

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2836410

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
PHILIP N. BENFEY	02/26/2014
RICHARD W. TWIGG III	03/06/2014
ROBERT L. CLARK JR.	03/21/2014
GREGORY K. FRICKE	04/12/2014
SCOTT J. KENNEDY	03/03/2014
RECEIVING PARTY DATA	
Name:	DUKE UNIVERSITY
Street Address:	2138 CAMPUS DRIVE
City:	DURHAM
State/Country:	NORTH CAROLINA
Postal Code:	27708
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13680546
CORRESPONDENCE DATA	
Fax Number:	(314)726-7501
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	314-726-7500
Email:	BGPefile@hdp.com
Correspondent Name:	HARNESS, DICKEY & PIERCE, P.L.C.
Address Line 1:	7700 BONHOMME AVENUE
Address Line 2:	SUITE 400
Address Line 4:	ST. LOUIS, MISSOURI 63105
ATTORNEY DOCKET NUMBER:	5089-000073-US-COC
NAME OF SUBMITTER:	BRIAN G. PANKA
SIGNATURE:	/Brian G. Panka/
DATE SIGNED:	04/30/2014
Total Attachments: 8	
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PATENT

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CONFIRMATORY ASSIGNMENT

WHEREAS, the undersigned (referred to hereinafter as "Assignor") has contributed to an invention/discovery entitled "A Rootarray for testing responses to stimuli at high temporal and spatial resolution" (Duke University File #2680) (referred to hereinafter as the "Invention"), and is a joint inventor on patents and patent applications directed toward the Invention, as listed in the attached APPENDIX.

WHEREAS, Assignor was employed by Duke University, a nonprofit corporation formed under the laws of North Carolina and located in Durham, North Carolina 27708, (referred to hereinafter as "Assignee") at the time of contributing to the Invention.

WHEREAS, Assignor was obligated as an employee of Assignee, under Assignee policy, to assign Assignor's full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, to Assignee, and to the best of Assignor's understanding, did so assign full and exclusive right, title and interest in the United States of America and throughout the world in the Invention to Assignee (referred to hereinafter as "Assignment #1").

RWT
Wetherell WHEREAS, following Assignment #1, Assignee returned, transferred, and assigned full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, back to Phillip N. Benfey, Richard ~~Wetherell~~ Twigg III, Robert Lewis Clark, Jr., Scott J. Kennedy, and Gregory Fricke, which includes Assignor (referred to hereinafter as "Assignment #2").

WHEREAS, following Assignment #2, Assignor assigned Assignor's full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, including the patents and patent applications listed in the attached APPENDIX, to GrassRoots Biotechnology, Inc. (referred to hereinafter as "Assignment #3").

WHEREAS, following Assignment #3, GrassRoots Biotechnology, Inc. changed its name to GrassRoots Biotechnology, LLC (referred to hereinafter as "Name Change"), such that the full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, was transferred to GrassRoots Biotechnology, LLC.

WHEREAS, following the Name Change, GrassRoots Biotechnology, LLC assigned full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, to Monsanto Technology LLC.

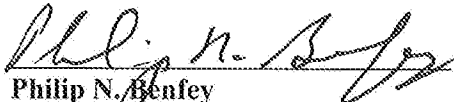
NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, to the extent that Assignor did not assign Assignor's full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, to Assignee under Assignment #1, Assignor did assign, and hereby confirms such assignment of, Assignor's full and exclusive right, title and interest in the United States of America and throughout the world in the Invention, and to the patents and patent applications directed thereto, to GrassRoots Biotechnology, Inc., and its successors in interest, under Assignment #3, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the Invention as described in the aforementioned patents and patent applications, to the aforementioned patents and patent applications themselves, and

all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforementioned patents and patent applications, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforementioned patents and patent applications and the subject matter disclosed therein, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights.

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of defending the validity of or protecting title to the Invention, the aforementioned patents and patent applications, or Letters Patent therefor, and to testify in support thereof, for the benefit of the Assignee and its successors in interest (including the current assignee, Monsanto Technology LLC) without further or other compensation than that above set forth.

Assignor further covenants not to challenge, or assist or participate in any third party challenge to, the Invention, or any patent application or patent thereon, whether by litigation, post grant review, inter partes review, covered business method review, reexamination, or otherwise.

