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Affymetrix and Genisphere Launch Best-in-Class Solution for microRNA Expression Research

**Benefits include fastest labeling assay on the market and
industry-leading array content covering 71 organisms**

SANTA CLARA, Calif., March 16, 2009 – Affymetrix, Inc. (Nasdaq: AFFX) and Genisphere Inc. today announced the launch of a new, best-in-class solution for microRNA (miRNA) research studies. Encompassing assay, array, and software, the solution offers comprehensive miRNA coverage for 71 organisms on a single array. Covered species include human, mouse, rat, canine, and monkey—all of which are critical models for pharmaceutical and academic scientists working in oncology, stem cell research, toxicology, neuroscience, infectious disease, and many other areas.

miRNAs are emerging as a major component in the regulation of gene expression. Their main function is to down-regulate expression by binding to and modulating the translation of specific mRNAs. With the Affymetrix[®] miRNA solution, researchers can compare expression profiles across tissues and cell samples to gain insight into the role that miRNAs play in various biological processes, such as development, differentiation, viral infection, apoptosis, and oncogenesis.

The GeneChip[®] miRNA Array is synthesized using a patented, high-quality photolithography process to deliver optimal performance and includes

controls to ensure clear experimental outcomes. With the free miRNA QC tool software from Affymetrix, users can normalize data and perform quality control procedures for all miRNA experiments.

The FlashTag™ Biotin RNA Labeling Kit, created by Genisphere, is the first commercial assay of its kind to eliminate the need for sample purification and also provide Enzyme-Linked OligoSorbant Assay (ELOSA)-based quality control to monitor labeling efficiency. It is also the fastest assay on the market, enabling researchers to complete labeling in less than one hour. Requiring as little as 100 ng of total RNA, this highly sensitive assay can discriminate a one-nucleotide difference among miRNAs. The entire solution—array, assay, and software—is compatible with current GeneChip® Systems from Affymetrix.

“This streamlined RNA sample-to-analysis approach reduces the time and effort required from the researcher and their staff, thereby allowing more focus on the creative aspects of their research,” said Dr. Robert Getts, director of R&D at Genisphere. “Early adopters have observed the simplicity, speed, and ease of use of the FlashTag Biotin RNA Labeling Kit and are pleased with the data quality and reproducibility when used with the GeneChip miRNA Array.”

Increasingly, miRNA studies are facilitating the discovery of new exploratory biomarkers and disease-associated signatures. By using gene analysis tools from Affymetrix, researchers can integrate data generated from gene expression and genotyping studies with their miRNA data. This “integrated genomics” approach to biomarker discovery is extremely powerful and is already helping researchers gain critical new insights into the molecular mechanisms that underlie disease and drug response.

“The total US miRNA market is in the early stages of adoption and is expected to grow at a compound annual growth rate of 25 percent from 2008 to 2015,”¹ said Kevin King, president and CEO of Affymetrix. “This miRNA solution is another example of how Affymetrix continues to advance its leadership position and innovation in the expression market.”

For more information about the new miRNA Solution, please visit:
http://www.affymetrix.com/products_services/arrays/specific/mi_rna.affx

To order the GeneChip® miRNA Array, please call 888-DNA-CHIP (888-362-2447) or email sales@affymetrix.com.

To order FlashTag Biotin RNA Labeling Kits from Genisphere, call 877-888-3362, email info@genisphere.com, or visit www.genisphere.com.

¹ Frost & Sullivan. U.S. Micron Markets. N4DF-ff (2008).

About Affymetrix

Affymetrix GeneChip[®] microarray technology is the industry-standard tool for analyzing complex genetic information. After inventing microarray technology in the late 1980s, Affymetrix scientists have been dedicated to developing innovative products that provide researchers with a more complete view of the genome. These products continue to accelerate genetic research and enable scientists to develop diagnostics and tailor treatments for individual patients by identifying and measuring the genetic information associated with complex diseases.

Today, Affymetrix technology is used by the world's top pharmaceutical, diagnostic and biotechnology companies, as well as leading academic, government and not-for-profit research institutes. More than 1,800 systems have been shipped around the world and more than 16,000 peer-reviewed papers have been published using the technology.

Affymetrix is headquartered in Santa Clara, Calif., and has manufacturing facilities in Sacramento, Calif., Cleveland, Ohio, and Singapore. The company has about 1,100 employees worldwide and maintains sales and distribution operations across Europe and Asia. For more information about Affymetrix, please visit the company's website at www.affymetrix.com.

About Genisphere

Genisphere Inc. (Hatfield, PA) is a manufacturer of kits and reagents used for the ultra-sensitive detection of nucleic acids and proteins. Genisphere's signal amplification product line is based on its proprietary 3DNA[®] Dendrimers, highly branched DNA molecules capable of delivering up to hundreds of labels per analyte. 3DNA[®] Dendrimers can be generated in a variety of sizes, deliver a variety of different labels, and target a wide range of biomolecules, making the 3DNA Dendrimers extremely versatile and enabling them to be used in a wide variety of applications. 3DNA Dendrimers have been adapted for use in DNA and protein microarrays, ELISAs, bead-based assays, flow cytometry, in situ detection of nucleic acids and proteins, and many other applications. Genisphere has also expanded their product line to include proprietary whole transcriptome amplification, through their SenseAmp[™] and RampUP[™] product lines.

Genisphere distributes products worldwide through direct sales and distributorships. Genisphere employees strive to deliver innovative research tools to the research, clinical and diagnostic communities. For more information, visit www.genisphere.com

Forward-looking Statements

All statements in this press release that are not historical are "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act as amended, including statements regarding Affymetrix' "expectations," "beliefs," "hopes," "intentions," "strategies" or the like. Such statements are subject to risks and uncertainties that could cause actual results to differ materially for Affymetrix from those projected, including, but

not limited to: risks and uncertainties relating to commercial success of the agreement with Genisphere discussed in this press release; risks of the company's ability to achieve and sustain higher levels of revenue, higher gross margins and reduced operating expenses; uncertainties related to technological approaches, manufacturing and product development; personnel retention; uncertainties related to cost and pricing of Affymetrix products; dependence on collaborative partners; uncertainties related to sole-source suppliers; risks associated with past and future acquisitions; uncertainties relating to FDA and other regulatory approvals; competition; risks relating to intellectual property of others and the uncertainties of patent protection and litigation. These and other risk factors are discussed in Affymetrix' Form 10-K for the year ended December 31, 2008, and other SEC reports, including its Quarterly Reports on Form 10-Q for subsequent quarterly periods. Affymetrix expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Affymetrix' expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based.

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