



Czech Centre for Phenogenomics

Open call for collaborative projects

PRECLINICAL TESTING OF VENOM-DERIVED COMPOUNDS

Call information

Context and aims of the call

The main objective of this open call is to facilitate access for the wider biomedical research community to a unique phenotyping infrastructure “Czech Centre for Phenogenomics”. The open call supports researchers in searching for the novel utilization of venom derived compounds and identifying their translational potential and identifying physiological functions of toxin compounds. The Czech Centre for Phenogenomics (CCP; <https://www.phenogenomics.cz/>) will provide the following services free of charge:

A) Acute toxicity tests (LD50 test) to determine the mean lethal dose of the test substance

Expected number of compounds to be tested in the framework of this topic: 5

B) Primary preclinical testing of venom-derived compounds of interest

Expected number of compounds to be tested in the framework of this topic: 5

Known compound in a defined concentration and its lethal dose (LD50) have to be stated in the application.

An applicant can select one test, which will be provided free of charge by CCP. The following types of tests are available in this call:

1. Cardiovascular parameters from echocardiography and ECG recordings.
2. The acute intervention of metabolism will be tested in glucose clearing test, where the intraperitoneal glucose tolerance test (IGTT) will be carried on with simultaneous application of a tested compound and followed by glucose measurements in multiple time points for 2 hours. The area under curve will be quantified.
3. The complete clinical biochemistry analysis will be proceeded for every compound tested together with haematology, coagulation tests and histopathological analysis of mouse organs.
4. Xenograft models – simple proof-of-concept experiment to determine the potential for further examination of the compound. The samples for implantation or xenografts will be placed subcutaneously or orthotopically (limited to breast cancer) and then the tumour dynamic growth will be examined. Only common characterized cell lines with clear mycoplasma status are accepted.

In addition, the applicant may demand additional tests and/or a complex analysis, which costs will be charged upon individual agreement between the applicant and CCP.

The secondary preclinical testing is not part of this call and can be negotiated for the most perspective candidates, which will show effect in the primary preclinical pipeline. These compounds will be evaluated in the secondary preclinical pipeline with focus on human disease models.

All tests will be performed according to the robust reproducible SOPs with integration of data in database with statistical approaches analogously as CCP provides for gene function annotation under umbrella of the International Mouse Phenotyping Consortium.

Eligibility: This open call is open to researchers working for academic institutions and conducting independent/basic research, e.g. universities and research institutes. This call is not intended for companies. However, companies can apply for cost optimized testing too.

Application: Service requests can be made via this application form. Applicant are requested to submit the application to the email address: ccp-calls@img.cas.cz.

The collection dates are indicated on the EUVEN website.

Selection procedure: Proposals from eligible users for free of charge access will be subject to a review procedure. The evaluation will be done jointly by an external scientific committee (EUVEN experts) and by the CCP executive board.

Selection will be done merely on quality, impact, and feasibility. A potential for translational application of substance's function and its possible exploitation will be assessed.

Applicants will be informed on the outcome of the evaluation within one month after the submission date. All applications will be handled with strict confidentiality.

The completion of the selected projects is expected within six months from acceptance. Selected applicants and CCP will sign a Material Transfer Agreement prior to samples shipment.

Czech Centre for Phenogenomics (CCP)

The Czech Centre for Phenogenomics provides expertise and services to the biomedical research community, which study the function of genes in biological processes and / or human disorders in vivo using mouse or rat models. CCP covers a full spectrum of genetic engineering services, strain cryopreservation and archiving services, advanced phenotyping and imaging services, as well as specific pathogen free (SPF) animal housing and husbandry.

More info: <http://www.phenogenomics.cz>
