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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
ELISABETH R. SHANBLATT	11/16/2011
DAVID G. GRIER	11/22/2011

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13411142

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ATTORNEY DOCKET NUMBER:	046434-0293		
NAME OF SUBMITTER:	MATTHEW E. MARTIN		
SIGNATURE:	/Matthew E. Martin/		
DATE SIGNED:	09/05/2014		

Total Attachments: 6

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ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

New York University 650 First Avenue New York, New York 10016

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

Extended and Knotted Optical Traps in Three Dimensions

as set forth in this United States Patent Application

U.S. Provisional Patent Application No. 61/464,445, filed March 4, 2011 and U.S. Provisional Patent Application No. 61/451,705, filed March 11, 2011,

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

Page 1 of 3

CHI2_2521253.1 4814-4268-7500.1 ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Page 2 of 3

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State of Colorado	Chsaleth R. Shanblatt Elisabeth R. Shanblatt
County of Boulder	•
tot said countly beisolidity appeared ELIZADETH K. SHANKLATT	efore me, (a notary public in and who proved to me oh the basis of satisfactory evidence to be the person to me that he/she executed the same in his/her authorized capacity, and on behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal. Signature	
My Commission Expires: 3-29-2014	
Executed this day of	,20 .
Gr. 4 G	DAVID G. GRIER
State of)	DAVID G. GRIER
County of)	
County of	fore me,
County of	fore me,
On this day of 20 be for said county), personally appeared DAVID G. GRIER, who proved t subscribed to the within instrument and acknowledged to me that he/sh signature on the instrument the person, or the entity upon behalf of white the person is the entity of the signature of the instrument the person is the entity of	fore me,
On this day of	fore me,

Page 3 of 3

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Page 2 of 3

Executed this	day of	, 20		
	•		·	
State of	1	EI	JSABETH R. SH	ANBLATT
County of				
On this day of for said county), personally appeared E whose name is subscribed to the within by his/her signature on the instrument to	20 BLIZABETH R SHANBLAT Instrument and acknowledg the person, or the entity upon	before ma,	on the basis of satisfactory scouted the same in his her broon seted, oxeguted the in	(a notaty public in and evidence to be the person authorized capacity, and the intrument
WITNESS my hand and official seal.				
Signature	and the same of th			
My Commission Expires:				
(Seal)			,	
Executed this 22		ASEC 2011.	DAVATA	
State of New York County of New York				113
On this 22 day of 10 subscribed to the within instrument and signature on the instrument the person, o	AVID O. ORIER, who prove	efore mo, Local of the basis of the executed the same high the person acted.	satisfactory evidence to be in his/her authorized capac executed the instrument.	_(a notary public in and the person whose name is fity, and that by his/her
WITNESS my hand and official real.				•
Signature Porter to u	-			
ARY RUBLIC STATE OF NEW YORK (S QUEENS COUNTY U.C. #01DES184887 IM. EXP. TYNS				

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