

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MMI Genomics, Inc.	10/27/2005
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MetaMorphix, Inc.
<b>Street Address:</b>	8510-A Corridor Road
<b>City:</b>	Savage
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20763
<b>Name:</b>	Cargill, Incorporated
<b>Street Address:</b>	15407 McGinty Road West
<b>Internal Address:</b>	MS/24
<b>City:</b>	Wayzata
<b>State/Country:</b>	MINNESOTA
<b>Postal Code:</b>	55391
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	10750622
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(858)677-1465
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	(858) 638-6756
<b>Email:</b>	aldon.griffis@dlapiper.com
<b>Correspondent Name:</b>	Lisa A. Haile, J.D., Ph.D.
<b>Address Line 1:</b>	4365 Executive Drive, Suite 1100
<b>Address Line 2:</b>	DLA Piper Rudnick Gray Cary US LLP
<b>Address Line 4:</b>	San Diego, CALIFORNIA 92121-2133

**CH \$40.00 10750622**

ATTORNEY DOCKET NUMBER:

MMI1150

NAME OF SUBMITTER:

Lisa A. Haile, J.D., Ph.D.

Total Attachments: 2

source=MMI1150 Assignment (MMI Genomics, Inc. to Cargill, Inc. & Metamorphix, Inc.)#page1.tif

source=MMI1150 Assignment (MMI Genomics, Inc. to Cargill, Inc. & Metamorphix, Inc.)#page2.tif

## WORLDWIDE PATENT ASSIGNMENT

**WHEREAS**, MMI GENOMICS, INC., a Delaware corporation and wholly-owned subsidiary of MetaMorphix, Inc., a Delaware corporation (hereinafter referred to as the "Assignor"), has an invention relating generally to genetic markers and more specifically to polymorphisms associated with bovine breed, which said Assignor has caused an application for United States Letters Patent to be prepared, said application having been filed in the United States Patent and Trademark Office on December 31, 2002 (PCT/US 2003/041761 and MMI Docket No. MMI 1150) and entitled "Compositions, Methods, and Systems for Inferring Bovine Breed" (hereinafter the "'041761 Application");

**WHEREAS**, CARGILL, INCORPORATED, a Delaware corporation (hereinafter referred to as a "Co-Assignee" or as "Cargill"), in accordance with and subject to a joint research agreement between the two Co-Assignees, has acquired a joint right, title, and interest in and to said applications, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefore, including any and all renewals, reissues, and prolongations thereof;

**WHEREAS**, METAMORPHIX, INC., a Delaware corporation ("MMI"), and Cargill incorporated, a Delaware corporation, as Co-Assignees hereunder, shall be co-owners of the Patent Application.

**NOW THIS WITNESSETH**, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration each paid by Cargill and MMI to Assignor and exchanged between them, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby assigns, sells, and transfers, and has assigned, sold, and transferred to Cargill and to MMI, as Co-Assignees, their respective successors and assigns, each a joint right, title, and interest for the United States in and to the invention, the '041761 Application, and any patents which may be granted therefor, including any and all divisions, continuations, in whole or in part, substitutions, renewals, reissues, reexaminations, extensions, any application to which the '041761 Application claims priority from, and all applications claiming priority therefrom; and Assignor authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as their interest is concerned, jointly to the Co-Assignees; to have, hold, exercise, and enjoy, with all the rights, powers, privileges, and advantages in anywise arising therefrom or appertaining thereto, for and during the term or terms of any and all such patents when granted, for the use and benefit of said Co-Assignees, and said Co-Assignees' respective successors and assigns, in as ample and beneficial a manner as Assignor might or could have held and enjoyed the same, if this assignment had not been made; however, subject to and governed by the terms of agreements between the Co-Assignees.

Assignor further hereby assigns, sells, and transfers, and has assigned, sold, and transferred to the Co-Assignees, their respective successors and assigns, the entire right, title, and interest in all countries of the world, in and to the invention and in and to the '041761 Application and all patents which may be granted therefor, and all national applications, regional applications, divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, including the right to file applications and obtain patents for the invention in its own name, in all countries and including all rights of priority in all countries under the terms of any applicable international convention, insofar as its interest is concerned; and the Assignor hereby authorizes and requests the applicable patent office in each country of the world to issue all patents for the

invention, or patents resulting therefrom, insofar as its interest is concerned, jointly to the Co-Assignees, to have and to hold for the sole and exclusive use and benefit of the Co-Assignees, their respective successors and assigns, to the full end of the term or terms for which any and all of such patents for the invention may issue, to the same extent as the Assignor would hold and enjoy if this Assignment had not been made; however, subject to and governed by the terms of agreements between the Co-Assignees.

The Assignor further covenants and agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agrees, at the reasonable request of either Co-Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Co-Assignees, their respective successors and assigns, to obtain, maintain and enforce proper patent protection for said invention.

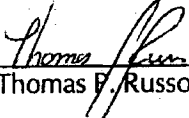
**IN WITNESS WHEREOF**, the Assignor and the Co-Assignees, by their respective duly authorized officers, have caused this Worldwide Patent Assignment to be executed.

Dated as of October 27, 2005.

**ASSIGNOR:**

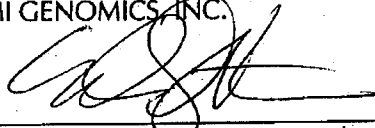
[SEAL]

ATTEST:

  
\_\_\_\_\_  
Thomas F. Russo, Secretary

MMI GENOMICS, INC.


By:

  
\_\_\_\_\_  
Edwin C. Quattlebaum, President

**CO-ASSIGNEES:**


[SEAL]

ATTEST:

  
\_\_\_\_\_  
William E. Carlson, Secretary


METAMORPHIX, INC.

By:

  
\_\_\_\_\_  
Edwin C. Quattlebaum, President

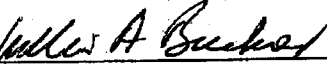
[SEAL]

ATTEST:

  
\_\_\_\_\_  
Name: Aileen Anderson

CARGILL, INCORPORATED

By:

  
\_\_\_\_\_  
Name: William A. Buckner  
Title: Corp. V.P.