

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

| SUBMISSION TYPE:   | NEW ASSIGNMENT               |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
|--|------------------------------|---------------|------------------------------|---------------------|------------------------|--------------------|------------|-------------------|------------|-----------------------|------------|------------|------------|
| NATURE OF CONVEYANCE:  | ASSIGNMENT                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| CONVEYING PARTY DATA   |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Bert Vogelstein</td> <td>02/10/2011</td> </tr> <tr> <td>Kenneth W. Kinzler</td> <td>02/14/2011</td> </tr> <tr> <td>Victor Velculescu</td> <td>02/15/2011</td> </tr> <tr> <td>Nickolas Papadopoulos</td> <td>02/14/2011</td> </tr> <tr> <td>Sian Jones</td> <td>02/10/2011</td> </tr> </tbody> </table> |                              | Name          | Execution Date               | Bert Vogelstein     | 02/10/2011             | Kenneth W. Kinzler | 02/14/2011 | Victor Velculescu | 02/15/2011 | Nickolas Papadopoulos | 02/14/2011 | Sian Jones | 02/10/2011 |
| Name   | Execution Date               |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Bert Vogelstein  | 02/10/2011                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Kenneth W. Kinzler   | 02/14/2011                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Victor Velculescu  | 02/15/2011                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Nickolas Papadopoulos  | 02/14/2011                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Sian Jones   | 02/10/2011                   |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| RECEIVING PARTY DATA   |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| <table border="1"> <tr> <td>Name:</td> <td>The Johns Hopkins University</td> </tr> <tr> <td>Street Address:</td> <td>3400 N. Charles Street</td> </tr> <tr> <td>City:</td> <td>Baltimore</td> </tr> <tr> <td>State/Country:</td> <td>MARYLAND</td> </tr> <tr> <td>Postal Code:</td> <td>21218</td> </tr> </table>  |                              | Name:         | The Johns Hopkins University | Street Address:     | 3400 N. Charles Street | City:              | Baltimore  | State/Country:    | MARYLAND   | Postal Code:          | 21218      |            |            |
| Name:  | The Johns Hopkins University |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Street Address:  | 3400 N. Charles Street       |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| City:  | Baltimore                    |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| State/Country:   | MARYLAND                     |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Postal Code:   | 21218                        |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| PROPERTY NUMBERS Total: 1  |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13819933</td> </tr> </tbody> </table>  |                              | Property Type | Number                       | Application Number: | 13819933               |                    |            |                   |            |                       |            |            |            |
| Property Type  | Number                       |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| Application Number:  | 13819933                     |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| CORRESPONDENCE DATA  |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| <p>Fax Number: 2028243001<br/> <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 2028243291</p> <p>Email: lhemmendinger@bannerwitcoff.com,bharrison@bannerwitcoff.com</p> <p>Correspondent Name: Lisa M. Hemmendinger</p> <p>Address Line 1: 1100 13th Street, NW</p> <p>Address Line 4: Washington, DISTRICT OF COLUMBIA 20005-4051</p>                    |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| ATTORNEY DOCKET NUMBER:  | 001107.00969                 |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| NAME OF SUBMITTER:   | Lisa M. Hemmendinger         |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |
| <p>Total Attachments: 2</p> <p>source=executed assignment (from parent 1107.825)#page1.tif</p> <p>source=executed assignment (from parent 1107.825)#page2.tif</p>  |                              |               |                              |                     |                        |                    |            |                   |            |                       |            |            |            |

CH \$40.00 13819933

## ASSIGNMENT

WHEREAS, WE, Bert VOGELSTEIN, a citizen of the United States, Kenneth W. KINZLER, a citizen of the United States, Victor VELCULESCU, a citizen of the United States, Nickolas PAPADOPOULOS, a citizen of the United States, and Sian JONES, a citizen of the U.K., each with a mailing address c/o The Johns Hopkins University, 3400 N. Charles Street, Baltimore, Maryland 21218 (Assignors), have invented certain new and useful improvements in **“ARID1A AND PPP2R1A MUTATIONS IN CANCER”** for which a provisional application for Letters Patent of the United States was filed on September 3, 2010, and accorded Serial No. 61/379,875; and

WHEREAS, The Johns Hopkins University, having a mailing address at 3400 N. Charles Street, Baltimore, Maryland 21218 (Assignee), wants to acquire 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 therefore;

NOW THEREFORE, for good and valuable consideration, we, Bert VOGELSTEIN, Kenneth W. KINZLER, Victor VELCULESCU, Nickolas PAPADOPOULOS and Sian JONES, 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 invention as described in the said application, and our entire right, title and interest in and to any and all Letters Patent 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 Director 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 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 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.

THE UNDERSIGNED HEREBY grant(s) the firm of Banner & Witcoff, Ltd. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this assignment.

Date: 2/10/11

Inventor:   
Bert Vogelstein

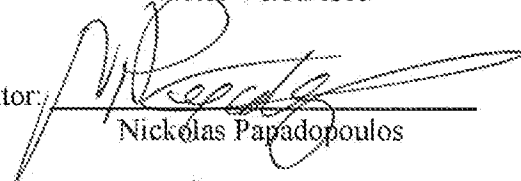
Date: 2/14/11

Inventor:   
Kenneth W. Kinzler

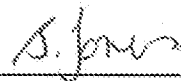
Date: 2/15/11

Inventor:   
Victor Velculescu

Date: 2/14/11

Inventor:   
Nickolas Papadopoulos

Date: 2/10/11

Inventor:   
Sian Jones