

## High Throughput Technologies in Structural Biology

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During the past few years, progress has been made in developing high throughput technologies for protein cloning, expression, purification, crystallization, crystal imaging, and synchrotron beamline data collection. Recently, we have been able to miniaturize, automate and parallelize the structural biology processes significantly using nanoliter volume technologies (see <http://stevens.scripps.edu/webpage/htsb> for examples). Accordingly, significantly smaller amounts of materials can be used at all steps, and more parallel experiments can be engineered (genetic and mechanical) within the same space and time constraints. The next phase of this effort includes integration and improved system processing. A description of these technology developments, current status, and examples will be described.

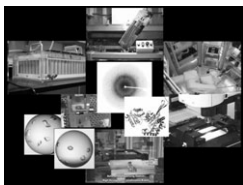


Figure 1. Sample of technologies that have been created in the past few years that include robotics systems for expression, protein purification, imaging, and analysis.

**Acknowledgements:** I am grateful for the cooperativity of the combined effort of researchers from the Joint Center for Structural Genomics (NIH PSI GM062411), JCIPT (NIH Roadmap Initiative P50GM073197), Genomics Institute of the Novartis Research Foundation, The Scripps Research Institute, and Syrrx.

**Keywords:** structural genomics, structure based drug discovery, high throughput structural biology