

JOB OFFER

Position in the project:	Postdoc
Scientific discipline:	Chemistry/Physics/Biophysics
Job type (employment contract/stipend):	Contract
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>):	8000-10000 PLN/month gross
Position starts on:	02.09.2019
Maximum period of contract/stipend agreement:	36
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	Joanna Sulkowska, associate professor
Project title:	Mysteries of entanglement - proteins, life and physics
Project description:	<p>The goal of this project is to develop new methods to apply experimental data from NMR and optical traps to expand our knowledge of proteins with non-trivial topology. Currently it is still not known how to untie experimentally knotted proteins by chemical or thermal denaturation. Therefore our goal is to determine their function and the folding process (the free energy landscape) through the single molecule level approach (AFM, optical traps). Moreover, to fully understand these exotic structures, their degradation in proteasome will be investigated via the NMR (in deuterated water). The role of applicant will be to include these data into computational study. Thus, through the use of multiscale computational methods, we will investigate on one hand the conformational stability, the strength of the internal interactions, as well as routes to tie/untie proteins, and on the other hand we will use state-of-the-art methods to take into account non-trivial topology of investigated proteins. In this work we will use a combined coarse grain and explicit solvent molecular dynamics / replica exchange approaches and statistical mechanics methods to determine unbiased landscape of proteins with non-trivial topology.</p>
Key responsibilities include:	<ol style="list-style-type: none"> 1. Performing research on theories of biopolymers, through single molecule level approach, computer simulations and machine learning approach. 2. Preparation and dissemination of the research results at international workshops and conferences, writing publications.
Profile of candidates/requirements:	<p>The successful post-doc candidate will have a PhD degree in physics/chemistry or related discipline, very good experience in conducting molecular modeling, multiscaling modeling. Experience with high-performance computing, knowledge of Python and scientific computing libraries and Linux environment is necessary. Although not required, any previous experience in investigation of proteins on the single molecule level would be welcome. Scientific achievements confirming the qualifications will be required (at least two significant publications after finishing PhD studies or a previous post-doc). PhD should be obtained no sooner than 7 years before the starting year of the employment in the project.</p>

Required documents:	Two letters of recommendation, a copy of a PhD certificate (PhD obtained no sooner than 7 years before the starting year of the employment in the project), short CV (up to two A4 pages), motivation letter.
We offer:	An opportunity to participate in a multidisciplinary project in one of the best scientific institutions in Poland. Stimulating, young and friendly work environment. Access to high-end computing equipment (CPU clusters). Opportunity to participate in COST network and various EMBO workshops.
Please submit the following documents to:	Please send your application to: j.sulkowska@cent.uw.edu.pl
Application deadline:	26 August 2019

To allow us to process your data, please include the following statement in your application:

"I hereby consent to have my personal data processed by the University of Warsaw with its registered office at ul. KrakowskiePrzedmieście 26/28, 00-927 Warszawa for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw. I have been informed of my rights and duties. I understand that provision of my personal data is voluntary."

In accordance with Article 13 of REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data – general regulation on data protection (Official Journal of the EU L 119/1 of 4 May 2016) the University of Warsaw informs that:

1. The Administrator of your personal data is the University of Warsaw with its registered office at KrakowskiePrzedmieście 26/28, 00-927 Warszawa;
2. The Administrator has designated the Data Protection Officer who supervises the processing of personal data, and who can be contacted via the following e-mail address: iod@adm.uw.edu.pl;
3. Your personal data will be processed for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw;
4. The provided data will be processed pursuant to Article 22(1) § 1 of the Act of 26 June 1974 Labour Code (uniformed text: Dz.U. of 2018, item 917) and your consent for processing of personal data;
5. Provision of data in the scope stipulated in the Labour Code is mandatory (this is: name(s) and surname, parents' first names, date of birth, address of residence, correspondence address, education, previous employment);
6. The remaining data are processed according to your consent for processing of personal data;
7. The data will not be shared with any external entities, except for the cases provided for by law;
8. The data will be stored until you withdraw your consent for processing of personal data;
9. You have the right to access your personal data, rectify, erase, restrict its processing and to withdraw the consent at any time – the withdrawal of consent to processing data should be done in written form, acceptably by e-mail sent to hr@cent.uw.edu.pl;
10. You have the right to lodge a complaint to the President of the Office for the Protection of Personal Data
11. Your application will be archived and stored for auditing purposes;
12. The name of the selected candidate/s will be made public on the CeNT UW website in accordance with the requirements of the funding agency.