

For Immediate Release

## Convey Hybrid-core to Speed Genomic Research at Broad Institute

## —System Will Be Used to Accelerate Pipelines, Increase Efficiency and Reduce Cost of Ownership—

Richardson, Texas–February 25, 2013–Convey Computer today announced that the <u>Broad Institute</u> has installed a Convey HC-2 system as part of their high performance compute farm. The Broad Institute plans to use the system to accelerate their genomic pipelines and reduce their overall cost of analysis. Located in Cambridge, Massachusetts, the Broad Institute is one of the leading biomedical and genomic research centers, producing terabases of sequence data per day.

Convey is working closely with the Broad as they integrate the Convey system into their world class pipeline. "We are pleased that the Broad has selected Convey to accelerate critical portions of their next-generation sequencing analysis pipeline," explained Dr. George Vacek, Director of Convey Computer's Life Sciences business unit. "Broad is a leader in the adoption of new sequencing technology and in development of corresponding analysis methods. Our ongoing relationship to optimize their analysis tools will have a high impact on researchers worldwide."

The Broad Institute purchased the Convey system to explore how the hybrid-core computer could accelerate their pipelines while reducing costs. "Although BWA<sup>1</sup> is not a large part of the overall pipeline wall time, in terms of CPU dollars spent it is a very large component," explained Tim Fennell, Director of Informatics for the Broad's Genomics Platform. "With the Convey system, we expect to increase performance of BWA tenfold. The Convey system will allow us to increase our efficiency and complete more analysis per dollar."

<sup>&</sup>lt;sup>1</sup> Burrows-Wheeler Aligner (BWA) is an efficient program that aligns relatively short nucleotide sequences against a long reference sequence such as the human genome.

Installation of the Convey system at the Broad was quick and easy. "Installing the Convey system was just like installing any other piece of compute hardware. It required no customization at all, fitting naturally into our existing infrastructure," said Eric Jones, Manager of Research Computing. "Additionally, I'm impressed with Convey's customer support; I can quickly and easily talk to knowledgeable people."

Convey's hybrid-core architecture pairs classic Intel® x86 microprocessors with a coprocessor comprised of FPGAs. Particular algorithms—BWA-based alignment, for example—are optimized and translated into code that's loadable onto the coprocessor at runtime. The systems help customers dramatically increase performance over industry standard servers while reducing energy costs associated with high-performance computing.

## **About Convey Computer Corporation**

Based in Richardson, Texas, Convey Computer breaks power, performance and programmability barriers with the world's first hybrid-core computer—a system that marries the low cost and simple programming model of a commodity system with the performance of a customized hardware architecture. Using the Convey hybrid-core systems, customers worldwide in industries such as life sciences, research, advanced analytics, and the government/defense are enjoying increased application performance and lower costs of ownership. <a href="https://www.conveycomputer.com">www.conveycomputer.com</a>

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