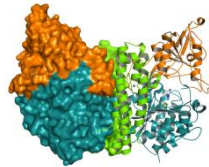


## PhD student position

### Physiological functions of GCPII orthologs in basal organisms



**Summary:** Human glutamate carboxypeptidase II (GCPII) is a zinc-dependent peptidase that is increasingly recognized as a target of therapeutic interventions in a variety of neurologic disorders as well as a marker for imaging and therapy of prostate cancer. However, despite of nearly universal expression of GCPII-like protein in living organism there is limited knowledge of physiological function(s) of its orthologs in non-mammalian species.

**Project:** The project focuses on structure-function studies of non-mammalian orthologs of human GCPII, including enzymes from *C.elegans*, *F.hepatica*, *D.rerio*, *A.thaliana*, *S.mansoni* and yeast species. Used methodology includes cloning strategies (Gateway), mutagenesis, heterologous protein expression in various systems (*E.coli*, *K.lactis*, insect and mammalian cells), protein purification and characterization, enzymatic assays including high-throughput library screening, inhibition studies, cell biology (fluorescent microscopy), and X-ray crystallography. We believe that unravelling physiological function(s) of these proteins in non-mammalian species could shed light unto yet unknown functions of the protein in mammals, including humans.

**Qualifications:** Applicants should have a solid background in molecular biology and biochemistry or cell biology. We expect good communication skills, analytical thinking and the ability for teamwork. The successful candidate will participate in a PhD program at Charles University in Prague. The starting date is summer/fall 2016.

**How to Apply:** For more information please contact Cyril Bařinka ([cyril.barinka@ibt.cas.cz](mailto:cyril.barinka@ibt.cas.cz)) directly.

Cyril Barinka, PhD  
Laboratory of Structural Biology  
BIOCEV, Centre of Excellence  
25242 Vestec u Prahy  
<http://academy5.avcr.cz/lb/>