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**Research Using Thermo Fisher Scientific RNA-Interference Technology
Unveils Potential New Targets for HIV Drugs**

*Harvard Medical School Researchers Used Thermo Scientific Dharmacon siRNA to Identify
273 Human Proteins Needed for Reproduction of the Virus that Causes AIDS*

WALTHAM, Mass., (Jan. 31, 2008) – Thermo Fisher Scientific Inc., the world leader in serving science, announced today that its RNA-interference (RNAi) technology has enabled a groundbreaking study at Harvard Medical School in Boston, which identified human proteins required for growth of the human immunodeficiency virus (HIV). This research points to potential new targets for treating HIV infection, which causes acquired immune deficiency syndrome (AIDS).

In the study, Harvard Medical School researchers used the Thermo Scientific Dharmacon® siGENOME® siRNA Library to “silence” more than 21,000 human genes, blocking the proteins they produce. With the help of the Harvard’s ICCB-Longwood High Throughput Screening Facility, the researchers identified 273 proteins required for HIV reproduction. Only 36 were previously known to be important to HIV.

“This study clearly demonstrates the power of genome-wide RNAi screening in identifying novel drug targets,” said Ian Jardine, vice president of global research and development for Thermo Fisher Scientific. “The Harvard Medical School findings dramatically expand the number of potential targets for fighting HIV. It is an exciting discovery that holds promise for new treatments, and we are thrilled that our genome-wide siRNA library enabled this work.”

Current HIV therapies target the virus itself, but HIV often mutates to build resistance against those drugs. Drugs targeting host proteins may be significantly less vulnerable to resistance caused by the virus’ ability to mutate.

The research team was led by Harvard Medical School (HMS) professor Dr. Stephen J. Elledge and Dr. Judy Lieberman, HMS professor of pediatrics as well as an investigator at the Immune Disease Institute and director of the HMS Division of AIDS. The team also included Dr. Abraham L. Brass, postdoctoral researcher, working with Derek Dykxhoorn and Nan Yan, molecular virologists in Dr. Lieberman’s group. Brass used the Dharmacon siGENOME siRNA Library for discovering weaknesses in pathogens such as HIV.

“HIV only expresses a few proteins, so it depends greatly on our cellular machinery during its lifecycle,” said Brass. “Every time the virus relies on one of our proteins, it gives us the potential to disrupt that interaction and hurt HIV, which is very exciting. We also now have the ability to

combine technology like siRNA screening with advanced robotics, giving us an incredibly powerful tool to go after devastating diseases such as HIV and cancer."

Dr. Caroline Shamu, director of the ICCB-Longwood Screening Facility, added, "Whole-genome siRNA (short-interfering RNA) screening is playing an increasingly important role in advancing genomic and proteomic research. Because it allows us to investigate the entire human genome, screening thousands of samples simultaneously, it dramatically accelerates the pace of biomedical discovery." Shamu's facility hosts the Dharmacon siGENOME siRNA Library and oversees screening conducted by researchers from Harvard Medical School and its affiliates.

The siGENOME siRNA Library is a collection of more than 21,000 siRNAs targeting every gene in the human genome. Each siRNA silences or disrupts the gene's ability to produce a specific protein. The siGENOME siRNA Library is currently used by many of the world's leading research institutions to accelerate the identification of genes important to human health.

Harvard Medical School is a member of the RNAi Global Initiative, founded by the Dharmacon products team and several leading research institutions around the world. In addition to Thermo Fisher Scientific, there are now 26 member institutions, all using the siGENOME siRNA Library and collaborating on research into cancer, diabetes, infectious diseases and other human health problems.

A paper written by the researchers details their findings and has been published online by *Science* magazine. It will appear in the magazine's print publication on Feb. 8. Other members of the HMS team who contributed to the paper include Alan Engelman, Yair Benita and Ramnik J. Xavier.

About Thermo Fisher Scientific

Thermo Fisher Scientific Inc. (NYSE: TMO) is the world leader in serving science, enabling our customers to make the world healthier, cleaner and safer. With an annual revenue rate of more than \$9 billion, we employ 30,000 people and serve over 350,000 customers within pharmaceutical and biotech companies, hospitals and clinical diagnostic labs, universities, research institutions and government agencies, as well as environmental and industrial process control settings. Serving customers through two premier brands, Thermo Scientific and Fisher Scientific, we help solve analytical challenges from routine testing to complex research and discovery. Thermo Scientific offers customers a complete range of high-end analytical instruments as well as laboratory equipment, software, services, consumables and reagents to enable integrated laboratory workflow solutions. Fisher Scientific provides a complete portfolio of laboratory equipment, chemicals, supplies and services used in healthcare, scientific research, safety and education. Together, we offer the most convenient purchasing options to customers and continuously advance our technologies to accelerate the pace of scientific discovery, enhance value for customers and fuel growth for shareholders and employees alike. Visit www.thermofisher.com.

About the Genome-wide RNAi Global Initiative

The Genome-Wide RNAi Global Initiative is an alliance of leading international biomedical researchers, established to increase and accelerate the utility of human genome-wide siRNA libraries. The RNAi Global Initiative provides a forum for member institutions to share research protocols, establish experimental standards and develop mechanisms for exchanging and comparing screening data. Membership is open to not-for-profit biomedical research institutions

across North America, Europe and Asia. The RNAi Global Initiative is being coordinated under the auspices of the RNA Technologies product team within Thermo Fisher Scientific. Its members include the Campbell Family Institute for Breast Cancer Research at Princess Margaret Hospital and Samuel Lunenfeld Research Institute at Mount Sinai Hospital, both with The University of Toronto; Cancer Research UK (CRUK) at the London Research Institute and the Institute of Cancer Research (ICR); The German Cancer Research Center (DKFZ); Eppley Cancer Center at the University of Nebraska Medical Center; Netherlands Cancer Institute (NKI); The Division of Pathway Medicine at the University of Edinburgh Medical School; the University of Texas Southwestern Medical Center; Yale University; the University of Texas M. D. Anderson Cancer Center; the Cambridge Institute for Medical Research and MRC Cancer Cell Unit; Fox Chase Cancer Center; Harvard Medical School; Stanford University School of Medicine; British Columbia Cancer Research Centre; Trinity College, Dublin; the Vrije University Medical Center; Weizmann Institute of Science; University of Dundee School of Medicine; the Institute Pasteur Korea; and the Institute of Molecular and Cell Biology, a member of A*Star Biomedical Sciences Institutes in Singapore; The Institute of Molecular Biology and Tumor Research - Philipps-University Marburg; University of Chicago; The Salk Institute for Biological Studies; The United States Air Force; University of Manchester; The Center for Genomic Regulation (CRG).