Form PTO-1592 (modified) 13 15 80	01156734701107.00031
To the Honorable Commissioner of Patents and Code Packs: Ple	
1. Name of Conveying Party or Parties:  Bert Vogelstein Kenneth W. Kinzler  Additional Names of conveying party or parties attached:  Yes No  3. Nature of Conveyance:  Assignment	2. Name and address of receiving party or parties:  The Johns Hopkins University 111 Market Place, Suite 906 Baltimore, Maryland 21202  Additional Name(s) and address(es) attached?   Yes No
4. Application Number(s) or Patent Number(s):  If this document is being filed together with a new application, t  A. Patent Application Number(s):  09/613,826  Additional Name(s) and address(es) attached?  Yes No	he execution date of the application is:  B. Patent Number(s):
5. Name and address of party to whom correspondence concerning the document should be mailed:  Banner & Witcoff, Ltd. 1001 G Street, N.W., Suite 1100 Washington, D.C. 20001-4597	<ul> <li>6. Total Number of Applications and patents involved:</li> <li>7. Total fee (37 CFR 3.41) \$ 40.00             Enclosed             X Authorized to be charged to deposit account             X Please charge or credit our deposit account for any additional or refunded fees associated with recording this assignment</li> <li>8. Deposit Account No.:             19-0733 (in the event additional fees are required)</li> </ul>
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9. Statement and Signature:  To the best of my knowledge and belief, the foregoing info copy of the original document.  Sarah A. Kagan, Reg. No. 32,141  Name of Person Signing  Signature	December 12, 2000 Date  Total Number of Pages comprising Cover Sheet: 2

**PATENT REEL: 011372 FRAME: 0414** 

## ASSIGNMENT

WHEREAS, We, Bert Vogelstein, citizen of the United States, residing at 3700 Breton Way, Baltimore, Maryland 21208, and Kenneth W. Kinzler, citizen of the United States, residing at 1403 Halkirk Way, BelAir, Maryland 21015; have invented certain new and useful improvements in "DIGITAL **AMPLIFICATION**", for which an application for Letters Patent of the United States was filed on July 11, 2000. and accorded Serial No. 09/613,826; and

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland having a place of business in Baltimore, Maryland, is desirous of acquiring the entire right, title and interest in and to the aforesaid invention and in and to any Letters Patent of the United States or any foreign country which may be granted therefor;

NOW THEREFORE, for good and valuable consideration, we, the said Bert Vogelstein, and Kenneth W. Kinzler by these presents do sell, assign, and transfer unto The Johns Hopkins University, its successors, legal representatives and assigns, the full and exclusive right to the said invention as described in the said application, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor 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 Patent to said assignee;

**AND WE HEREBY** warrant and covenant that we have full right to convey the 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 invention, to execute all divisional, continuation, reissue and foreign applications, sign all lawful documents and make all rightful oaths relating to said invention, 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 Patent in the United States or any foreign country when requested so to do by said assignee.

IN WITNESS WHEREOF, we have hereunto set our hand and seal.

	11.16				
Date:	VIII VO	<u>.</u>	Inventor:	11 28 00	_
				Bert Vogelstein	
Date:	11/28/00		Inventor:	Comet W. Lind	
				Kenneth W. Kinzler	
STATE	OF MARYLAND	)			
COUNT	Y OF BALTIMORE	) ss )			

On this <u>28</u> day of **Frembly**, 1999 before me a Notary Public in and for the County and State aforesaid, personally appeared Bert Vogelstein, and Kenneth W. Kinzler, to me known and known to me to be the persons of those names, who signed and

sealed the foregoing instrument, and acknowledged the same to be their free act and deed.

Notary Public

My Commission Expires:

**PATENT** REEL: 011372 FRAME: 0415

RECORDED: 12/15/2000