PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHANMUGASUNDARAM GANAPATHY-KANNIAPPAN	06/08/2020
SUROJIT SUR	06/09/2020
BERT VOGELSTEIN	06/17/2020
KENNETH W. KINZLER	06/08/2020
JEAN-FRANCOIS GESCHWIND	06/18/2020

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15773898

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DATE SIGNED:	07/01/2020

Total Attachments: 7

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PATENT REEL: 053115 FRAME: 0622

ASSIGNMENT

WHEREAS, we, Shanmugasundaram Ganapathy-Kanniappan, Surojit Sur, Bert Vogelstein, Kenneth W. Kinzler, and Jean-Francois Geschwind, have invented one or more inventions described in an application for Letters Patent of the United States, entitled METHODS OF TREATING LIVER FIBROSIS BY ADMINISTERING 3-BROMOPYRUVATE the specification of which:

[]	is being executed	herewith; and is a	about to be filed in the United Sta	ates Patent Office;	
[x]	was filed on	May 4, 2018	as U.S. Application No	15/773898	<u></u> \$.
	was filed on		as PCT Application No.		
	was patented on	2000	as U.S. Patent No.	*	
	WHEREAC T	bo Johns Haat:	**************************************		

WHEREAS, The Johns Hopkins University, (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of Maryland, having principal offices at 3400 North Charles Street, Baltimore, Maryland 21218, desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention(s) as described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon, and any substitution, reissue, continuation, divisional, revival and foreign counterparts thereof and including the right to claim priority under any applicable statute, treaty or convention based on said application; said invention(s), application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, all choses in action pertaining to the applications or Letters Patent including the right to sue for and collect damages and other recoveries for past infringement thereof, all rights to initiate proceedings before government and administrative bodies, and all files, records and other materials arising from the prosecution, exploitation, or defense of rights and registrations pertaining to the applications or Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of

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ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional, continuation or revival applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

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Witness: Margaret J. Herchussel Date: 6/18/2020

Print Name: Margaret T. Geschusid

hereby acknowledge the foregoing executed Aniversity,	and the second s	TO THE STATE OF TH
By: Stukous,	Date:	6/28/2020
lame: Steven Kousouris		

ACKNOWLEDGEMENT OF ASSIGNEE:

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