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03-13-2000

ASSIGNMENT



R SHEET Patents Only

101287678

To the Honorable Commissioner of Patents and Trademarks:
Please record the attached original documents or copy thereof.

Attorney Dkt. No.: 5718-43

1. Name of conveying party(ies):

- (1) Jon Duvick
Carl R. Simmons
- (2) Oswald R. Crasta
Otto Folkerts

2. Name and address of receiving party(ies):

- (1) Pioneer Hi-Bred International, Inc.
800 Capital Square
400 Locust Street
Des Moines, Iowa 50309
- (2) CuraGen Corporation
555 Long Wharf Drive, 13th Floor
New Haven, Connecticut 06511

RECEIVED
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CPR/FINANCE

Additional name(s) of conveying party(ies) attached? Yes ☐ No ☒

3. Nature of conveyance:

- ☒ Assignment
☐ Merger
☐ Security Agreement
☐ Change of Name
☐ Other

Execution Date: (1) January 5, 2000; January 4, 2000;

(2) January 14, 2000; January 14, 2000, respectively

Additional name(s) & address(es) attached? Yes ☐ No ☒

4. Application No. 09/431,470; filed November 1, 1999

Patent No. _____

If this document is being filed together with a new application, the execution date of the application is: _____

Additional numbers attached? Yes ☐ No ☒

5. Name and address of party to whom correspondence concerning document should be mailed:

W. Murray Spruill
ALSTON & BIRD LLP
P. O. Drawer 34009
Charlotte, NC 28234-4009

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41) \$40.00

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number: 16-0605

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40.00 DP

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9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

W. Murray Spruill, Reg. No. 32,943
Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: 7

RTA01/2073378v1

PATENT
REEL: 010594 FRAME: 0261

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

PIONEER HI-BRED INTERNATIONAL, INC.
 800 Capital Square
 400 Locust Street
 Des Moines, Iowa 50309

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in **"USE OF β -GLUCOSIDASE TO ENHANCE DISEASE RESISTANCE AND RESISTANCE TO INSECTS IN CROP PLANTS"**

as set forth in this United States Patent Application

- ☐ executed concurrently herewith
☐ executed on
☒ Application No. 09/431,470; filed November 1, 1999

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation, nonprovisionals, continuations-in-part, and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications, and/or Letters Patent.

The undersigned hereby grant an authorized representative of Assignee the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Date 1-5-00

Jon Duvick

State of Iowa

County of Polk

ss.

I certify that I know or have satisfactory evidence that **Jon Duvick** is the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 1-5-00

Signature of
Notary Public

Ginny Boesen

Printed Name

Ginny Boesen

My appointment expires



1/4/00
Date

Carl R. Simmons
Carl R. Simmons

State of Iowa

County of Polk

ss.

I certify that I know or have satisfactory evidence that **Carl R. Simmons** is the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 1-4-00

Signature of Notary Public Ginny Boesen

Printed Name Ginny Boesen

My appointment expires



Attorney Docket No. 5718-43

RTA01/2069720v1

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

CuraGen Corporation
555 Long Wharf Drive, 13th Floor
New Haven, Connecticut 06511

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in **"USE OF β -GLUCOSIDASE TO ENHANCE DISEASE RESISTANCE AND RESISTANCE TO INSECTS IN CROP PLANTS"**

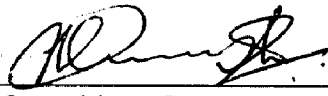
as set forth in this United States Patent Application

- ☐ executed concurrently herewith
☐ executed on
☒ Application No. 09/431,470; filed November 1, 1999

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation, nonprovisionals, continuations-in-part, and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications, and/or Letters Patent.

The undersigned hereby grant an authorized representative of Assignee the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Jan 14, 2000
Date


Oswald R. Crasta

State of Connecticut)
County of New Haven)

ss.

I certify that I know or have satisfactory evidence that Oswald R. Crasta is the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 1/14/00

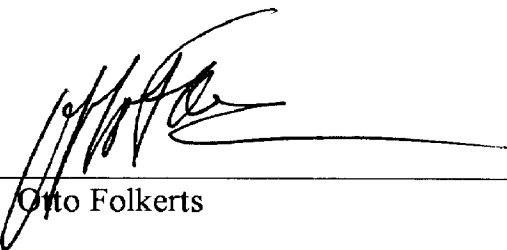
Signature of
Notary Public 

Printed Name JENELL MARIE LAWSON

My appointment expires JAN 28, 2004
JENELL MARIE LAWSON
NOTARY PUBLIC
MY COMMISSION EXPIRES FEB. 28, 2004

Jan 14, 2000

Date


Otto Folkerts

State of Connecticut

County of New Haven

ss.

I certify that I know or have satisfactory evidence that Otto Folkerts is the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 1/14/2000

Signature of
Notary Public 

Printed Name JENELL MARIE LAWSON,

My appointment expires _____

JENELL MARIE LAWSON
NOTARY PUBLIC
MY COMMISSION EXPIRES FEB. 28, 2005

RTA01/2071839v1