High Throughput Screening

ChemDiv is proud to offer unparalleled capabilities in Drug Discovery. Our screening approach to high throughput hit hunting tremendously benefits from the application of our proprietary focused discovery sub-libraries assembled from the ChemDiv's ever-growing collection of 1.5 million small moleculesbeing synthesized based on unique ideas of novel templates. Design of these subsets provides a very robust way for identifying and confirming hit compounds with immediate mini-SAR analyses of the hit series, which serve as a starting point for medicinal chemistry hit-to-lead exploration and lead optimization.

We have assembled a robust screening infrastructure to be able to work with targets of major therapeutics areas. Our technical park of Discovery Division includes:

Equipment

- Liquid Handling
  - Biomek 2000,
  - Biomek NX,
  - Biomek FX work station
  - 96/384-well plate readers;
    - FLIPR-Tetra (Molecular Devices)
    - Microbeta PLUS 1450 (PerkinElmer),
    - scintillation counters;
    - Victor2V and Victor 3 multimode;
    - SpectraMax Plus 96/384;
    - Mach III (Tomtec) 96-well cell harvester;
    - Beckman and GUAVA 96/384 well format Flow Cytometers.

Readout capabilities

- Luminescence: Reporter genes; ELISAs;
- Fluorescence: FLINT, FRET, TR-FRET, FP, GFP; ELISAs

- Radio-Isotope: Receptor assays (ligand-binding/competition), SPA, metabolic enzymes

Absorbance: OD, ABS spectra

Ready to deploy assays

- In vitro assays:
  - FLIPR (cytoplasmic and mitochondrial calcium),
  - LANCE (cytoplasmic cAMP/cGMP),
  - ELISA,
  - Western,
  - Kinase activity, Enzymatic activity
- Cell Assays:
  - cell growth,
  - cell cycle analysis,
  - apoptosis/necrosis,
  - in vitro chemoinvasion,
  - high content high throughput microscopy
- Molecular and Cell Biology:
  - Custom Expression / Reporter Constructs;
  - Transient/stable transfection.
  - Cell lines and primary cultures;

Custom Assay Development (per Clients' specification)