

FOR IMMEDIATE RELEASE:

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AUTOMATED DNA METHYLATION SEQUENCE ANALYSIS for EPIGENETIC STUDIES
NOW AVAILABLE IN MUTATION SURVEYOR SOFTWARE

State College, PA, March 1, 2006, SoftGenetics, LLC announced that following a collaboration with leading researchers at Case Western Reserve University it has released an updated version of its acclaimed Mutation Surveyor software with a new function for automated analysis of Methylation Sequence traces. The new Methylation Detection function of Mutation Surveyor is the first software to automate the analysis of DNA sequence traces containing chemical modifications of DNA that can be inherited without changing the DNA sequence.

The analysis of DNA Methylation is a rapidly growing area of interest in Epigenetics, the study of heritable changes in gene function that occur without a change in the sequence of the nuclear DNA, in humans, animals and plants. Bisulfite treatment of single-stranded DNA converts cytosine to uracil; while methylated cytosine is not converted. Nucleotide sequencing of treated DNA will show unmethylated cytosines as thymines; 5-methylcytosines will be read as cytosines. Sequencing electropherograms from bisulfite-treated DNA, when compared to a reference sequence, that show Cs of CpGs as TpGs can be interpreted as these Cs of these CpGs are not methylated. If this comparison shows CpGs as unchanged, the C of these CpGs can be interpreted as being methylated.

Mutation Surveyor is a powerful software using a unique physical trace comparison technology to detect nucleotide changes between two sequence traces. Mutation Surveyor has a new function to simplify the analysis of DNA methylation using bisulfite conversion of cytosine to uracil followed by nucleotide sequencing.

With the new Methylation Sequence Data Analysis the GenBank sequence of the DNA fragment of interest is used as a "ruler" to report nucleotide changes, including methylations and mutations. The methylation function of Mutation Surveyor utilizes the GenBank sequence text or derivatives of the sequence text and converts it into a synthetic reference sequence. This synthetic reference sequence is then physically compared to the sample sequence traces from bisulfite-treated DNA to find nucleotide differences.

No charge 30 day trials of Mutation Surveyor, with the Methylation detection function are available for download at <http://www.softgenetics.com/downloads.html>. The company also offers no cost web based virtual training on the use of the software. Interested parties should contact John Fosnacht via email: john@softgenetics.com to arrange for the virtual training and demonstration.

