

Press Release

LC Sciences Keeps Pace with Sanger miRBase microRNA Sequence Updates.

Houston, TX – May 9, 2006 – LC Sciences announced today that the probe content of its line of standard and custom microRNA microarrays used in their comprehensive expression profiling service would keep pace with the latest version (Release 8.1) of the Sanger miRBase sequence database and that microarrays containing the new sequences are already available. The Sanger Institute released their latest version of their miRBase sequence database for known microRNAs on Friday May 5, 2006. (<http://microrna.sanger.ac.uk/sequences/>) This is the fifth update since the beginning of last year and updates occur whenever a significant number of experimentally verified sequences are added to the database. This update is significant because of the large number of sequences added; the total number has increased from 3518 to 3963, which include 130 new Human sequences, 70 new Mouse sequences, and 3 entirely new species: *Xenopus tropicalis* (177), *Bos taurus* (33), Rhesus lymphocryptovirus (16).

The latest Sanger miRBase update was made primarily to include the findings in a paper recently published in PNAS¹. This paper referenced the μ ParaFlo™ microRNA microchip, which is the brand name of LC Sciences' microarray service products (<http://www.lcsciences.com/mirna.html>).

LC Sciences was the first company to offer a comprehensive, high-throughput service for genome-wide microRNA expression profiling and detection. The LC Sciences service is different from other services now available in that a microfluidics on-chip synthesis platform, termed μ ParaFlo™ developed by Atactic Technologies, is used for manufacture of the microarrays *versus* a traditional spotted array based on pre-synthesized oligonucleotides. In addition to providing much more uniform and reproducible features than a spotted array, on-chip synthesis permits the total customization of content on each individual microarray. Completely customizable content means LC Sciences can produce made-to-order microarrays and deliver the most up-to-date research tools to their customers.

Since this latest Sanger miRBase release has added so much content, all spotted Human or Mouse miRNA microarrays produced to date (Release 8.0 and earlier) won't provide researchers with a complete picture of the microRNA expression in their samples. Whereas LC Sciences can offer customers microarrays with the new release 8.1 probe content today, it may take quite some time before others (utilizing spotted arrays) can update their probe content.

About LC Sciences - LC Sciences is a genomics and proteomics product company offering innovative and quality products and services. Our array service products are based on Atactic Technologies' μ Paraflo™ platform technologies that encompass advanced digital chemical synthesis, pico-liter scale biochemical assays, and microfluidic reaction devices containing high density individual 3D chambers. This technology enables us to provide unique and customizable arrays of oligonucleotides, peptides, and their analog molecules. Our line of microarray products includes microRNA profiling arrays, custom oligonucleotide (aptamer) arrays, and peptide arrays (epitope arrays, protein kinase substrate peptide arrays, and phosphopeptide arrays). We provide powerful microarray products designed for nucleic acid and protein-profiling, biomarker-identification, ligand binding and drug screening, and development of diagnostic and detection devices.

More information about LC Sciences is available at <http://www.lcsciences.com>.

1. Cummins, J.M., He, Y., Leary, R.J., Pagliarini, R., Diaz, L.A., Jr., Sjoblom, T., Barad, O., Bentwich, Z., Szafranska, A.E., Labourier, E. et al. (2006) [The colorectal microRNAome](#). Proc. Natl. Acad. Sci. USA, 103, 3687-3692.