CONFIRMATORY ASSIGNMENT


Philip N. Benfey

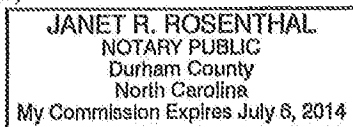
State of North Carolina)
County of Durham) ss.

On this 26th day of February, 2014, before me personally appeared the foregoing individual, who executed the foregoing instrument and who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Notary Public,

Acting in the County Of Durham

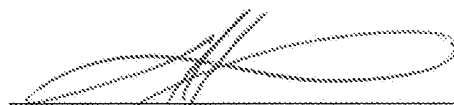
(seal)



State Of North Carolina

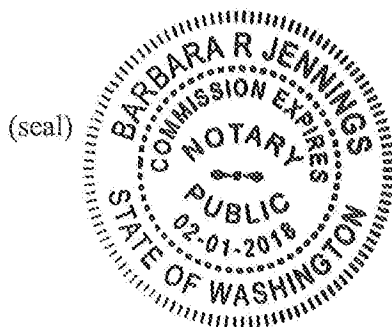
My Commission Expires 7/6/2014

CONFIRMATORY ASSIGNMENT


Richard W. Twigg III

State of Washington)
County of San Juan) ss.

On this 6th day of March, 2014, before me personally appeared the foregoing individual, who executed the foregoing instrument and who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.




Notary Public, Barbara R. Jennings

Acting in the County Of San Juan

State Of Washington

My Commission Expires 2-1-2018

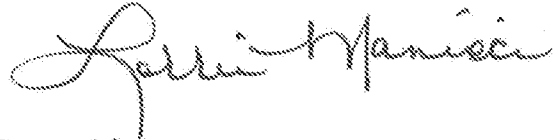
CONFIRMATORY ASSIGNMENT


Robert L. Clark, Jr.

State of NEW YORK)
) ss.
County of MONROE)

On this 21ST day of MARCH, 2014, before me personally appeared the foregoing individual, who executed the foregoing instrument and who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Notary Public,



(seal)

Acting in the County Of

State Of

My Commission Expires

LORRIE MANIOCI
NOTARY PUBLIC-STATE OF NEW YORK
No. 01MA6089313
Qualified in Monroe County
My Commission Expires March 24, 2018

CONFIRMATORY ASSIGNMENT

Gregory K. Fricke
Gregory K. Fricke

State of North Carolina)
County of Durham) ss.

On this 12 day of April, 2014, before me personally appeared the foregoing individual, who executed the foregoing instrument and who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

(seal)

Justin M. Turner NOTARY PUBLIC Durham County, North Carolina My Commission Expires 7-13-2018

Notary Public, [Signature]

Acting in the County Of Durham

State Of North Carolina

My Commission Expires 07/13/2018

CONFIRMATORY ASSIGNMENT

Scott J. Kennedy
Scott J. Kennedy

State of North Carolina)
County of Durham) ss.

On this 3rd day of March, 2014, before me personally appeared the foregoing individual, who executed the foregoing instrument and who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

(seal)
Nolan Smock
NOTARY PUBLIC
Durham County, North Carolina
My Commission Expires 8-01-2018

Notary Public, Nolan Smock

Acting in the County Of Durham

State Of NC

My Commission Expires 8/1/18

APPENDIX

Country	Serial No.	Filing Date	Patent No.	Issue Date	Title
US	60/860,150	11/20/2006			Plant Growth and Imaging Device and Related Methods and Computer Program Products
US	11/942,185	11/19/2007	7,937,891	05/10/2011	Plant Growth and Imaging Device and Related Methods and Computer Program Products
US	13/081,013	04/06/2011	8,312,673	11/20/2012	Plant Growth and Imaging Device and Related Methods and Computer Program Products
US	13/680,546	11/19/2012			Plant Growth and Imaging Device and Related Methods and Computer Program Products
WIPO	PCT/US2007/024123	11/19/2007			Plant Growth and Imaging Device and Related Methods and Computer Program Products
Australia	2007322017	05/29/2008			Plant Growth and Imaging Device and Related Methods and Computer Program Products
Canada	2,670,273	05/29/2008			Plant Growth and Imaging Device and Related Methods and Computer Program Products
Europe	07 862 105.9	06/15/2009			Plant Growth and Imaging Device and Related Methods and Computer Program Products