

**E0057**

**The Biological Crystallization Resource: Towards Knowledge-Based Crystallization Screens.**

Chunmin Li<sup>1</sup>, Kevin L. Kirkwood<sup>2</sup> and Gary D. Brayer<sup>1</sup>, <sup>1</sup>Dept. of Biochemistry and Molecular Biology, Univ. of British Columbia, Vancouver, B.C., Canada V6T 1Z3, <sup>2</sup>True Logic Consulting, Coquitlam, B.C., Canada V3E 2C7.

The Biological Crystallization Resource (BCR) is a newly formed comprehensive database of crystallization conditions that has been created through the use of data mining techniques. The goal of this work is two-fold. First, to compile a complete record of all published biological crystallization procedures and experiments. This work is ongoing with the BCR database now having well over 15,000 entries. Second, the acquired data is being logically standardized and arranged so as to be accessible to a variety of data search and statistical analysis tools. Currently the BCR database can be queried in a multi-parameter mode and outputs observed optimal ranges of crystallization conditions based on input biological molecule search parameters. The goal is to be able to produce knowledge-based crystallization screen predictions that will increase the probability of successfully crystallizing biological molecules in a high throughput mode to facilitate structural genomics studies.