SY-II-4 STRUCTURAL CHEMOPROTEIOMICS - BASED DRUG DISCOVERY

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With the integrated platform technology to obtain soluble, active, pure and homogenous forms of disease related target proteins, the 3-D structures of the proteins are determined efficiently. The novel drug leads based on the 3-D structures can be generated rapidly using the technology named Structural ChemoProteomics (SCP^{TM}). This technology includes the proprietary *in silico* screening, SCP-NMR technique, and generating highly focused chemical libraries based on the folding dictionaries of active sites of target proteins such as kinases, phosphodiesterases and proteases. The developmental drug candidates are synthesized by the platform technology called Structure-based Drug Factory: SDF^{TM}, which productively optimizes novel drug leads to candidates using the 3-D structural informatics of the complexes of target proteins and leads. This technology includes x-ray crystallography, proprietary leadinformatics and smart chemistry with combi-chem, parallel and microwave synthsis. Based these platform technologies, we can generate at least one candidate per year and will introduce our R & D pipeline.

Key Words: Drug discovery, Target protein, Structual chemoproteomics, Drug candidate