PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3801106

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DEVIN DRESSMAN	06/06/2006
HAI YAN	06/06/2006
KENNETH W. KINZLER	06/06/2006
BERT VOGELSTEIN	06/06/2006

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:	13311120

CORRESPONDENCE DATA

Fax Number: (202)824-3001

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Email: jhazzard@bannerwitcoff.com, bwptopat@bannerwitcoff.com

BANNER & WITCOFF, LTD. **Correspondent Name:** Address Line 1: 1100 13TH STREET, NW

Address Line 2: **SUITE 1200**

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	001107.00908
NAME OF SUBMITTER:	SARAH A. KAGAN
SIGNATURE:	/Sarah A. Kagan/
DATE SIGNED:	03/25/2016

Total Attachments: 3

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> **PATENT REEL: 038102 FRAME: 0923** 503754460

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PATENT REEL: 038102 FRAME: 0924

ASSIGNMENT

WHEREAS, WE, Devin Dressman, a U.S. citizen, residing at 701 S. Luzerne Avenue, Baltimore, Maryland 21224; Hai Yan, a Chinese citizen, residing at 7236 Montgomery Road, #3C, Elkridge, Maryland 21075; Kenneth W. Kinzler, a U.S. citizen, residing at 1403 Halkirk Way, Baltimore, Maryland 21015 and Bert Vogelstein, a U.S. citizen, residing at 3700 Breton Way, Baltimore, Maryland 21208 (Assignors), have invented certain new and useful improvements in "METHOD AND COMPOSITIONS FOR DETECTION AND ENUMERATION OF GENETIC VARIATIONS" for which an International Patent application was filed on June 9. 2004, and accorded Serial No. PCT/US2004/015587, and a U.S. National Phase application was filed on December 29, 2005, and accorded Serial No. 10/562,840;

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland, having a place of business at 3400 N. Charles Street, Baltimore, Maryland 21218 (Assignee), is desirous of acquiring our entire right, title and interest in and to the aforesaid inventions and in and to any Letters Patents of the United States or any foreign country which may be granted therefore;

NOW THEREFORE, for good and valuable consideration, we, Devin Dressman, Hai Yan, Kenneth W. Kinzler, and Bert Vogelstein, by these presents do sell, assign, and transfer unto The Johns Hopkins University, its successors, legal representatives and assigns, our full right to the said inventions as described in the said applications, and our entire right, title and interest in and to any and all Letters Patents which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations and extensions thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks or any other proper officer or agency of any country to issue all said Letters Patents to said assignee;

AND WE HEREBY warrant and covenant that we have full right to convey our entire interest herein assigned and that we have not executed and will not execute any instrument or assignment in conflict herewith;

AND WE HEREBY agree to communicate to said assignee or its representatives any facts known to us respecting said inventions, to execute all divisional, continuation, reissue and foreign applications, sign all lawful documents and make all rightful oaths relating to said inventions, and to testify in any judicial or administrative proceeding and generally do everything possible to aid the said assignee to obtain and enforce said Letters Patents in the United States or any foreign country when requested so to do by said assignee.

Date: _	6606	Inventor: Devin Dressman	
Date:		Inventor: Hai Yan	

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Joint Assignment , 001107.00581 DM-4273

ASSIGNMENT

101 River Birch Lane NC, 27514 Hy

WHEREAS, WE, Devin/Dressman, a U.S. citizen, residing at 701 S. Luzerne Avenue, Baltimore, Maryland 21224; Hai Yan, a Chinese citizen, residing at 7236 Montgomery Road, #3C, Elkridge, Maryland 21075; Kenneth W. Kinzler, a U.S. citizen, residing at 1403 Halkirk Way, Baltimore, Maryland 21015 and Bert Vogelstein, a U.S. citizen, residing at 3700 Breton Way, Baltimore, Maryland 21208 (Assignors), have invented certain new and useful improvements in "METHOD AND COMPOSITIONS FOR DETECTION AND ENUMERATION OF GENETIC VARIATIONS" for which an International Patent application was filed on June 9. 2004, and accorded Serial No. PCT/US2004/015587, and a U.S. National Phase application was filed on December 29, 2005, and accorded Serial No. 10/562,840;

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland, having a place of business at 3400 N. Charles Street, Baltimore, Maryland 21218 (Assignee), is desirous of acquiring our entire right, title and interest in and to the aforesaid inventions and in and to any Letters Patents of the United States or any foreign country which may be granted therefore;

NOW THEREFORE, for good and valuable consideration, we, Devin Dressman, Hai Yan, Kenneth W. Kinzler, and Bert Vogelstein, by these presents do sell, assign, and transfer unto The Johns Hopkins University, its successors, legal representatives and assigns, our full right to the said inventions as described in the said applications, and our entire right, title and interest in and to any and all Letters Patents which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations and extensions thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks or any other proper officer or agency of any country to issue all said Letters Patents to said assignee;

AND WE HEREBY warrant and covenant that we have full right to convey our entire interest herein assigned and that we have not executed and will not execute any instrument or assignment in conflict herewith;

AND WE HEREBY agree to communicate to said assignee or its representatives any facts known to us respecting said inventions, to execute all divisional, continuation, reissue and foreign applications, sign all lawful documents and make all rightful oaths relating to said inventions, and to testify in any judicial or administrative proceeding and generally do everything possible to aid the said assignee to obtain and enforce said Letters Patents in the United States or any foreign country when requested so to do by said assignee.

Date:	Inventor:	
	Devin Dressman	
Date: 06-06-06	Inventor: Janks	
	Hai Yan	

Page 1 of 2

Date: 6 6 06

Inventor:

Inventor:

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RECORDED: 03/25/2016