

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4992082

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MALLORY EMBREE	05/24/2018
CAMERON MARTINO	05/23/2018
NORMAN PITT	05/23/2018
JORDAN EMBREE	05/23/2018
COREY DODGE	05/23/2018
RECEIVING PARTY DATA	
Name:	ASCUS BIOSCIENCES, INC.
Street Address:	6450 LUSK BOULEVARD
Internal Address:	SUITES E109/209
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	15965661
PCT Number:	US1829953
CORRESPONDENCE DATA	
Fax Number:	(202)842-7899
<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>	
Phone:	(202) 728-7017
Email:	zpatdcdocketing@cooley.com
Correspondent Name:	COOLEY LLP, ATTN: PATENT GROUP
Address Line 1:	1299 PENNSYLVANIA AVENUE, NW
Address Line 2:	SUITE 700
Address Line 4:	WASHINGTON, D.C. 20004
ATTORNEY DOCKET NUMBER:	ASBI-005/02US 325233-2047
NAME OF SUBMITTER:	JEFFREY R. BOLLAND
SIGNATURE:	/Jeffrey R. Bolland/
DATE SIGNED:	06/05/2018

PATENT

Total Attachments: 9

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ASSIGNMENT

Mallory EMBREE, having a mailing address of c/o Ascus Biosciences, Inc., 6450 Lusk Blvd., Suites E109/209, San Diego, CA 92121; **Cameron MARTINO**, having a mailing address of c/o Ascus Biosciences, Inc., 6450 Lusk Blvd., Suites E109/209, San Diego, CA 92121; **Norman PITT**, having a mailing address of c/o Ascus Biosciences, Inc., 6450 Lusk Blvd., Suites E109/209, San Diego, CA 92121; **Jordan EMBREE**, having a mailing address of c/o Ascus Biosciences, Inc., 6450 Lusk Blvd., Suites E109/209, San Diego, CA 92121 and **Corey DODGE**, having a mailing address of c/o Ascus Biosciences, Inc., 6450 Lusk Blvd., Suites E109/209, San Diego, CA 92121 (each referred to as "Assignor") have made an invention(s) (the "Invention(s)") set forth in an application for patent entitled METHODS FOR SUPPORTING GRAIN INTENSIVE AND/OR ENERGY INTENSIVE DIETS IN RUMINANTS BY ADMINISTRATION OF A SYNTHETIC BIOENSEMBLE OF MICROBES OR PURIFIED STRAINS THEREOF, and which is a:

- (1) ☐ provisional application
 - (a) ☐ to be filed herewith; or
 - (b) ☐ bearing Application No. , and filed on ;
- (2) ☒ non-provisional application
 - (a) ☐ to be filed herewith; or
 - (b) ☒ bearing Application No. **15/965,661**, and filed on **April 27, 2018**; and/or
- (3) ☒ PCT application
 - (a) ☒ bearing Application No. **PCT/US18/29953**, and filed on **April 27, 2018**.
and/or
- (4) ☐ attached hereto.

WHEREAS, Ascus Biosciences, Inc., a having its principal place of business at 6450 Lusk Boulevard, Suites E109/209, San Diego, CA 92121, its successors, legal representatives and assigns, (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention(s); the application(s) for patent identified above; the right to file applications for patent of the United States or other countries on the Invention(s); any application(s) for patent of the United States or other countries claiming priority to, and/or the benefit of, these applications; any provisional or other right to recover any and all past, present, and future damages, including royalties, for any and all past, present, and future infringements of these application(s); and any and all patent(s) of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee or a predecessor in interest of the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee or a predecessor in interest of the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

(a) the Invention(s);

(b) the application(s) for patent identified above;

(c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property, and under the Patent Cooperation Treaty, and all rights of claiming priority in any country of the world;

(d) any application(s) for patent of the United States or other countries claiming the Invention(s);

(e) any application(s) for patent of the United States or other countries claiming priority to, and/or the benefit of, at least one of the application(s) for patent identified above or any application(s) for patent claiming the Invention(s), including any priority application(s), substitute application(s), division(s), continuation(s), and continuation(s)-in-part;

(f) any provisional or other right to recover any and all past, present, and future damages, including royalties, for any and all past, present, and future infringements of any application for patent identified in the preceding paragraphs (b)-(e) and of any and all patent(s) granted based thereon in the United States and in all other countries; and

(g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b)-(e), including any reissue(s), reexamination(s), revival(s), renewal(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful

owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein, and that Assignor will not make or enter into any assignment, sale, agreement or encumbrance which would conflict with these presents.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said application(s), and said patent(s), including interference and derivation proceedings, and any post-grant proceedings (e.g., opposition proceedings, post-grant reviews, *Inter partes* reviews, supplemental examinations, etc.) without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests the attorneys of COOLEY LLP to insert in the spaces provided above the filing date, the application number, and the attorney docket number of the application(s) identified above when known.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: 5/21/2018

By: [Signature]

Mallory EMBREE

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of San Diego) ss.

