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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
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BOHUA ZHANG	10/15/2020

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17068343

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ATTORNEY DOCKET NUMBER:	221404-1640	
NAME OF SUBMITTER: HEATHER C. GORMAN		
SIGNATURE:	/Heather C. Gorman/	
DATE SIGNED: 01/11/2021		

Total Attachments: 4

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ASSIGNMENT OF UTILITY PATENT APPLICATION

WHEREAS, the following parties:

<u>Name</u> Xiaoning Jiang	<u>Address</u> 1021 Main Campus Drive, 2nd Floor, Raleigh, N	Ĉ
-	27606	
Bohua Zhang	1021 Main Campus Drive, 2nd Floor, Raleigh, N	\bigcirc
-	27606	

hereinafter referred to as ASSIGNOR, has/have invented certain new and useful improvements ("invention(s)") as described and set forth in the below-identified utility application for United States Letters Patent entitled:

Systems And Methods For Ultrasound Induced Thrombolysis With Magnetic Microbubbles, Optional Nanodroplets, And A Rotational Magnetic Field

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which s	was:
	executed on even date herewith,
	filed with the United States Patent and Trademark Office (USPTO) on October
	12, 2020, and assigned Serial No. 17/068,343, and
	further described in U.S. Provisional application entitled "Systems And
	Methods For Ultrasound Induced Thrombolysis With Magnetic Microbubbles And A
	Rotational Magnetic Field", filed with the USPTO on October 11, 2019, and assigned
	Serial No. 62/913,944.

Note: Only one of the first two checkboxes will be checked. The third checkbox will be checked only if appropriate.

WHEREAS, North Carolina State University, having a place of business at Office of Research Commercialization, 1021 Main Campus Drive, 2nd Floor, Raleigh, NC 27606, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in and to said invention(s), said utility application, said provisional application, and any U.S. and foreign patents which are related to the same.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR, ASSIGNOR has sold, assigned and transferred and does hereby sell, assign and transfer unto ASSIGNEE, and ASSIGNEE'S successors and assigns, (a) the entire right, title and interest, for the United States of America, in and to said invention(s), said utility application, and said Provisional application and all the rights and privileges in any application and under any and all patents that may be granted in the U.S. for said inventions, including all corresponding provisional, continuation, continuation-in-part, divisional, reissue, and reexamination applications; and (b) the entire right, title and interest in and to said invention(s), said utility application, and said provisional application for all countries foreign to the U.S., including all rights of priority arising from them, and all the rights and privileges under any and all forms of protection, including patents, that may be granted in said countries foreign to the U.S. for them.

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ASSIGNOR authorizes ASSIGNEE to make application for such protection in its own name and maintain such protection in any and all countries foreign to the U.S., and to invoke and claim for any application for patent or other form of protection for said Inventions, without further authorization from ASSIGNOR, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

ASSIGNOR hereby consents that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of ASSIGNEE to apply for patent or other form of protection for said Inventions, said utility application, or said provisional application and to claim the aforesaid benefit of the right of priority.

ASSIGNOR requests that any and all patents for said inventions be issued to ASSIGNEE in the U.S. and to ASSIGNEE in all countries foreign to the U.S., or to such nominee as ASSIGNEE may designate.

ASSIGNOR covenants and agrees that, when requested, ASSIGNOR shall, without charge to ASSIGNEE but at ASSIGNEE'S expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient in connection with the patent applications, patents, or other forms of protection of said invention(s), and for the defense and protection thereof if challenged in the court of law.

ASSIGNOR authorizes ASSIGNEE or its agents to insert, on ASSIGNOR's behalf, the filing date and/or serial number above pertaining to the utility application and/or the provisional application, if not known as of the date of execution of this document.

	Docker No. 221404-1140 Page 3014
	Patent Assignment
	10/15/20
Alaoning Jiang Dat	(
Vithess Signature Dat	
Wimess Signature	
7 U.S. Frant Witness Name	
Print Witness Name	

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Bohua Zhang Bohua Zhang	Oct.15 2020
Bohua Zhang	Date
Hao Parl	Oct. 15 2020
Witness Signature	Date
Hao Pang Hao Pang	
Print Witness Name	

PATENT REEL: 054871 FRAME: 0191

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