

Date: 3/18/2011	Inventor:	Ph. h
		Philipp ANGENENDT
Date:	Inventor:	
		Nickolas PAPADOPOULOS
Date:	Inventor:	
		Victor VELCULESCU
Date:	Inventor:	
		Giovanni PARMIGIANI
Date:	Inventor:	
Date.	involution.	Rachel KARCHIN
Data	Inventor:	
Date:	mvemor.	Sian IONES

Note: No legalization or other witness required.

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		Philipp ANGENENDT
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		Victor VELCULESCU
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	-	Giovanni PARMIGIANI
		·
Date:	Inventor: _	Rachel KARCHIN
		Raciiei KARCHIN
Date: 3 30 11	Inventor:	Stones
	-	Sian JONES

Note: No legalization or other witness required.

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	_	Philipp ANGENENDT	_
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		Nickolas PAPADOPOULOS	
Date:	Inventor:		
<u></u>		Victor VELCULESCU	_
Date: 5/21/11	Inventor:	Cham	
		Giovann PARMIGIANI	
Date:	Inventor:		
		Rachel KARCHIN	_
Date:	Inventor:		
		Sian IONES	_

Note: No legalization or other witness required.

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BW: 001107.00856

Date:	Inventor:	
		Philipp ANGENENDT
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_ / /	_	Rachel KARCHIN
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Note: No legalization or other witness required.

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