M PTO-1595 (Modified)		06-28-20	007	HEET	U.S. DEPART	MENT OF CO	MMERCE
.03-01)* No. 0651-0027 (exp.5/31/2002) VREV04				Y	Pate	ent and Tradem	ark Office
b settings → → ▼		1034208	30			<u> </u>	<u> </u>
To the Director of the		100 1200			d original docume		nereor.
Name of conveying parts SAMUELS, Yardena VELCULESCU, Victor KINZLER, Kenneth WOGELSTEIN, Bert		6-14.07		nd address of re he Johns Hopkir 3400 N. Charle		s):	
dditional names(s) of convey	ving party(ies)	☐ Yes 🔯 No					
Nature of conveyance: ☑ Assignment		Merger					
Security Agreement	: -	Change of Name	City: Balt	imore	State/Prov.:	Maryland	
Other			' -	US	ZIP:	21218	
xecution Date: 5/14/07	, 5/14/07, 5/14,	07 & 5/16/07	,				
			Additional na	me(s) & address(e	s) 🗆	Yes 🖾 I	No
	036 190733 1059	t 31, 2006 31347		. Patent No.(s)			
		Additional numbers				4- 1-1-1-1-1	
Name and address of concerning document			6. Total nu	umber of applica	ations and paten	its involved:	<u> </u>
Name: Sarah A. Kaga	ın		7. Total fe	e (37 CFR 3.41):\$	40.00	
Registration No. 32,14 Address: Banner & V	☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account						
Suite 1200			⊠ Aut	horized to be ch	arged to depos	it account	
1100 13th S	8. Deposit account number:						
City: Washington	Sta	te/Prov.: D.C.	19-0733	}		<u> </u>	
Country: US	ZI	P: <u>20005-4051</u>	(Attach	duplicate copy of the	his page if paying by	y deposit accou	unt)
		DO NO	T USE THIS S	PACE ·			
Statement and signature of the best of my know of the original docume	wledge and beli	ief, the foregoing infor	010	re and correct a		opy is a tr	
Name of Pers			Signa	ture	5	Date	
	Total nu	umber of pages including co Mail documents to be recorded w			ment:		

Mail documents to be recorded with required cover sheet information to:
Mail Stop Assignment Recordation Services
Director of the United States Patent and Trademark Office
P.O. Box 1450, Alexandria, VA 22313-1450

Docket No.: 001107.00617

ASSIGNMENT

WHEREAS, We, Yardena SAMUELS, an IL citizen, residing at 6712 Bonnie Ridge Drive, Apt 202, Baltimore, MD 21209, USA; Victor VELCULESCU a U.S. citizen, residing at 14064 Big Branch Drive, Dayton, Maryland, 21036 USA; Kenneth W. KINZLER, a U.S. citizen, residing at 1403 Halkirk Way, Bel Air, MD 21015, and Bert VOGELSTEIN, a U.S. citizen, residing at 3700 Breton Way, Baltimore, MD 21208, have invented certain new and useful improvements in "MUTATIONS OF THE PIK3CA GENE IN HUMAN CANCERS" for which the Declaration for said application was executed on even date herewith; and for which provisional application for Letters Patent of the United States, Serial No. 60/548,886, filed March 2, 2004; a PCT Application No. PCT/US2005/005193 was filed on February 18, 2005 and U.S. National Phase Application No. 10/591,347 was filed on September 7, 2006.

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland, having a place of business at 100 N. Charles Street, 5th Floor, Baltimore, Maryland 21201 (Assignee), is desirous of acquiring the entire rights, titles 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 therefor;

NOW THEREFORE, for good and valuable consideration, We, Yardena SAMUELS; Victor VELCULESCU; 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;

PATENT REEL: 019507 FRAME: 0878 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: Yardena SAMUELS
Date: 5/14/07	Inventor: Victor VELCULESCU
Date: 5/17/07	Inventor: Kenneth W. KINZLER
Date: 5.14.07	Inventor: Bert VOGELSTEIN

PATENT REEL: 019507 FRAME: 0879 ASSIGNMENT

19721 Deboyat dining, Rolling Could

us M WHEREAS, We, Yardena SAMUELS, an II. citizen, residing at 6712 Bonniu Ridge Drive, Apt. Zerry 164.
Beltimere, MD 31207, USA, Victor VELCULESCU a U.S. citizen, residing at 14064 Big Branch Drive, Dayton, Maryland, 21036 USA; Kenneth W. KINZLER, a U.S. chizen, residing at 1403 Halkirk Way. Hel Air, MD 21015, and Bert VOOELSTEIN, a U.S. chizen, residing at 3700 Breton Way. Baltimore, MD 21208, have invested certain new and useful improvements in "MUTATIONS OF THE PIK3CA GENE IN HUMAN CANCERS" for which the Declaration for said application was exceeded on aven date herewith; and for which previsional application for Letters Petent of the United States, Safel No. 60/548,886, filed Murch 2, 2004; a PCT Application No. PCT/LE2005/005193 was filed on February 18, 2005 and U.S. National Phase Application No. 10/591,347 was filed on Supermber 7, 2006.

5/16/07

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland, having a place of business at 100 N. Charles Street, 5th Floor, Beltimora, Maryland 21201 (Assignos), is desirous of acquiring the centre rights, thics and interest in and to the aforesaid inventions and in each to any Latters Patents of the United States or any foreign country which tray be granted therefor,

NOW THEREFORE, for good and valuable coreideration, We, Yardena SAMUELS; Victor VELCULESCU: Kanneth W. KINZLER and Bert VOGELSTEIN, by these presents do sell, unign, and transfer unto The Johns Hopkins University, its successors, legal repressoratives and assigns, our full right to the said inventions as described in the said applications, and our entire right, this and interest in and to any and all Letters Patents which may be granted therefore in the United Scares and he territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, Sorrath agolians has engineerings

AND WE HEREBY suthering and request the Commissioner of Petenss and Trademarks or any other proper officer or agency of any country to laure all said Letters Patoms to said essistant

AND WE HEREBY warrant and covenant that we have full right to convey our online interest hamin essigned and that we have not expound and will not execute any instrument or assignment in conflict herewith:

PATENT

REEL: 019507 FRAME: 0880

AND WE HEREBY agree to communicate to said essignee 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: 6/16/07	Inventor:
Date:	Inventor: Victor VELCULESCU
Date:	Inventor: Kenneth W. KINZLER
Date:	Inventor:Ben VOQELSTEIN

PATENT REEL: 019507 FRAME: 0881

RECORDED: 06/14/2007