

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3316298

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHIA-LING CHEN	04/02/2010
DONGLLEI FAN	03/23/2010
ROBERT CHARLES CAMMARATA	04/02/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE JOHNS HOPKINS UNIVERSITY
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<b>Postal Code:</b>	21218
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14675306
<b>CORRESPONDENCE DATA</b>	
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<b>NAME OF SUBMITTER:</b>	HENRY J. DALEY
<b>SIGNATURE:</b>	/Henry J. Daley/
<b>DATE SIGNED:</b>	04/17/2015
<b>Total Attachments: 2</b>	
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**WORLDWIDE ASSIGNMENT**

**WHEREAS, Chia-Ling CHIEN, Donglei FAN, and Robert Charles CAMMARATA, hereinafter (collectively) referred to as the Assignor, have invented a certain improvement relating to SYSTEM AND METHOD FOR PRECISION TRANSPORT, POSITIONING, AND ASSEMBLING OF LONGITUDINAL NANO-STRUCTURES, for which said Assignor has caused an application for a United States Patent to be prepared,**

[ ] the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the U.S. Patent and Trademark Office;

[ X ] said U. S. Provisional Application having been filed in the U.S. Patent and Trademark Office on March 3, 2010, and given Application No. 61/157.032.

[ X ] said application having been filed under the Patent Cooperation Treaty on March 3, 2010, and given Application No. PCT/US2010/026077 the United States of America having been designated.

**AND WHEREAS, The Johns Hopkins University, 3400 N. Charles Street, Baltimore, Maryland 21218, hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any divisions and continuations thereof, and in and to said invention and any patents which may be granted therefor, including any renewals, reissues and prolongations thereof;**

**NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire and exclusive right, title, and interest for the United States in and to the invention, the application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, to Assignee; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made.**

Assignor further hereby assigns, sells and transfers, and has assigned, sold, and transferred to Assignee, its successors and assigns, the entire right, title and interest in all countries of the world, in and to the invention and in and to the application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the invention, or patents resulting therefrom, insofar as its interest is concerned, to the Assignee, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made.

The Assignor further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

IN WITNESS WHEREOF, each individual collectively referred to as Assignor has caused this Assignment to be executed,

EXECUTED this 2 day of April, 2010.

ASSIGNOR: Chia-Ling CHIEN

Signature: [Signature]

Name: Chia-Ling Chien

WITNESS:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

EXECUTED this 23 day of March, 2010.

ASSIGNOR: Donglei FAN

Signature: [Signature]

Name: Donglei Fan

WITNESS:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

EXECUTED this 2 day of April, 2010.

ASSIGNOR: Robert Charles CAMMARATA

Signature: [Signature]

Name: Robert Charles Cammarata

WITNESS:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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