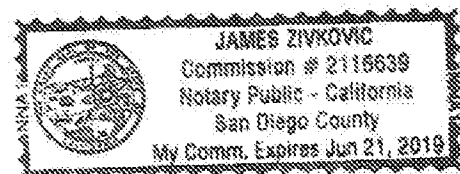
On 05/24/2018, before me, James Zivkovic, Notary Public, personally appeared Mallory Embree, who

proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

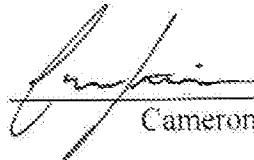
[Signature]
Signature of Notary Public



Place Notary Seal Above

My Commission Expires: 06/21/2019

Date: 05/23/18

By: 
Cameron MARTINO

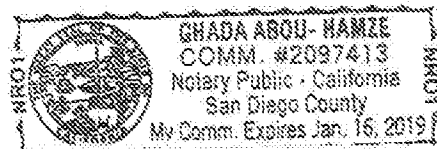
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State of California)
County of San Diego) ss.

On May 23, 2018, before me, Ghada Abou-Hamze, Notary Public, personally appeared Cameron Martino, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~~~they~~ executed the same in his/~~her~~~~their~~ authorized capacity(ies), and that by his/~~her~~~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

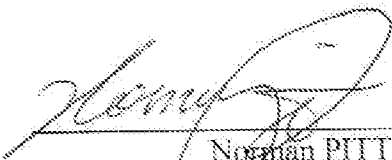
WITNESS my hand and official seal.


Signature of Notary Public



Place Notary Seal Above

My Commission Expires: Jan 16, 2019

Date: 5/23/18 By: 
Norman PITT

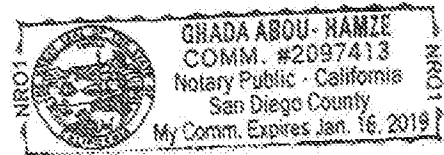
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of San Diego) ss.

On May 23, 2018, before me, Ghada Abou-Hamze, Notary Public, personally appeared Norman Pitt, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


Signature of Notary Public



Place Notary Seal Above

My Commission Expires: Jan 16, 2019

Date: 5/23/18

By: [Signature]

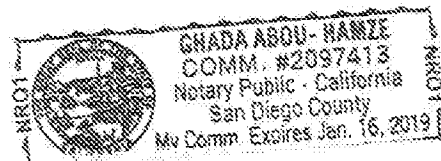
Jordan EMBREE

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State of California)
County of San Diego) ss.

On May 23, 2018, before me, Ghada Abou-Hamze, Notary Public, personally appeared Jordan Embree, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Ghada Abou-Hamze
Signature of Notary Public

Place Notary Seal Above

My Commission Expires: Jan 16, 2019

Date: 23 May 2018

By:

[Signature]
Corey DODGE

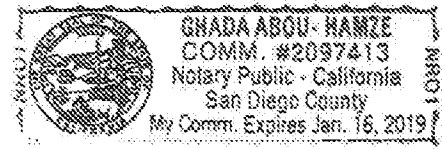
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State of California)
County of San Diego) ss.

On May 23, 2018, before me, Ghada Abou-Hamze, Notary Public, personally appeared Corey Dodge, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Ghada Abou-Hamze
Signature of Notary Public



Place Notary Seal Above

My Commission Expires: Jan 16, 2019

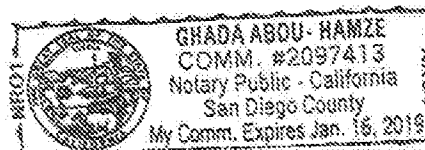
Date: 5/23/18By: WJL
Name: Michael Seely
Title: CEO
Company: Ascus Biosciences, Inc.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss.
County of San Diego)

On May 23, 2018, before me, Ghada Abou-Hamze, Notary Public, personally appeared Michael Wayne Seely Jr., who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. REQUIRED SENTENCE IF NOTARIZED IN CALIFORNIA: I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Ghada Abou-Hamze
Signature of Notary Public

Place Notary Seal Above

My Commission Expires: Jan 16, 2019