



## FORM FOR EMPLOYERS

INSTITUTION: **UNIVERSITY OF WARSAW, FACULTY OF PHYSICS**

CITY: WARSAW, **POLAND**

POSITION: **POST-DOC**

NUMBER OF POSITIONS: **1**

DISCIPLINE: **BIOPHYSICS, BIOTECHNOLOGY**

POSTED: **31.01.2017**

EXPIRES: **28.02.2017**

WEBSITE: **WWW.FUW.EDU.PL**

KEY WORDS: **NUCLEOTIDES, SULFOTRANSFERASE, KINASE, NUCLEOTIDE ANALOGS, CHEMICAL BIOLOGY, BIOPHYSICS**

### DESCRIPTION (field, expectations, comments):

The successful candidate will be working in the project from National Science Centre, Poland: “Synthesis and evaluation of a novel toolkit for biology and biotechnology based on adenine nucleotides analogs”

About the project: Nucleotides are ubiquitous molecules present in all organisms and fulfilling numerous functions. Rationally designed modified nucleotides can serve as tools useful for monitoring of biological processes linked to nucleotides both *in vitro* and *in vivo* and to influence those processes in desired ways. This project is aimed at the synthesis and biological evaluation of new analogs of selected adenine nucleotides: ATP, PAPS and NAD, which could be useful to study enzymes from kinase, sulfotransferase or pyrophosphatase families. Compounds with most promising properties may find application in biochemical assays, diagnostics and in the search for new inhibitors with therapeutic potential.

### Expectations:

- PhD degree in biology, biophysics, bioorganic chemistry or related area
- Experience in experimental work including: protein expression and purification, enzymatic assays, molecular biology techniques, biophysical studies on protein-ligand interactions
- Scientific achievements confirming qualifications (minimum three significant publications in journals from ISI Master Journal List)
- Fluent in speaking and writing in English

- Good interpersonal skills and strong motivation
- 100% commitment to the project – in the course of the project the candidate cannot be a principal investigator or investigator in another project from the National Science Centre
- Previous experience with crystallographic protein analysis, affinity chromatography, and fluorescence techniques will also be appreciated

#### Tasks:

The postdoctoral research position is funded from National Science Center SONATA-BIS project „Synthesis and evaluation of a novel toolkit for biology and biotechnology based on adenine nucleotide analogs”. Specific tasks include:

- protein expression and purification
- development, optimization and performing enzymatic assays for sulfotransferases and kinases
- Studies on degradation of nucleotides and nucleic acids
- *in vitro* transcription experiments
- affinity chromatography experiments
- Biophysical studies on protein-ligand interactions

#### Conditions of employment:

The successful candidate will be employed at the Faculty of Physics, University of Warsaw (contract of employment, full-time, 36 months).

#### More information

More information about the project and the research group can be acquired from the PI of the project, Dr. Joanna Kowalska ([asia@biogeo.uw.edu.pl](mailto:asia@biogeo.uw.edu.pl)) and the the website of the group ([www.jemielitygroup.pl](http://www.jemielitygroup.pl))

#### How to apply?

Applications should be submitted by e-mail to Dr. Joanna Kowalska ([asia@biogeo.uw.edu.pl](mailto:asia@biogeo.uw.edu.pl))

The candidate should provide the following documents:

1. Curriculum vitae including a description of prior research experience together with the acceptance for the treatment of personal data: “I hereby give consent for my personal data to be processed for the purposes of recruitment, in accordance with the Personal Data Protection Act dated 29.08.1997 (uniform text: Journal of Laws of the Republic of Poland 2002 No 101, item 926 with further amendments)”
2. Cover letter
3. Copy of PhD diploma and a transcript of record from PhD studies
4. Two letters of recommendation or two reference contacts (with phone numbers and e-mails)
5. List of publications, scholarships and awards
6. List of conference presentations including presentation types and authors

This announcement is the first step in the procedure of employing an academic teacher.