



**Institute of Biochemistry and Biophysics Polish Academy of Sciences
offers PhD scholarship in the project *Thermodynamics of halogen bonding in the bio-molecular cages*
founded by the Polish National Science Centre**

The main objective of the project is to determine experimentally the thermodynamic contribution of a halogen bond to the change of the free energy associated with formation a complex between a small-mass ligand and a bio-molecule. Compounds selected on the basis of preliminary screening tests carried out by means of optical methods for a large series of potential ligands, will be further subjected to detailed thermodynamic measurements for their interaction with the target protein. These thermodynamic data, supported additionally with structural data (crystallography, analysis of structures available in the PDB database and molecular modeling), should enable the description of the thermodynamics contribution of a halogen bond.

Project manager: prof. Jaroslaw Poznański (jarek@ibb.waw.pl)

The maximal period of employment: 33 months. Position opens from 1 April 2018. Scholarship in accordance with the recommendation of the NCN

Requirements.

PhD student will be involved in the screening of halogenated ligands interacting with the reference protein, carried out using Thermal Shift Assay. The interaction of the protein with the ligands selected in this way will be further analyzed qualitatively (fluorescence of the probe attached to the protein) and quantitatively (MST, ITC). Will also contribute in the analysis of crystallographic structures obtained for the selected complexes. Should hold a **master's degree in chemistry/physics** or related sciences. A communicative knowledge of English is required. An additional advantage will be the documented experience in the application of biophysical methods (spectroscopy, calorimetry, and crystallography).

Candidates are requested to submit the following documents jarek@ibb.waw.pl:

- a copy of the diploma;
- reviews of the M.Sc. thesis (thesis also welcomed);
- *curriculum vitae* (marked "I agree to the processing of my personal data included in the offer for the recruitment process in accordance with the Data Protection Act of 29.08.1997., Dz. U. No. 101, item. 926, as amended.");
- Cover Letter;
- a letter of recommendation from supervisor of M.Sc. thesis and/or academic tutor for persons with subsequent research experience;
- a list of published papers and conference announcements.

The selection of the candidate will take place in two stages.

1. The Admissions Committee (consisting of 2 researchers from IBB PAS and Project Manager) will evaluate the documents. On the basis of this analysis will be selected individuals (at least two), which will be invited to the second stage of the competition.
2. The interview of selected candidates with the Commission (27-28.03.2018)

The contractor of the project will be selected on the basis of the conversation. All applicants will be notified of the outcome of the selection procedure. Applications must be submitted by **19 March 2018** to Project Manager jarek@ibb.waw.pl