Services offered by EU-OPENSCREEN

Service/Tool Name	Description	Contact	Mode of access
Assay adaptation	Once a robust, sensitive and physiologically relevant bench-top assay is in place, dedicated assay adaptation groups, in close collaboration with the User, will adapt bench-top protocols into an High-troughput screening (HTS) format. This assay adaptation process will involve a strong emphasis on quality, including: quality control of reagents; (patho-)physiological relevance; pharmacological consistency; robustness; minimised variability; and tracking of statistical descriptors (e.g. signal to background and the Z' factor). A pilot library 5,000 compounds is available to help validate assays and potentiate larger projects.	office@eu-openscreen.eu	Users are requested to submit project proposal to the EU-OPENSCREEN office
Compound/drug screening	HTS of an assay against the EU-OPENSCREEN chemical collection (> 100,000 compounds); *in silico* profiling, including basic chemoinformatic analysis and identification of frequent hitters and other potential false positives; hit selection; confirmatory screening, including orthogonal assay and IC/EC50 determination; basic counter screening; basic SAR based on screening data; QC of confirmed hits. Screening platforms provide state-of-the-art technologies, e.g. absorbance, luminescence, fluorescence, (time-resolved) FRET/BRET, FLIPR, and AlphaScreen, and implement assay formats such as cell-based, biochemical and (to a limited extend) model organisms-based assays.	office@eu-openscreen.eu	Users are requested to submit project proposal to the EU-OPENSCREEN office. A compound replenishment fee structure applies to all projects and users from countries which are members of the ERIC will receive a discount on this cost.

(Medicinal) Chemistry services	Evolvement of structure-activity-relationships (SAR) to enable the design of new improved compounds. Depending on the optimization aim, a variable set of biophysical and pharmacological profiling data as required for the project will be collected (e.g. compound solubility in aqueous solutions, cellular membrane permeability (PAMPA, Caco-2), stability in liver microsomes (mouse, human), serum protein binding, cytotoxicity), and, if requested, pharmacokinetic evaluation in mice or rats, and *in vivo* general tox (zebrafish, mouse).	office@eu-openscreen.eu	Users are requested to submit project proposal to the EU-OPENSCREEN office
Bioprofiling of donated compounds	All compounds donated by the user which enter the EU-OPENSCREEN ERIC compound collection are characterised and annotated for basic physico-chemical (e.g. identity, solubility, light absorbance and fluorescence) and essential to know biological properties (cytotoxicity, antibiotic, antifungal etc.) by testing in a standard panel of assays.	office@eu-openscreen.eu	Users are requested to contact the EU-OPENSCREEN office
Provision of standardised data	All data generated through QC/bioprofiling and screening activities will be published in EU-OPENSCREEN's open-access database with an optional 'grace' period (i.e. delayed publication of data). Large-scale open-access data provide the basis for computational data integration to obtain a systematic view, allow for prediction of drug-target interactions and networks as well as of adverse effects and drug combinations.		Open-access. (The access to the database will utilize the facilities of ChEMBL.)
Training and education	Training of second (master) & third (PhD) cycle students, postdoctoral scientists and principal investigators in chemical biology in compound management, process automation, IT, assay development and screening.		