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# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6621615

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
QINGRONG WU	01/09/2021
FANGFANG YIN	01/14/2021
CHUNHAO WANG	12/09/2020
JIAHAN ZHANG	01/08/2021
MANISHA PALTA	02/04/2021
YANG SHENG	12/04/2020

## **RECEIVING PARTY DATA**

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Street Address:	2812 S. ERWIN ROAD
City:	DURHAM
State/Country:	NORTH CAROLINA
Postal Code:	27705

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16871084

# **CORRESPONDENCE DATA**

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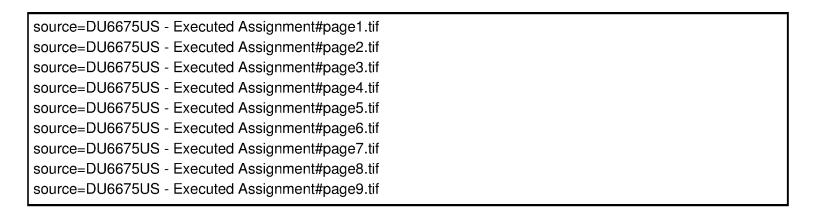
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ATTORNEY DOCKET NUMBER:	210-121-UTIL
NAME OF SUBMITTER:	BENTLEY J. OLIVE
SIGNATURE:	/Bentley J. Olive/
DATE SIGNED:	03/25/2021

**Total Attachments: 9** 

**PATENT** REEL: 055716 FRAME: 0244



PATENT REEL: 055716 FRAME: 0245

Duke Ref.: DU6675US

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## **ASSIGNMENT OF RIGHTS**

WHEREAS, We, Qingrong Wu, of Durham, North Carolina; FangFang Yin, of Durham, North Carolina; Chunhao Wang, of Durham, North Carolina; Jiahan Zhang, of Durham, North Carolina; Manisha Palta, of Durham, North Carolina and Yang Sheng, of Durham, North Carolina (hereinafter ASSIGNORS) are inventors of the one or more new and useful improvements described in Utility Application Serial No. 16/871,084, Attorney Docket No. 210-121-UTIL, filed on or about May 11, 2020, with the title: SYSTEMS AND METHODS FOR RADIATION TREATMENT PLANNING BASED ON A MODEL OF PLANNING STRATEGIES KNOWLEDGE INCLUDING TREATMENT PLANNING STATES AND ACTIONS which claims the benefit of and priority to U.S. Provisional Patent Application No. 62/845,942, filed on May 10, 2019.

WHEREAS, **Duke University**, having an address of 2812 Erwin Road, Suite 406, Durham, North Carolina 27705 (hereinafter, together with any successors, assigns, legal representatives of assignee or to any number of iterations of successors and assigns, collectively called ASSIGNEE) is desirous of transferring and memorializing the transfer of the entire right, title and interest therein for ASSIGNEE;

NOW, THEREFORE, ASSIGNORS, through ASSIGNORS' employment or other relationship with ASSIGNEE and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said ASSIGNORS by these presents hereby sell, assign, and transfer unto the said ASSIGNEE the full, exclusive, non-revocable, and worldwide rights, if any, to the said improvements, including improvements to ornamental design, and to all ASSIGNORS copyrights in the above-identified application(s), including:

all rights currently owned or acquired in the future by ASSIGNORS in any patent or other legal document claiming one or more aspects of the improvements described in the above-identified application(s) whether or not the improvement is explicitly claimed in the above-identified application(s);

all rights currently owned or acquired in the future by ASSIGNORS in any patent or other legal document that claims any of the above-identified application(s) as a priority document, and any patent which results directly or indirectly through any number of links to any of the above-identified patent application(s), including links such as: one or more provisional applications which include the subject matter in the application(s) identified above, one or more non-provisional applications which include subject matter in the application(s) identified above including applications which do not claim priority to the application(s) identified above, one or more continuation or divisional applications, one or more continuation-in-part applications, one or more reissue processes, one or more re-examination proceedings, or any other like processes to any of the above;

and the right to claim priority to one or more of the application(s) identified above for all member countries under any international agreements concerning intellectual property, including

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but not limited to rights such as utility patent, extensions, design patent, utility model registration, inventor's certificates, defensive publications, and the like; and the results of any process granting legal rights within the United States or anywhere in the world.

ASSIGNORS hereby authorize and request the Commissioner for Patents of the United States Patent and Trademark Office, and any officials of foreign or other patent systems whose duty it is to issue patents or related rights on applications as referenced above to issue any patents or document conveying rights arising from any of the above-identified patent application(s) to ASSIGNEE in accordance with the terms of this assignment for ASSIGNEE's sole use and behalf, to the full end of the term for which any patent may be granted, as fully and entirely as the same would have been held by ASSIGNORS had this assignment and sale not been made.

