

**Bill Worzel Gives Seminar on Genetic Programming  
at the National Center for Integrative Biomedical Informatics “Tools and  
Technology” Series**

**Ann Arbor, MI, August 4, 2008-** Genetics Squared President and Chief Technology Officer, Bill Worzel, spoke about genetic programming to the NCIBI at a seminar that was webcast from the University of Michigan in Ann Arbor, Michigan. The presentation, entitled “Asking the Right Question: Using Genetic Programming to Understand Molecular Data,” took place July 24 and was part of the “Tools and Technology” series.

Worzel discussed how the questions researchers ask when doing an analysis can lead to unexpected results. His talk centered around the use of genetic programming to analyze molecular data and the unexpected results from this analysis. Genetic programming is a machine learning technique that uses algorithms similar to biological evolution to find solutions to problems. It often leads to different and sometimes very novel observations than those resulting from simple, specific questions.

In the presentation, Worzel used the example of collaboration between Genetics Squared, Inc. and the University of Southern California to examine how genetic programming could be used to predict the T-stage of bladder tumors. While the original analysis showed a weak correlation between genomic markers and T-stages, by analyzing the results of the study, Worzel and his collaborators were able to discover a distinct signature of primary tumors that have metastasized to nearby lymph nodes. By applying genetic programming, researchers were able to observe relationships that led to novel questions about the data, and eventually to a predictive rule regarding bladder cancer metastasis. The full talk and Q&A may be viewed in the July 24, 2008 archive at <http://portal.ncibi.org/gateway/tandtarchive.php>

Genetics Squared works to provide targeted and effective diagnostics, prognostics and therapeutics to clinicians worldwide. Using Evolver<sup>TM, a</sup> proprietary non-statistical computational platform, the company applies genetic programming to clinical and biological data analysis.