

JOB OFFER

Position in the project:	Undergraduate student
Scientific discipline:	Organic chemistry, biochemistry
Job type (employment contract/stipend):	stipend
Number of job offers:	2
Remuneration/stipend amount/month (<i>"X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"</i>):	2000 PLN
Position starts on:	1st July 2018
Maximum period of contract/stipend agreement:	12 months
Institution:	University of Warsaw, Centre of New Technologies
Project leader:	Jacek Jemielity
Project title:	New selective inhibitors of cap dependent proteins: synthesis, delivery and characterization
Project description:	Our research encompasses improving methods for the chemical synthesis of nucleotide analogs, designing new modified nucleotides as tools for molecular biology and conjugating nucleotides to labels, tags and new materials. One of our particular interests, is development of eukaryotic mRNA cap analogs with potential medicinal applications. Laboratory of Bioorganic Chemistry is 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. 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. The selected candidate is expected to use cutting-edge bioorganic chemistry technologies within novel cap analogs modified within the 7-methylguanosine.
Key responsibilities include:	1. Synthesis of cap analogs modified within 7-methylguanosine region 2. Synthesis of cap analogs modified within triphosphate bridge region 3. Synthesis of molecular probes and bioconjugates
Profile of candidates/requirements:	1. Master's students in Chemistry, Physics or another relevant field 2. Great communication skills and a passion for life sciences

	3. Strong hands-on experience in organic chemistry techniques, with working knowledge of bioorganic compounds synthesis, purification and identification 4. Practical experience with NMR, MS and HPLC support, NMR data analysis and graphic software is a big plus
Required documents:	1. CV 2. cover letter 3. publications and conference presentations list 4. reference contact list
Please submit the following documents to:	j.jemielity@cent.uw.edu.pl
Application deadline:	1st June 2018 The best candidates will be invited to job interviews between June 11-12.
For more details about the position please visit:	www.jemielitygroup.pl

Please include in your offer:

"I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended."