

## Post-doctoral position in Laboratory of Bioorganic Chemistry

The Laboratory of Bioorganic Chemistry lead by Jacek Jemielity at the Centre of New Technologies, University of Warsaw seeks to fill a postdoctoral research position to investigate new therapeutic applications of modified mRNAs or inhibition of nucleotide-processing enzymes of therapeutic relevance by small molecules as a part of ongoing interdisciplinary research project.

**Postdoctoral researcher: A three-year post-doctoral position** funded by a grant of the National Centre of Science (Poland; OPUS program) coordinated by Prof. Jacek Jemielity, is available from **April 2017** at the Centre of New Technologies, University of Warsaw.

### Biochemist/molecular biologist

Ideal candidate profile: We seek motivated candidates with a PhD degree, fluent in English and a strong interest in biochemistry and molecular biology of RNA. The position will involve interdisciplinary research directed at enzymatic synthesis of chemically modified mRNAs and its analysis by means of methods of molecular biology and biophysics. Studies on translation efficiency of modified mRNAs in in vitro and in cellulo systems. The successful candidate will have a PhD in molecular biology, biochemistry or related area with experience in protein expression and purification, enzymology, RNA transcription, RNA transfection and translation in cell lysates and cell cultures. Skills in studying protein-ligand or RNA-ligand interactions by biophysical methods, confocal microscopy and experience in bioorganic/medicinal chemistry will also be appreciated.

How to apply: Applications should be submitted by e-mail to Prof. Jacek Jemielity ([jacekj@biogeo.uw.edu.pl](mailto:jacekj@biogeo.uw.edu.pl)) no later than **28th of February 2017 at 12:00 (GMT+1)** with the term "Postdoc position" as email's topic. Application should include:

- a cover letter
- curriculum vitae including a description of prior research experience
- a list of publications and conference presentations
- reference contact list (with phone numbers and e-mails; at least two reference contacts are expected from post-doc candidates and one contact from Ph.D. candidates)

Following an initial screening of the applications, selected candidates will be contacted by e-mail for further recruitment steps.

### *About Laboratory of Bioorganic Chemistry:*

We are an interdisciplinary group of chemists, biologists, and biophysical researches. We are focused on the synthesis, properties and applications of modified nucleotides (including analogs of mRNA 5' cap, nucleoside triphosphates, nucleotide sugars, nucleoside phosphosulfates and

many others). The main goal of our research is to create tools useful for elucidating biological processes involving nucleotides and to find new potential nucleotide-derived therapeutics.

To do so, we develop new synthetic methods for the chemical and enzymatic synthesis of nucleotides and their analogs. We are particularly interested in the synthesis and properties of nucleotides modified within the phosphate moieties, and fluorescently labeled nucleotides. We design nucleotide analogs that increase cellular stability of mRNA and nucleotide-derived inhibitors of protein biosynthesis with increased stability under cellular conditions. We synthesize fluorescently labeled nucleotides, nucleotides with affinity tags as well as nucleotide-probes for NMR and EPR experiments. We also prepare and evaluate conjugates of nucleotides with nano(bio)materials. Finally, we are interested in the development of inhibitors of nucleotide-processing enzymes. More information is available at [www.jemielitygroup.pl](http://www.jemielitygroup.pl)