

HEET

U.S. DEPARTMENT OF COMMERCE

| 2 | 10090 | 5301 Patent and Trademark Office | | |
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| 2) | To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. | | | |
| 11-19 | Name of conveying party(ies): (1) Max F. Rothschild; (2) Amy L. Vincent | Name and address of receiving party(ies) Name: lowa State University Research Foundation, Inc. | | |
| 1) July | (3) Christopher K. Tuggle Additional name(s) of conveying party(ies) attached? Yes 图 No | Internal Address: | | |
| | 3. Nature of conveyance: 图 Assignment Merger Security Agreement Change of Name Other Execution Date: (1, 3) October 20, 1998; | Street Address: 310 Lab of Mechanics City: Ames State: lowa Zip: 50011 | | |
| | (2) November 2, 1998 | Additional name(s) & address(es) attached? Yes ☒ No | | |
| | 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the A. Patent Application No.(s) 08/812,208 | he execution date of the application is: B. Patent No.(s) | | |
| | Additional numbers attached? Yes 🗵 No | | | |
| | Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: | | |
| | Name: <u>Heidi S, Nebel</u> Internal Address: | 7. Total fee (37 CFR 3.41)\$ 40.00 ☑ Enclosed (If this amount is insufficient, please charge Deposit Account 26-0084) Authorized to be charged to deposit account | | |
| | Street Address: 801 Grand Avenue, Suite 3200 | 8. Deposit account number: | | |
| 11/ | City: <u>Des Moines</u> State: <u>Iowa</u> Zip: <u>50309-2721</u> 23/1998 DNGUYEN 00000048 08812208 | (Attach duplicate copy of this page if paying by deposit account) | | |
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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. | | | |
| | Wendy K. Hartung | | | |
| | Name of Person Signing Total number of pages including cover sheet, attachments, and document: Date | | | |
| 1 | | | | |

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

ASSIGNMENT

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:

Iowa State University Research Foundation, Inc 310 Lab of Mechanics Ames, Iowa 50011

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 entitled PROLACTIN RECEPTOR GENE AS A GENETIC MARKER FOR INCREASED LITTER SIZE IN PIGS as set forth in his United States Patent Application

| | executed concurrently herewith | | | |
|-----|--------------------------------|-------|---------------|--|
| | executed on | | | |
| _X_ | Serial No. <u>08/812,208</u> | filed | March 6, 1997 | |

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation 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 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

PATENT REEL: 9589 FRAME: 0848 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 invention, and to testify in any proceedings relating to said inventions, patent applications, 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.

| NAMES AND SIGNATURES OF INVENTORS | | | | | | |
|-----------------------------------|------------------------------|----------------|--|--|--|--|
| | | | | | | |
| Name: MAX F. ROTHSCHILD | Signature: Wax Fortal | Date: /0/2/93 | | | | |
| Name: AMY L. VINCENT | Signature: | Date: | | | | |
| Name: CHRISTOPHER K. TUGGLE | Signature Churchen K-Lug Von | Date: 10/20/98 | | | | |
| Name: | Signature: | Date: | | | | |
| | | | | | | |
| NAMES AND SIGNATURES OF WITNESSES | | | | | | |
| | | | | | | |
| Name: Patsy Duncan | Signature: Atypuncan | Date: 10/20/98 | | | | |
| Name: | Signature: | Date: | | | | |
| Name: Patsy Duncan | Signature: Pats Duncan | Date: 10/20/98 | | | | |
| Name: | Signature: | Date: | | | | |

Note: Prima facie evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

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| | | | | | | |
| Name: MAX F. ROTHSCHILD | Signature: Max Fortalist | Date: 10/20/93 | | | | |
| Name: AMY L. VINCENT | Signature: Wmy d. Vincent | Date: 1//2/90 | | | | |
| Name: CHRISTOPHER K. TUGGLE | Signature: Cantarin K-Lug K | Date: 10/20/98 | | | | |
| Name: | Signature: | Date: | | | | |
| | | | | | | |
| NAMES AND SIGNATURES OF WITNESSES | | | | | | |
| | | | | | | |
| Name: Patsy Duncan | Signature: Laty Duncan | Date: 10/20/98 | | | | |
| Name: Baban ? Cruichen | Signature: Barlan 3. Grichan | Date: //-2-98 | | | | |
| Name: Patsy Duncan | Signature: Ata Duncan | Date: 10/20/98 | | | | |
| Name: | Signature: | Date: | | | | |

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RECORDED: 11/17/1998