

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5998694

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ABHINAV RAO	03/02/2020
ANASTASIOS JOHN HART	01/23/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
<b>Street Address:</b>	77 MASSACHUSETTS AVENUE
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02139
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16711524
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(513)945-3169
<i>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.</i>	
<b>Phone:</b>	6174631614
<b>Email:</b>	foreman.am@pg.com
<b>Correspondent Name:</b>	THE PROCTER & GAMBLE COMPANY GLOBAL IP S
<b>Address Line 1:</b>	CENTRAL BUILDING, C9
<b>Address Line 2:</b>	ONE PROCTER AND GAMBLE PLAZA
<b>Address Line 4:</b>	CINCINNATI, OHIO 45202
<b>ATTORNEY DOCKET NUMBER:</b>	15429M
<b>NAME OF SUBMITTER:</b>	JOANNE N. PAPPAS
<b>SIGNATURE:</b>	/Joanne N. Pappas/
<b>DATE SIGNED:</b>	03/05/2020
<b>Total Attachments: 4</b>	
source=15429M_MIT_Assignment#page1.tif	
source=15429M_MIT_Assignment#page2.tif	
source=15429M_MIT_Assignment#page3.tif	
source=15429M_MIT_Assignment#page4.tif	

## GLOBAL GENERAL ASSIGNMENT


WHEREAS I/we, the undersigned inventor(s) hereby declare that I/we, alone or jointly with the other inventor(s) identified herein, have made certain invention(s), as set forth in a patent application (including industrial designs and utility models), whether claimed or unclaimed, entitled CUTTING-EDGE STRUCTURES AND METHOD OF MANUFACTURING CUTTING-EDGE STRUCTURES, Attorney's Docket No. 15429P and filed in the United States Patent Office as Serial Number 62/780,141, on December 14, 2018. (I/we grant the hereinafter named assignee and/or any person authorized thereby, the power to insert in this document, the Serial Number and filing date of each application identified above when ascertained.) having named inventors:

Neville SONNENBERG of One Gillette Park, Boston, MA 02127 USA  
Paul KITCHEN of 431 Critchett Road, Candia, NH 03034 USA  
Abhinav RAO of 77 Massachusetts Avenue, Cambridge, MA 02139 USA  
Anastasios John HART of 77 Massachusetts Avenue, Cambridge, MA 02139 USA

I/We made said invention(s) set forth in said patent application while employed by, or otherwise under an obligation to assign said invention(s) to MASSACHUSETTS INSTITUTE OF TECHNOLOGY of 77 Massachusetts Avenue, Cambridge, MA 02139 or one of its Affiliates, and acknowledge my/our obligation at the time the invention(s) was made to assign said invention(s) to MASSACHUSETTS INSTITUTE OF TECHNOLOGY or the Affiliate, respectively. Pursuant to said obligation (and in the case of employment by or obligation to the Affiliate, at the request of the Affiliate), and/or for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I/we assign to MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors and assigns, my/our entire right, title, and interest, in the United States and throughout the world, in, to and under said invention(s) and all patents, patent applications, patent rights, and inventor's certificates thereof, therefore, and therein, including without limitation said application, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all patents which may be granted for said invention(s) by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefore (including the right to claim priority of the filing date of said application in the United States and/or under international conventions), as fully and completely as the same would have been held by me/us had this assignment not been made. My/our entire right, title and interest shall vest irrevocably in MASSACHUSETTS INSTITUTE OF TECHNOLOGY. I/We further agree to, without additional compensation but at no expense to me/us, to execute or assent to any and all applications for said invention(s), execute all other legal documents as may be necessary or desirable to vest and maintain the enjoyment of the rights assigned, and to cooperate with MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors and assigns, or as said Company may direct, in any pre-grant, post-grant or other proceedings relating to the rights assigned herein.

I/We request and authorize the Commissioner of Patents and Trademarks and/or appropriately empowered officials of foreign countries to issue any and all Patent(s) and/or letters patent(s) which may be granted for said invention(s) herein assigned and as set forth in U. S. Application Serial Number 62/780,141 to MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors or assigns, as assignee of my/our entire right, title, and interest in said Patent(s).

This GLOBAL GENERAL ASSIGNMENT is effective as of the earlier of 1) the date of execution shown below, or 2) the filing date of the first-filed of said patent application(s).

Signed:   
Abhinav RAO

03/02/2020  
Date

STATEMENT OF WITNESS:

I declare that I was personally present and did see Abhinav RAO duly sign and execute the above assignment. I make this Statement conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath or affirmation, and with the knowledge that knowingly making false statements herein may be punishable by law.

