

Einstein offers easy-to-use genome analyzer to scientific community

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Scientists at Albert Einstein College of Medicine of Yeshiva University have developed a desktop genome analyzer and browser that allows biologists to rapidly and easily analyze and process their high-throughput data. The open-source software, called GenPlay, is described in the May 19 online edition of *Bioinformatics*.

Currently, [genomic data](#) is analyzed mainly by information specialists rather than by the [biologists](#) who designed the experiments that produce the data. GenPlay was created with the goal of offering biologists a user-friendly, multi-purpose tool that can help them visualize, analyze and transform their [raw data](#) into biologically relevant tracks.

“The first human [genome](#) was sequenced 10 years ago by an international consortium at a cost of \$7 billion,” notes GenPlay co-developer Eric Bouhassira, Ph.D., senior author of the *Bioinformatics* article, professor of medicine and of cell biology, and the Ingeborg and Ira Leon Rennert Professor of Stem Cell Biology and Regenerative Medicine at Einstein. “But today, a complete genome can be sequenced for less than \$10,000 and the cost is predicted to drop to less than \$1,000 in a few years. The dramatic dip in cost has led to the creation of an avalanche of new data that biologists are having trouble analyzing. GenPlay is intended to make it easier for biologists to make sense of their data.”

A dozen or so genome browsers are currently available. GenPlay offers a major advantage over the others, says Dr. Bouhassira, because it

“emphasizes letting biologists take control of their own data by providing continuous visual feedback together with extremely rapid browsing at every decision point during an analysis.”

GenPlay handles three major types of data: data from gene expression studies, epigenetic data, and single nucleotide polymorphism (SNP) data. The free GenPlay software is available from www.genplay.net . The code source of the software is available at genplay.einstein.yu.edu/svn/GenPlay .

The *Bioinformatics* paper is titled “GenPlay, a Multi-Purpose Genome Analyzer and Browser.” The lead author of the paper is Julien Lajugie, M.S., associate in Einstein’s department of medicine, who co-developed GenPlay and wrote the GenPlay program. The project was funded by New York State Stem Cell Science (NYSTEM).

Provided by Albert Einstein College of Medicine

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