

“Screening in an Academic Setting: BSF-ACCESS”

January 20, 2015

EPFL – Conference Room AI 1153

(MAP: <http://plan.epfl.ch/?lang=en&room=AI+1153>)

Registration: <http://sv.epfl.ch/platforms-registrationBSF>

OPEN TO RESEARCHERS FROM SWISS ACADEMICAL INSTITUTIONS AND INDUSTRIAL ORGANIZATIONS

The aim of this course is to give an overview of screening project handling and management at the Biomolecular Screening Facility of the EPFL. This one-day training is separated **in 2 parts**, the first one dedicated to the general presentation of the platform and screening projects, the second one focused on assay development-validation. Both parts will be mainly based on and driven by the large experience of the facility (more than 60 diverse projects handled during the last 9 years).

In the framework of the NCCR for Chemical Biology, any Swiss-based academic researcher potentially interested in performing screenings in our platform or having access to our collections or facilities is highly encouraged to participate.

Part 1: Overview of the Screening platform and projects (9:30 - 12:30) - Dr Gerardo Turcatti

The aim of the first part is to give an overview of the Biomolecular Screening Facility of the EPFL. The different key aspects and steps of a screening project will be described and illustrated through representative case studies of the platform covering the main categories of assays and screens: *in vitro* biochemical target-based assays, cellular reporter assays and image -based phenotypic screens. A particular attention will be pointed out on setting realistic time lines and cost estimation of a screening campaign, as well as emphasis on generating efficient collaborative interactions.

For illustrating a whole screening campaign diverse cases will be presented by project members who collaborate with our platform.

This theoretical class will be followed by a visit of the laboratories.

Part 2: Developing assays for High Throughput Screening: design, implementation and validation (13:30 - 16:30) - Dr Marc Chambon

The second part deals with one of the most critical parts of a screening project, the development of the assay. The design of valuable screening assays including all the steps of the assay development and validation process will be extensively covered. Selected examples will be used for translating a biological question into a test that can be transferred into a validated automated screening assay. The advantages and limitations of the assay options will be carefully discussed in order to define the best strategies for primary screening, hits selection and secondary screening assays.

To encourage the interactivity, any attendee with a screening project proposal is welcome to propose a short presentation of the screening project.

BSF website : <http://bsf.epfl.ch>

