



For Immediate Release  
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### **Moving Michigan to an Agricultural-Based Economy**

LANSING, MICH. – As farmers in Michigan continue to have increased corn yields and as the crop size continues to grow, the Corn Marketing Program of Michigan (CMPM) is working to find and develop new products and markets for those increasing number of bushels. As part of its mission, the CMPM utilizes the penny per bushel contribution from the state’s corn farmers to fund research looking at ways to not only enhance traditional markets like livestock and exports, but also to cultivate new market opportunities such as corn-based plastics, fibers and pharmaceuticals and fuels.

“The CMPM has been working with AFID Therapeutics, Inc. to develop exciting new opportunities for Michigan’s corn crop,” said Pat Feldpausch, CMPM president and a corn farmer from Fowler. “AFID Therapeutics has developed a large repertoire of carbohydrate-based chemistries, primarily from corn, dried distillers grains (DDGs), and even sugar beets.”

#### **Aerospace Applications**

AFID Therapeutics, Inc. has created a high-purity reactant from corn and its co-products. The corn is put through a chemical transformation, creating an advanced glycol-based reactant. AFID Therapeutics, Inc. has already received three orders from leading aerospace companies for their high-tech product.

“It is especially gratifying to see success in using chemical technology to bridge the aerospace and agricultural industries,” said Rawle Hollingsworth, president and founder of AFID Therapeutics, Inc. “Michigan is the perfect place for this kind of development in which agriculture is placed at the center of a budding scientific, technical and economic revolution. In many respects, this is the future chemical industry for Michigan and its corn farmers.”

#### **Pharmaceutical Applications from Corn**

In addition to its high-purity reactant, AFID Therapeutics, Inc. has also developed a platform of carbohydrate-based chemical compounds, primarily used as the building blocks for drug substances. Since 2005, AFID Therapeutics, Inc. has introduced more than 300 new chemical entities into practice for internal use and use by pharmaceutical companies around the world, including Merck, Pfizer, Novartis and Johnson & Johnson.

The pharmaceutical chemistry developed by AFID Therapeutics, Inc. is being used by over 100 pharmaceutical research and development companies around the world, in countries such as China, Japan, India, Germany, France, Switzerland and the UK.

### **Chemical Intermediaries from Dried Distillers Grains**

As Dr. Hollingsworth was creating his chemical platform for pharmaceutical applications, the Michigan ethanol industry expanded from one plant to five, producing 250 million gallons of ethanol and 671,000 metric tons (1,503,040,000 pounds) of dried distiller's grains (DDGs). With this influx of DDGs on the market, Dr. Hollingsworth began developing a chemical intermediate platform from DDGs. These chemical intermediates can be used in areas ranging from pharmaceuticals to paints, polymers, coatings and other industrial materials.

Dr. Hollingsworth has created two commercialization streams from DDGs, leading to either fine chemicals, pharmaceuticals, and polymers or leading to paper, new hybrid materials and other cellulosic composite materials.

“The research being conducted by Dr. Hollingsworth focuses on enhancing the uses of corn and DDGs by moving them into markets that are usually very energy intensive, are non-renewable, and have a very large negative environmental impact,” added Jody Pollok-Newsom, Executive Director of the Corn Marketing Program of Michigan. “This research moves us one step closer to realizing our long-term vision of having an agricultural-based carbon economy.”

Headquartered in Lansing, the CMPM is a legislatively-established statewide program that utilizes one-cent per bushel of Michigan corn sold. Investments are made in the areas of research, education, market development, and new uses in an effort to enhance the economic position of Michigan corn farmers. The CMPM works cooperatively with the Michigan Corn Growers Association (MCGA), a grassroots-membership association representing the state's corn grower's political interests since the 1970's. Michigan's corn industry adds more than one billion dollars to the state's economy annually and in 2010, Michigan's corn farmers harvested a record setting crop of more than 315 million bushels. For more information, visit the website of the MCGA and the CMPM at [www.micorn.org](http://www.micorn.org).

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