ASSIGNORS hereby grant to ASSIGNEE the right to file applications in any or all countries or regional systems on any of the conveyed intellectual property in the name of the ASSIGNORS, in the name of the ASSIGNEE, or otherwise, as ASSIGNEE may deem advisable.

ASSIGNORS agree that upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE, for full protection and title in and to the improvements hereby transferred including any and all papers desired by ASSIGNEE for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.

ASSIGNORS hereby covenant and agree to: communicate to ASSIGNEE any facts known to those ASSIGNORS respecting said improvements; provide relevant prior art material as required by law; testify in any legal proceeding; sign all lawful papers; execute all divisional, continuation, continuation-in-part, substitute and reissue applications; make all rightful oaths or declarations; and generally do everything possible to obtain, maintain, and enforce proper legal protection for said improvements in all countries, regions, or systems.

ASSIGNORS hereby further covenant and agree that ASSIGNORS have the full right to convey the entire interest herein assigned, and ASSIGNORS have not and will not execute any agreement in conflict herewith.

ASSIGNORS agree that if any provision of this Assignment shall for any reason be held to be invalid or unenforceable, such decision shall not affect, impair or invalidate the remainder of this Assignment but shall be confined in its operation to the provision of this Assignment directly involved in the controversy in which the decision was rendered. The invalid or unenforceable provision shall be reformed so that ASSIGNORS shall have the obligation to perform reasonably in the alternative to give the ASSIGNEE the benefit of its bargain. In the event the invalid or unenforceable provision cannot be reformed, the other provisions or applications of this Assignment shall be given full effect, and the invalid or unenforceable provision shall be deemed struck.

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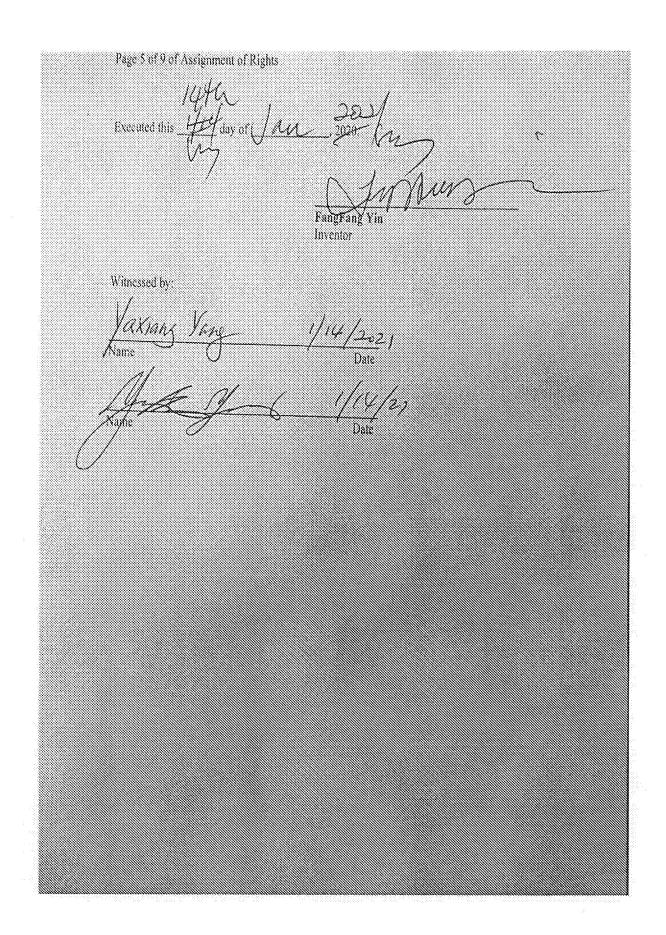
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Executed this Sth. day of January, 2020.  Qingrong Wu Inventor	
Witnessed by:	
Julia Ziace 1/9/2021 Name Date	Jon
Timothy Wilkinson 1/9/2021  Name Date	Temora Harp ///

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Executed this 9th day of December, 2020.

Chunhao Wang
Inventor

Witnessed by:

Yibo Xie 12/9/2020
Name Date

Thomas Cullom E Thomas 12/9/2020
Name Date

Duke Ref.; DU6675US

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Executed this <u>Sto</u> day of <u>Januayy</u>, 202**¢** 

Jiahan Wang Zi Inventor

Witnessed by:

Carazio Shafar Sofami V8/20.

Naufe UUUU

Executed this 4th day of February, 2021 UPAUT

Manisha Palta
Inventor

Witnessed by:

2/4/2021

Name

Date

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Attorney Docket No.: 210-121-UTIL Duke Ref.: DU6675US Page 9 of 9 of Assignment of Rights	
Executed this 4th day of Dec, 2020.	
Yang Sheng Inventor	
Witnessed by:	
Yibo Xie 22 12/4/2020	
Name Date	
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