In Vitro Pharmacology

The cornerstone of ChemDiv's *in vitro* pharmacology is a broad expertise in target-specific molecular interactions coupled with state-of-the-art technology platforms. Our team of scientists with extensive industrial experience, supports the *in vitro* pharmacological characterization of compounds as part of hit identification, hit expansion, lead series identification, and lead optimization processes with emphasis on novelty to generate target-relevant high-quality data and New Chemical Entity in a short turnaround time.

The Company's offering includes:

- Development of biochemical and cell-based functional assays
- Secondary and tertiary characterization of screening hits
- Compound characterization as part of hit-to-lead and lead optimization programs
    - Design and synthesis of novel small molecule entities in a target-relevant space
    - Design and implementation of target-relevant screening cascades
        - Potency and selectivity assessment
        - Mode-of-action studies (e.g. competitive *vs*. allosteric, reversible *vs*. non-reversible etc.)
    - Translational assays (rodents, primates, or humans)
        - Disease-relevant primary and engineered cells
        - Surrogate ADME assessment (such as solubility, microsomal stability, CYP inhibition, plasma protein binding, CACO-2 permeability)

- Pharmacokinetics and Pharmacokinetics/Pharmacodynamics in rodents

More than 15 years of compound profiling campaigns at ChemDiv yielded hundreds of assays developed and executed in different formats: from Low Throughput to Mid and High Throughput. The in vitro Pharmacology is part of ChemDiv’s integrated lead finding and optimization projects as well as is frequently used to support medicinal chemistry projects that are executed in labs of ChemDiv’s customers.