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 and parallelize the structural biology processes significantly using nanoliter volume technologies. 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. A description of these technology developments and the current status of throughput will be described. Applications of the technologies towards genomes, pathways, and drug discovery will be included.

Keywords: STRUCTURAL GENOMICS, HIGH-THROUGHPUT