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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
RAPHAEL JOSEPH WELSH	04/06/2021
DOUGLAS A. THORNTON	04/07/2021

RECEIVING PARTY DATA

Name:	BATTELLE MEMORIAL INSTITUTE	
Street Address:	505 KING AVENUE	
City:	COLUMBUS	
State/Country:	OHIO	
Postal Code:	43201	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16857912

CORRESPONDENCE DATA

Fax Number: (216)363-9001

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2163639000

Email: docketing@faysharpe.com

Correspondent Name: FAY SHARPE LLP **Address Line 1:** 1228 EUCLID AVE FL 5

Address Line 4: CLEVELAND, UNITED STATES 44115-1834

ATTORNEY DOCKET NUMBER:	BATZ 200159US01
NAME OF SUBMITTER:	RICHARD M. KLEIN
SIGNATURE:	/Richard M. Klein/
DATE SIGNED:	04/19/2021

Total Attachments: 6

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PATENT REEL: 055954 FRAME: 0406

EPAS ID: PAT6662522

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ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned, **Raphael Joseph Welsh** of Powell, OH and **Douglas A. Thornton** of Upper Arlington, OH

who has/have created a certain invention for which an application for United States Letters Patent has been

	executed concurrently herewith	
	executed on	
$\overline{\boxtimes}$	filed as U.S. Serial No. 16/857,912 on April 24, 20	020
	filed as International Application No. on	

and is entitled

CONFORMAL/OMNI-DIRECTIONAL DIFFERENTIAL SEGMENTED APERTURE

Do hereby sell, assign and transfer to Battelle Memorial Institute, having a place of business at 505 King Avenue, Columbus, OH 43201, (hereinafter Assignee) its successors, assigns, and legal representatives, the full and exclusive right, title, and interest in and to said invention and said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, reexaminations, extensions thereof, and all other forms of protection relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions agreements, acts, and treaties;

Agree that said Assignee may apply for and receive Letters Patent for said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reexaminations, reissues, and extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Consent 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 and to claim the aforesaid benefit of the right of priority.

IN TESTIMONY WHEREOF I/WE have hereunto set MY/OUR signature(s) on the date(s) indicated below.

Columbus	Ohio	
Signed at the City of	State of	_
April 6, 2021		
on		
18 de est Accordo 1821 de 1		
Raphael Joseph Welsh		
Raphael Joseph Welsh		
Witnesses:		
Roger tranke		
	<u> </u>	
Roger Kanke Printed Name:		
Timed Name.	_	
Micale J Meleski		
	_	
Micah J Meleski		
Printed Name:		

Signed at the City of	State of	
on		
Douglas A. Thornton	_	
Witnesses:		
Printed Name:		
Printed Name:		

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned, **Raphael Joseph Welsh** of Powell, OH and **Douglas A. Thornton** of Upper Arlington, OH

who has/have created a certain invention for which an application for United States Letters Patent has been

	executed concurrently herewith	
	executed on	
$\overline{\boxtimes}$	filed as U.S. Serial No. 16/857,912 on April 24, 2	2020
П	filed as International Application No. on	

and is entitled

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Do hereby sell, assign and transfer to Battelle Memorial Institute, having a place of business at 505 King Avenue, Columbus, OH 43201, (hereinafter Assignee) its successors, assigns, and legal representatives, the full and exclusive right, title, and interest in and to said invention and said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, reexaminations, extensions thereof, and all other forms of protection relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions agreements, acts, and treaties;

Agree that said Assignee may apply for and receive Letters Patent for said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reexaminations, reissues, and extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

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IN TESTIMONY WHEREOF I/WE have hereunto set MY/OUR signature(s) on the date(s) indicated below.

Signed at the City of	State of	
on		
Raphael Joseph Welsh		
Witnesses:		
Printed Name:		
Printed Name:		

RECORDED: 04/19/2021

Attorney Docket No. 18100 / BATZ 200159US01 Page 3

Signed at the City of	State of Ohio
April 7, 2021 on	
Douglas a. thornton/	
Douglas A. Thornton	
Witnesses:	
Stylenic that	
Printed Name:	· -
Cheryl-lynn May	_
Cheryl-Lynn May Printed Name:	_