

MicroRNA Biomarkers Provide Reliable Diagnosis from Blood Samples

Data published in *BMC Cancer* and *PLoS ONE* show that febit's tailored biochips enable the identification of miRNA biomarker signatures for diagnosing lung cancer and multiple sclerosis from blood samples

LEXINGTON, Mass. and HEIDELBERG, Germany, Oct. 13, 2009 – Data published in *BMC Cancer* and *PLoS ONE* show that microRNA (miRNA) biomarkers provide reliable and highly differentiated diagnosis from blood samples for lung cancer and multiple sclerosis. The invasive and often painful procedure of collecting patient tissue samples may become obsolete in the coming years.

A research group led by Prof. Eckart Meese at the University of Saarland (Germany) investigated the performance of an innovative miRNA analysis method developed by febit biomed gmbh in patients with non-small cell lung cancer (NSCLC) and in patients suffering from multiple sclerosis.

Using febit's Geniom RT Analyzer, biomarker sets of 24 (lung cancer) and 28 (multiple sclerosis) miRNAs have been identified. They provide accurate discrimination of patients with NSCLC or multiple sclerosis from healthy individuals with 95 percent accuracy.

"We can rapidly incorporate any desired miRNA by using febit's highly flexible biochip technology," said Prof. Meese. "The automated microarray analysis ensures high sample throughput in short periods of time. We can use small amounts of easily accessible biological specimens such as blood. This allows us to conduct large-scale, comprehensive studies."

Peer Staehler, febit's CSO, said: "MiRNA biomarkers have a broad diagnostic potential. Since miRNA patterns are influenced by disease progression or the response to a treatment, this type of biomarker analysis provides additional information on the course, prognosis and appropriate therapy that the treatment can be tailored to each patient."

Using febit's technology, scientists also perform successful and efficient SNP (single nucleotide polymorphism) screening in large-scale studies, searching for certain point mutations in thousands of patient samples per sequencing run instead of sequencing one sample at a time.

About febit

febit develops, produces and markets flexible automated solutions for enabling biochip applications in Life Sciences. febit's product portfolio includes various instruments, optimized assays and genomic services, complemented by bioinformatics software and consulting.

PRESS RELEASE

For its main applications – HybSelect, febit’s innovative DNA capture method for Next-Generation-Sequencing and transcriptome profiling, especially miRNA Biomarkers – the highly advanced microfluidics of the patented Geniom Biochip offers the highest degree of automation, flexibility and efficiency available.

For more information, please visit www.febit.com.