



**For Immediate Release**

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**MetaMorphix and Cargill Announce Completion of  
the First Whole Genome Association Study in Beef Cattle**

*Exclusive Agreement with Cargill's Caprock Cattle Feeders and Excel Corporation  
Expected to Result in Superior Beef for Consumers*

Savage, MD and Minneapolis, MN – June 7, 2004 –MetaMorphix, Inc. (MMI) and Cargill, Incorporated announced today that they have completed the first whole cattle genome association study and developed tools that could identify cattle that meet consumer demands for quality meat products.

In June 2002, MetaMorphix, Inc. and Caprock Cattle Feeders and Excel Corporation, both part of Cargill, signed an exclusive research and development agreement to develop and commercialize tools to identify cattle bearing traits that satisfy consumer demands for consistency and quality in beef.

Using its GENIUS-Whole Genome System™, MMI identified and characterized a dense map of novel genetic markers based on single nucleotide polymorphisms (SNPs) in beef cattle. The company then conducted a whole genome association study in a population of commercial beef cattle at a Caprock feedlot and discovered specific regions in the cattle genome that associate with desirable beef traits. Over fourteen million genotyping assays were generated during the extensive research program.

“Accomplishing these milestones is important for two reasons,” said Edwin C. Quattlebaum, Ph.D., chairman and chief executive officer of MetaMorphix, Inc. “First, it establishes that a whole genome association study is a valid approach for identifying a set of SNP-based markers that can be used to select animals that express desirable traits. It also suggests that our GENIUS-Whole Genome System™ will be a valuable tool for gene discovery activities that identify novel development leads for both the animal health and human therapeutic sectors.”

“This is the first whole genome association study completed in livestock,” said Stephen Bates, vice president and general manager of MetaMorphix’s wholly owned subsidiary MMI Genomics, Inc.

Albert Paszek, Ph.D., director Animal Productivity and Genomics at Cargill, said: “We are pleased with the project progress. The creation of this unique set of

markers in the bovine genome will permit the development of a product that we expect will aid the cattle feedlot technology aimed at production of superior cattle and beef. We look forward to working with MetaMorphix to bring this innovation to the cattle industry.”

Over the next year, the tools will be validated in Caprock feedlots to examine their use in commercial cattle production. In these trials, MMI Genomics will also be evaluating its cattle identification tag. In the feedlot, cattle will be tagged utilizing a device that simultaneously collects a blood sample. Both the tag and the blood sample card have identical and animal-unique bar codes. The card containing the blood sample will be sent to the lab for DNA analysis to assess the animal's potential for desirable traits.

**About MetaMorphix, Inc.**

Founded in 1994 and based in Savage, Maryland, MetaMorphix, Inc. is a privately held life sciences company that uses the code of life DNA to improve the global food supply and human health. In livestock, we help our customers produce higher quality, nutritious meat more efficiently; and in healthcare, we discover and license targets to pharmaceutical companies that develop therapies for better management of metabolic and muscular degenerative diseases. For more information on MetaMorphix, see: [www.metamorphixinc.com](http://www.metamorphixinc.com).

**About Cargill, Caprock and Excel**

Based in Minneapolis, Cargill, Incorporated is an international provider of food, agricultural and risk management products and services. With 101,000 employees in 60 countries, Cargill is committed to using its knowledge and experience to collaborate with customers to help them succeed. For more information, visit [www.cargill.com](http://www.cargill.com).

A wholly owned subsidiary of Cargill, Excel Corporation is a leader in providing premium quality beef and pork products and programs to retail and commercial food service markets around the world. Based in Wichita, Kan., Excel and affiliated meat companies employ approximately 20,000 people worldwide and have 21 production facilities in the United States, Canada and Australia. For more information, visit [www.excelmeats.com](http://www.excelmeats.com).

A division of Cargill, Caprock Cattle Feeders is one of the leading cattle feeding companies in the United States. Based in Amarillo, Texas, the 27-year-old business employs some 220 employees who feed in excess of 600,000 head of cattle per year in its four feedlots located in Texas and Kansas.

*Certain statements in this press release are forward-looking. These may be identified by the use of forward-looking words or phrases such as “believe,” “expect,” “intend,” “anticipate,” “should,” “planned,” “estimated,” and “potential,” among others. These forward-looking statements are based on MetaMorphix Inc.’s current expectations. The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for such forward-looking statements. In order to comply with the terms of the safe harbor, MetaMorphix Inc. notes that a variety of factors could cause actual results and experience to differ materially from the anticipated results or other expectations expressed in such forward-looking statements. The risks and uncertainties that may affect the operations, performance, development, and results of MetaMorphix Inc.’s businesses include but are not limited to; (1) unproven use of genomics information to develop or commercialize products; and (2) other factors that might be described from time to time in MetaMorphix Inc.’s business plan and regulatory filings.*