## Pharmacokinetic studies in mice or rats

**Background and Service Details:** Pharmacokinetic (PK) studies can significantly vary in design depending on their goals and parameters of the tested compounds. We offer PK in common inbred mouse lines (C57BL, –ICR (CD-1), or BALB/c) or Wistar rats. A typical PK study in mice involves two drug delivery routes (e.g. PO and IV), 6 time points for each route (for example - 5, 15, 30, 60, 120, 240 min for IV and 15, 30, 60, 120, 240 and 360 min for PO) and 4 animals per each time point group/route, plus the common control plasma group (”0”) – 50 animals in total. We will prepare blood plasma samples and measure compound concentrations by LC-MS/MS using Applied Biosystems/PE Sciex API3000 mass spectrometers and Shimadzu VP HPLCs. Cassette dosing, analyte measurements in different tissues, measurements of various pharmacodynamic parameters, development of optimized drug delivery formulations, as well as metabolite ID services are offered at an extra charge.

**Deliverable:** A detailed study report including full description of study design, analytical method development, calculations of all common PK parameters and PK graphs. Raw experimental data are available upon request.

**Sample Submission:** Dry compound or compound in a pre-made animal dosing formulation. Amounts depend on the dosing levels. For a PK study in mice at 10 mg/kg PO and 10 mg/kg IV about 16 mg of compound is required. We do not need to know structures of the molecules for ADME testing. However, brutto formulas have to be provided for all studies involving MS detection.