

Institute of Biochemistry and Biophysics is seeking a contractor for the OPUS project "Halogen bond in protein-ligand systems. Thermodynamic and structural studies of rationally selected complexes and analysis of all structures available in the PDB database" funded by the Polish National Science Centre.

The main objective of the project is to determine experimentally the thermodynamic contribution of halogen bonds to the change of the free energy that accompanies the formation of a complex between a small molecule ligand and macromolecule in aqueous solution. The resulting thermodynamic data, supplemented by structural studies (crystallography analysis available in the PDB structure and modeling), should allow a more complete description of the relationship between the properties of the free ligand in aqueous solution and halogen bonds that are created in a complex with protein. This results should allow the settlement of differences currently existing in the literature, in which the binding energy of halogen is estimated, depending on the system, in a range of 0.2 to 8 kcal · mol⁻¹.

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

The maximal period of employment: 15 months. Position opens from 1 April 2015. Salary in accordance with the NCN recommendation.

Requirements.

The contractor will oversee the crystallization of protein-ligand complexes, and will be responsible for determination and further refinement of the structure of the complexes of the catalytic subunit of CK2 kinase, and if succeeded, for deposition of the structures in the PDB. Applicant should hold a doctoral degree in chemical sciences or related. Required fluent English and proven experience in determining the crystallographic structures of proteins. Experience in the application of biophysical methods (e.g. optical spectroscopy, calorimetry) will be an additional advantage.

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

- A copy of the diploma
- Reviews of the doctoral dissertation
- *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." or "Wyrażam zgodę na przetwarzanie moich danych osobowych zawartych w ofercie dla potrzeb procesu rekrutacji zgodnie z Ustawą o ochronie danych osobowych z dnia 29.08.1997r., Dz. U. Nr 101, poz. 926 ze zm." in Polish)
- Cover Letter
- A letter of recommendation from supervisor of doctoral dissertation 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 independent 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.

The contractor of the project will be selected on the basis of his/her CV and the conversation. All applicants will be notified of the outcome of the selection procedure.

Application deadline: **15 March 2015** to be sent to jarek@ibb.waw.pl