

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Ka-Yiu SAN</td> <td>03/05/2013</td> </tr> <tr> <td>George N. BENNETT</td> <td>03/06/2013</td> </tr> <tr> <td>Jian WANG</td> <td>03/06/2013</td> </tr> </tbody> </table>	Name	Execution Date	Ka-Yiu SAN	03/05/2013	George N. BENNETT	03/06/2013	Jian WANG	03/06/2013	
Name	Execution Date								
Ka-Yiu SAN	03/05/2013								
George N. BENNETT	03/06/2013								
Jian WANG	03/06/2013								
RECEIVING PARTY DATA									
Name:	William Marsh Rice University								
Street Address:	6100 Main Street								
City:	Houston								
State/Country:	TEXAS								
Postal Code:	77005								
PROPERTY NUMBERS Total: 1									
Property Type	Number								
Application Number:	13696465								
CORRESPONDENCE DATA									
Fax Number:									
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
Phone:	8323697852								
Email:	patent@boulwarevaloir.com								
Correspondent Name:	Boulware & Valoir								
Address Line 1:	three Riverway, Suite 950								
Address Line 4:	Houston, TEXAS 77056								
ATTORNEY DOCKET NUMBER:	RICE:2010-071-03US								
NAME OF SUBMITTER:	Sparkle T Ellison								
Total Attachments: 5 source=201007103 signed#page1.tif source=201007103 signed#page2.tif source=201007103 signed#page3.tif source=201007103 signed#page4.tif source=201007103 signed#page5.tif									

OP \$40.00 13696465

**ASSIGNMENT**

**WHEREAS**, we, Ka-Yiu SAN; George N. BENNETT and Jian WANG, hereinafter referred to as "ASSIGNORS," are joint inventors of the invention, patent applications and patents described in attached Exhibit A.

**WHEREAS**, William Marsh Rice University ("ASSIGNEE") at 6100 Main Street, Houston, TX, 77005, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and applications and in any letters patent that may be granted on the same;

**THEREFORE**, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby assign to ASSIGNEE the entire right, title and interest in and to said invention, said applications and any and all letters patent which may be granted for said invention anywhere throughout the world, including utility patents, petty patents and design patents, and in any and all divisions, continuations, continuations-in-part and related patents thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said application to which said foreign applications are entitled, said invention, applications and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment not been made.

**ASSIGNORS** hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE.

**ASSIGNORS** agree at Assignee's expense to execute all instruments and documents required for the making and prosecution of patents and patent applications, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

**THE PARTIES** hereby grant Boulware & Valoir the power to perfect and record this assignment and to insert any further patent identification that may be necessary or desirable in order to record this assignment.

Rice: 2010-071-03US

IN TESTIMONY WHEREOF, ASSIGNORS have signed on the date indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 5 day of March, 2013.

Ka-Yiu San

Declarant: Ka-Yiu SAN

**IN TESTIMONY WHEREOF**, ASSIGNORS have signed on the date indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 6<sup>th</sup> day of March, 2013.

A handwritten signature in cursive script that reads "George Bennett". The signature is written in dark ink and is positioned above a horizontal line.

Declarant: George N. BENNETT

IN TESTIMONY WHEREOF, ASSIGNORS have signed on the date indicated.

IN WITNESS WHEREOF, I have hereunto set my hand this 6 day of March, 2013.

Jian Wang  
Declarant: Jian WANG

**EXHIBIT A**

<b>APPLICATION NUMBER</b>	<b>FILING DATE</b>	<b>COUNTRY</b>	<b>TITLE</b>
61/356909	June 21, 2010	US	Engineered Bacteria Produce Succinate from Sucrose
PCT/US11/41074	June 20, 2011	WO	Engineered Bacteria Produce Succinate from Sucrose
13/696,465	Nov. 6, 2012	US	Engineered Bacteria Produce Succinate from Sucrose