

PATENT ASSIGNMENT

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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>Shishir Chundawat</td> <td>05/16/2011</td> </tr> <tr> <td>Leonardo Sousa</td> <td>05/16/2011</td> </tr> <tr> <td>Albert M. Cheh</td> <td>05/12/2011</td> </tr> <tr> <td>Venkatesh Balan</td> <td>05/16/2011</td> </tr> <tr> <td>Bruce Dale</td> <td>05/16/2011</td> </tr> </tbody> </table>		Name	Execution Date	Shishir Chundawat	05/16/2011	Leonardo Sousa	05/16/2011	Albert M. Cheh	05/12/2011	Venkatesh Balan	05/16/2011	Bruce Dale	05/16/2011
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<table border="1"> <tr> <td>Name:</td> <td>Board of Trustees of Michigan State University</td> </tr> <tr> <td>Street Address:</td> <td>450 Administration Building</td> </tr> <tr> <td>City:</td> <td>East Lansing</td> </tr> <tr> <td>State/Country:</td> <td>MICHIGAN</td> </tr> <tr> <td>Postal Code:</td> <td>48824-1046</td> </tr> </table>		Name:	Board of Trustees of Michigan State University	Street Address:	450 Administration Building	City:	East Lansing	State/Country:	MICHIGAN	Postal Code:	48824-1046		
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CORRESPONDENCE DATA													
Fax Number: <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 605-385-0169 Email: bclark@clarkiplaw.com Correspondent Name: Clark IP Law, PLC Address Line 1: 1631 Crestwood Circle Address Line 4: Ames, IOWA 50010													
ATTORNEY DOCKET NUMBER:	3000.019US1												
NAME OF SUBMITTER:	Jonathan Ferguson												
Total Attachments: 7													

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ASSIGNMENT

WHEREAS, We, Shishir Chundawat, residing at 2739 Trappers Cove Trail, Apt 3B, Lansing, MI 48910, and Leonardo Sousa, residing at 1026 Downer Ave., Apt 3A, Lansing, MI 48912, and Albert M. Cheh, residing at 5610 Glenwood Road, Bethesda, MI 20817, and Venkatesh Balan, residing at 257 N. Hagadorn Road, East Lansing, MI 48823, and Bruce Dale, residing at 2865 Hagadorn Road, Mason, MI 48854, made certain new and useful inventions and improvements which are described in an application for PCT Letters Patent on **April 19, 2011**, which application was assigned PCT patent application serial number **PCT/US2011/033079**, and is entitled DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME; and which are described in an application for U.S. Letters Patent on **April 19, 2010**, which was assigned U.S. patent application serial number **61/325,560**, and is entitled DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME;

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do hereby:

SELL, ASSIGN AND TRANSFER to Board of Trustees of Michigan State University (the "Assignee"), a corporation of the State of Michigan, having a place of business at 450 Administration Building, East Lansing, MI 48824-1046, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for PCT Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

ASSIGNMENT

Client Ref. No. TEC2010-0090-01PCT

Assignors: Shashir Chundawat et al

Title: DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

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Docket No. 3000.019WG1

Serial Number: PCT/US2011/033079

Additional Application Information

No U.S. Non-Provisional claim for priority is being made at this time.

No International or foreign claim for priority is being made at this time.

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

PATENT

REEL: 029155 FRAME: 0804

ASSIGNMENT

Client Ref. No. TEC2010-0090-01PCT

Assignors: Shishir Chundawat et al.

Title: DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

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Docket No. 3000.019WG1

Serial Number: PCT/US2011/033079

IN TESTIMONY WHEREOF, I have hereunto set my hand this 16 day of

May, 2011.

Shishir
Shishir Chundawat

STATE OF MICHIGAN

COUNTY OF INGHAM

On this 16th day of May, 2011 before me personally appeared Shishir Chundawat, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Catherine Johnson
Notary Public

CATHERINE JOHNSON
Notary Public, State of Michigan
County of Ingham
My Commission Expires 09-10-2014
Acting in the county of Ingham

PATENT

REEL: 029155 FRAME: 0805

ASSIGNMENT

Client Ref. No. TEC2010-0090-01PCT

Assignors: Shashir Chundawat et al

Title: DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

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Docket No. 3000.019WG1

Serial Number: PCT/US2011/033079

IN TESTIMONY WHEREOF, I have hereunto set my hand this 16 day of

May, 2011.

Leonardo da Costa Sousa

Leonardo Sousa

STATE OF Michigan)
Ingham)ss

COUNTY OF Ingham)

On this 16th day of May, 2011, before me personally appeared Leonardo Sousa, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Catherine Johnson
Notary Public

CATHERINE JOHNSON
Notary Public, State of Michigan
County of Ingham
My Commission Expires 09-10-2014
Acting in the county of Ingham

PATENT

REEL: 029155 FRAME: 0806

ASSIGNMENT

Client Ref. No. TEC2010-0090-01PCT

Assignors: Shishir Chundawat et al.

Title: DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

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Docket No: 3000.019WO1

Serial Number: PCT/US2011/033079

IN TESTIMONY WHEREOF, I have hereunto set my hand this 12 day of

MAY, 20 11.

Albert M. Cheh

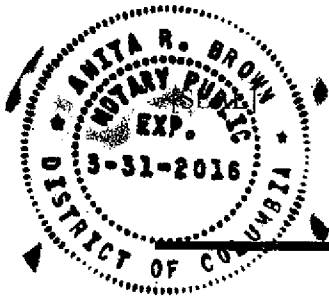
Albert M. Cheh

STATE OF District of Columbia

)ss

COUNTY OF _____)

On this 12th day of May, 20 11 before me personally appeared Albert M. Cheh, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.



Anita R. Brown
Notary Public

ASSIGNMENT

Client Ref. No. TBC2010-0090-01PCT

Assignors: Shishir Choudhary et al.

Title: DIGESTIBLE LIGNOCELLULOSE BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

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Docket No. 3000.019WC1

Serial Number: PCT/US2011/033079

IN TESTIMONY WHEREOF, I have hereunto set my hand this 16 day of

May, 20 11.

Venkatesh Balan

Venkatesh Balan

STATE OF Michigan,

)ss

COUNTY OF Ingham,

On this 16th day of May, 20 11 before me personally appeared Venkatesh Balan, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Catherine Johnson

Notary Public

CATHERINE JOHNSON
Notary Public, State of Michigan

My Commission Expires 09-10-2014
Acting in the county of Ingham

PATENT

REEL: 029155 FRAME: 0808

ASSIGNMENT

Client Ref. No. TEC2010-0090-01PCT

Assignors: Shishir Chundawat et al.

Title: DIGESTIBLE LIGNOCELLULOSIC BIOMASS AND EXTRACTIVES AND METHODS FOR PRODUCING SAME

Page 7 of 7

Docket No. 2000.019WO1

Serial Number: PCT/US2011/033079

IN TESTIMONY WHEREOF, I have hereunto set my hand this 16th day of MAY, 2011.

Bruce Dale

Bruce Dale

STATE OF Michigan

)ss

COUNTY OF Ingham

On this 16th day of May, 2011, before me personally appeared Bruce Dale, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Catherine Johnson

Notary Public

CATHERINE JOHNSON

Notary Public, State of Michigan

County of Ingham

My Commission Expires 08-10-2014

Acting in the county of Ingham