Sarah Jones-Hayes  
Witness printed name

  
Witness signature

Signed: \_\_\_\_\_  
Anastasios John HART

\_\_\_\_\_  
Date

STATEMENT OF WITNESS:

I declare that I was personally present and did see Anastasios John HART duly sign and execute the above assignment. I make this Statement conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath or affirmation, and with the knowledge that knowingly making false statements herein may be punishable by law.

\_\_\_\_\_  
Witness printed name

\_\_\_\_\_  
Witness signature

Assignment\_externalcompany\_inventor.docx  
Rev. May 2017

G L O B A L   G E N E R A L   A S S I G N M E N T

WHEREAS I/we, the undersigned inventor(s) hereby declare that I/we, alone or jointly with the other inventor(s) identified herein, have made certain invention(s), as set forth in a patent application (including industrial designs and utility models), whether claimed or unclaimed, entitled CUTTING-EDGE STRUCTURES AND METHOD OF MANUFACTURING CUTTING-EDGE STRUCTURES, Attorney's Docket No. 15429P and filed in the United States Patent Office as Serial Number 62/780,141, on December 14, 2018. (I/we grant the hereinafter named assignee and/or any person authorized thereby, the power to insert in this document, the Serial Number and filing date of each application identified above when ascertained.) having named inventors:

Neville SONNENBERG of One Gillette Park, Boston, MA 02127 USA  
Paul KITCHEN of 431 Critchett Road, Candia, NH 03034 USA  
Abhinav RAO of 77 Massachusetts Avenue, Cambridge, MA 02139 USA  
Anastasios John HART of 77 Massachusetts Avenue, Cambridge, MA 02139 USA

I/We made said invention(s) set forth in said patent application while employed by, or otherwise under an obligation to assign said invention(s) to MASSACHUSETTS INSTITUTE OF TECHNOLOGY of 77 Massachusetts Avenue, Cambridge, MA 02139 or one of its Affiliates, and acknowledge my/our obligation at the time the invention(s) was made to assign said invention(s) to MASSACHUSETTS INSTITUTE OF TECHNOLOGY or the Affiliate, respectively. Pursuant to said obligation (and in the case of employment by or obligation to the Affiliate, at the request of the Affiliate), and/or for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I/we assign to MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors and assigns, my/our entire right, title, and interest, in the United States and throughout the world, in, to and under said invention(s) and all patents, patent applications, patent rights, and inventor's certificates thereof, therefore, and therein, including without limitation said application, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all patents which may be granted for said invention(s) by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefore (including the right to claim priority of the filing date of said application in the United States and/or under international conventions), as fully and completely as the same would have been held by me/us had this assignment not been made. My/our entire right, title and interest shall vest irrevocably in MASSACHUSETTS INSTITUTE OF TECHNOLOGY. I/We further agree to, without additional compensation but at no expense to me/us, to execute or assent to any and all applications for said invention(s), execute all other legal documents as may be necessary or desirable to vest and maintain the enjoyment of the rights assigned, and to cooperate with MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors and assigns, or as said Company may direct, in any pre-grant, post-grant or other proceedings relating to the rights assigned herein.

I/We request and authorize the Commissioner of Patents and Trademarks and/or appropriately empowered officials of foreign countries to issue any and all Patent(s) and/or letters patent(s) which may be granted for said invention(s) herein assigned and as set forth in U. S. Application Serial Number 62/780,141 to MASSACHUSETTS INSTITUTE OF TECHNOLOGY, its legal representatives, successors or assigns, as assignee of my/our entire right, title, and interest in said Patent(s).

This GLOBAL GENERAL ASSIGNMENT is effective as of the earlier of 1) the date of execution shown below, or 2) the filing date of the first-filed of said patent application(s).

Signed: \_\_\_\_\_  
Abhinav RAO

\_\_\_\_\_  
Date


STATEMENT OF WITNESS:

I declare that I was personally present and did see Abhinav RAO duly sign and execute the above assignment. I make this Statement conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath or affirmation, and with the knowledge that knowingly making false statements herein may be punishable by law.

\_\_\_\_\_  
Witness printed name


\_\_\_\_\_  
Witness signature

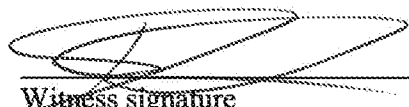
Signed:   
Anastasios John HART

  
\_\_\_\_\_  
Date

STATEMENT OF WITNESS:

I declare that I was personally present and did see Anastasios John HART duly sign and execute the above assignment. I make this Statement conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath or affirmation, and with the knowledge that knowingly making false statements herein may be punishable by law.

  
\_\_\_\_\_  
Witness printed name

  
\_\_\_\_\_  
Witness signature