SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): August 2, 2005

ISIS PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

000-19125 (Commission File No.)

33-0336973 (IRS Employer Identification No.)

1896 Rutherford Road Carlsbad, CA 92008

(Address of Principal Executive Offices and Zip Code)

Registrant's telephone number, including area code: (760) 931-9200

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Entry into a Material Agreement.

On August 2, 2005, Isis Pharmaceuticals, Inc. issued a press release announcing that its Ibis division has been awarded a government grant for up to \$4.9 million for its TIGER biosensor system for the continued development of applications to diagnose infectious disease and to identify and control hospital-associated infections. The grant was received from the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH). A copy of this release is furnished with this report as an exhibit.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits.

99.1 Press Release dated August 2, 2005.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ISIS PHARMACEUTICALS, INC.

Dated: August 2, 2005 By: /s/ B. Lynne Parshall

B. LYNNE PARSHALL Executive Vice President,

Chief Financial Officer and Director

INDEX TO EXHIBITS

99.1 Press Release dated August 2, 2005.

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Contact: Navjot Rai

Investor Relations & Corporate Communications

760-603-2331

ISIS PHARMACEUTICALS AWARDED GRANT FOR UP TO \$4.9 MILLION FROM THE NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES TO DEVELOP HEALTHCARE APPLICATIONS FOR TIGER BIOSENSOR SYSTEM

Collaboration with Leading Medical Centers Furthers Development of TIGER Biosensor System for Clinical Diagnostics

CARLSBAD, Calif., August 2, 2005 - Isis Pharmaceuticals, Inc. (Nasdaq: ISIS) announced today that its Ibis division has been awarded a government grant for up to \$4.9 million for its TIGER biosensor system for the continued development of applications to diagnose infectious diseases and to identify and control hospital-associated infections. The grant was received from the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH). The TIGER (Triangulation Identification for Genetic Evaluation of Risks) biosensor system is a revolutionary system for the identification of infectious organisms as it can simultaneously identify thousands of infectious organisms without needing to know what might be present in a sample.

As part of this three-year, milestone-driven grant, Ibis will work closely with several of its long-term clinical collaborators including the Johns Hopkins University Medical Center, ARUP Laboratories, and Lovelace Respiratory Research Institute to test and validate the TIGER biosensor system for clinical laboratory use. Ibis will also develop infectious organism identification (ID) test kits to identify a broad range of respiratory and blood-borne infectious agents. In addition, Ibis will deliver a TIGER biosensor system to one of the medical collaborators for clinical diagnostics validation.

"This grant reflects the very high level of excitement in the government about the potential of the TIGER biosensor system to revolutionize the identification of infectious diseases in a clinical setting, and represents a significant step forward in commercializing its diagnostic and hospital-associated infection control applications," said Michael Treble, President of Ibis and Vice President of Isis. "The collaborative work that we conduct with leading medical institutions will provide data, documentation and experience to support the regulatory and manufacturing approvals required to access the clinical diagnostics markets."

Ibis plans to deliver a TIGER biosensor system this year to the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), for use in biological warfare defense; to the Naval Health Research Center and to the Centers for Disease Control and Prevention (CDC), each for use in epidemiological surveillance, and to the Department of Homeland Security, for use in microbial forensics.

From inception through March 31, 2005, Ibis has earned \$38.5 million in revenue from government partners. An additional \$15.2 million is committed under existing contracts and grants, with the potential for added funding.

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ABOUT TIGER AND THE IBIS DIVISION

The Ibis division has developed the TIGER (Triangulation Identification for Genetic Evaluation of Risks) biosensor system, a revolutionary system to identify infectious organisms. Ibis plans to commercialize the TIGER biosensor system to government customers for use in biowarfare defense, epidemiological surveillance and forensics; and to non-government customers for use in pharmaceutical process control, hospital-associated infection control and infectious disease diagnostics. Additional information about Isis' Ibis division can be found at www.ibistiger.com or accessed from Isis' homepage at www.isispharm.com.

The Ibis division has been funded by U.S. government agencies including the Defense Advanced Research Projects Agency (DARPA), the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), the Federal Bureau of Investigation (FBI), the Department of Homeland Security (DHS) and others.

ABOUT ISIS PHARMACEUTICALS, INC.

Isis Pharmaceuticals, Inc. is exploiting its expertise in RNA to discover and develop novel drugs for its product pipeline and for its partners. The Company has successfully commercialized the world's first antisense drug and has 11 antisense drugs in development to treat metabolic, cardiovascular and inflammatory diseases, and cancer. In its Ibis division, Isis is developing and commercializing the TIGER biosensor system, a revolutionary system to identify infectious organisms. As an innovator in RNA-based drug discovery and development, Isis is the owner or exclusive licensee of more than 1,500 issued patents worldwide. Additional information about Isis is available at www.isispharm.com.

This press release includes forward-looking statements regarding the development and commercialization of Isis Pharmaceuticals' TIGER biosensor system, as well as the Company's plans and goals for Ibis. Any statement describing Isis' goals, expectations, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement, including those statements that are described as Isis' goals. Such statements are subject to certain risks and uncertainties, particularly those inherent in developing and commercializing systems to identify infectious organisms that are effective and commercially attractive, and in the endeavor of building a business around such products. Isis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Isis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Isis. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Isis' programs are described in additional detail in Isis' annual report on Form 10-K for the year ended December 31, 2004, and its quarterly report on Form 10-Q for the quarter ended March 31, 2005, which are on file with the SEC. Copies of these and other documents are available from the Company.