SOFTGENETICS®
Software *PowerTools* for Genetic Analysis

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FOR IMMEDIATE RELEASE

New "Flow-Based" assembler developed for Ion PGM available in NextGENe software

January 5, 2012, State College PA SoftGenetics announced the development and release of a new assembly technology for use with data from the Ion Torrent PGM sequencing system. The Ion Torrent PGM is a "post-light" technology, utilizing a silicon chip which contains millions of individual pH meters. Its flow-based approach detects pH changes caused by the release of hydrogen ions during incorporation of unmodified nucleotides in DNA replication. Due to this different approach in DNA sequencing the instruments and reagents are much less expensive however it does have a unique error profile with most errors being indels rather than substitutions, especially in homopolymer regions.

Dr. Jonathan Liu, VP Development at SoftGenetics, indicated that "these errors are more problematic for assembly than substitution errors because of the increased complexity of gapped comparison. NextGENe software, version 2.2 includes an exclusive "flow-based" assembler, Floton™, which is able to treat homopolymer errors as substitution errors. In doing so, it is possible to correct the errors during the assembly process. The Floton method condenses the sequence into flow calls of individual bases and the number of bases in each flow. By converting the sequence data into the flow format, the indels are essentially converted into substitution errors, allowing for more accurate and faster assembly."

Megan Manion, NextGENe Technical Product Manager, indicated that "in practical application of the Floton assembler users are experiencing substantial increases in assembly accuracy, when assembly results are compared to a reference genome, versus "base-space" assembly methods".

The company offers 30-day trials and no cost web-based training on its genetic analysis software packages. Interested parties may request the software on the company website: www.softgenetics.com or via email: info@softgenetics.com.

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SoftGenetics, LLC specializes in the development of genetic analysis tools for both research and diagnostic applications. Hallmarks of SoftGenetics software tools are advanced technologies, providing exceptional accuracy, and sensitivity in an easy-to use Windows® user interface.

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