

## JOB OFFER

Position in the project:	<i>PhD student</i>
Scientific discipline:	microbiology, sustainable agriculture, environmental microbiology, biotechnology,
Job type (employment contract/stipend):	<i>scholarship</i>
Number of job offers:	<i>1</i>
Remuneration/stipend amount/month ("X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"):	<i>3 800 PLN of full remuneration cost (scholarship)</i>
Position starts on:	<i>17.10.2022</i>
Maximum period of contract/stipend agreement:	<i>12 months</i>
Institution:	<i>University of Warsaw, Faculty of Biology / Warsaw</i>
Project leader:	<i>Prof. Wojciech Franus</i>
Project title:	<i>Fly ashes as the precursors of functionalized materials for applications in environmental engineering, civil engineering and agriculture.</i>  <b>Project is carried out within the TEAM-NET programme of the Foundation for Polish Science.</b>
Project description:	<p>This TEAM-NET joint project assumes using fly ashes as a precursor for the synthesis of novel functionalized materials with the structure of not only zeolites, but also mesoporous silica materials and metal-organic frameworks (MOFs). Then produced materials will be tested for possible applications in agriculture, civil and environmental engineering. With the implementation of new technologies of coal combustion and flue gas treatment, new types of fly ashes with increased content of unburned carbon (up to 30%) have been produced. Such byproducts will be used in this project for the synthesis of novel zeolite-carbon composites. Previous work related to the use of this type of fly ashes was focused on the separate production of zeolites or activated carbons, which did not fully exploit the potential of the above-mentioned byproducts. Their use as a precursor to the synthesis of a zeolite-carbon-vermiculite composite in this project will also pave the way for developing a novel material to replace vermiculite raw materials in agricultural applications.</p> <p>With this announcement we are looking for a Ph.D. student for the work-package #6 "Production of biostimulants of crop plant growth and of composting process and production of bioinhibitors of phytopathogen growth based on functionalized materials derived from fly ash and bacterial inoculants". The aim of WP #6 is to develop microbial biostimulants of crop plant growth and of biocomposting as well as biological inhibitors of phytopathogen growth. Strains selected from the culture collection of the University of Warsaw will be analyzed for their ability to survive in soil environment (including extreme conditions, e.g. low temperature). The influence of the application of microbial strains on plant biomass, plant resistance to unfavorable environmental conditions and phytopathogen growth in soil will also be analyzed. In the next stage, a process manual for the immobilization of selected strains on functionalized materials and on natural carriers (e.g. zeolites) will be developed. The influence of carrier</p>

	<p>conditioning on the survival and activity of immobilized microorganisms will also be investigated. Experimental verification of biopreparations on the laboratory and pilot scales (pot experiments and micro-field/biocomposter experiments, respectively) will also be carried out. In addition, the effect of biopreparation application on the structure and biodiversity of the soil microbiome (both bacterial and fungal) will be determined.</p>
Key responsibilities include:	<ol style="list-style-type: none"> <li>1. Valorization of agro-waste for the production of value added products</li> <li>2. Molecular study to identifying the key responsible genes required for the production of value added products</li> <li>3. Preparing and writing scientific articles for international journals.</li> <li>4. Tracking current research trends in the scientific literature.</li> </ol>
Profile of candidates/requirements:	<ol style="list-style-type: none"> <li>1. The candidate must have a Master degree in the field of: microbiology or biology, biotechnology,.</li> <li>2. The candidate must be experienced in the subject area of the work-package #6 (see above).</li> <li>3. The candidate must be fluent in English (both speaking and writing).</li> <li>4. The candidate must know the methods which will be used for: (i) characteristics of isolated microorganisms; (ii) enzyme characterization etc. (iii) manipulation of cells, gene insertion, gene expression, cloning and broad experience in microbiology and molecular biology</li> <li>5. Preferentially, the candidate should know and have and an experience in analytical methods used for the analysis of secondary metabolites, organic acids etc</li> <li>6. The candidate must have an experience in taking part in projects in the area of microbiology, enzyme characterization.</li> <li>7. Knowledge of statistics is desirable but not essential</li> </ol>
Required documents:	<ol style="list-style-type: none"> <li>1. Written application for the competition</li> <li>2. Curriculum vitae including: <ol style="list-style-type: none"> <li>2.1. A detailed description of the academic degrees and titles, titles of theses (bachelor and master, along with short description of main achievements in each thesis – up to 300 characters including spaces), years of receiving the degree/academic title, names and affiliation of supervisors and reviewers of each thesis.</li> <li>2.2. The academic career – chronological indication of places of employment with the indication of posts and contact details of the direct supervisor.</li> <li>2.3. List of scientific publications/monographs/books/chapters – including the full list of authors, an indication whether the candidate was the corresponding author of the given publication, title, full title of the journal and 5-year IF.</li> <li>2.4. Participation in conferences (list of conferences in which the candidate took an active part, stating whether it was a lecture or a poster), internships abroad (research stays), and most important trainings.</li> <li>2.5. List of awards and distinctions, including their range (international/national)</li> </ol> </li> <li>3. Recommendation letter from the last employer (direct supervisor)</li> <li>4. Copies of obtained diplomas.</li> <li>5. Documented information about completed courses and trainings.</li> <li>6. Other activities (scientific clubs/circles, student conferences).</li> </ol> <p>All documents must be prepared in the English language</p>
Please submit the following documents to:	<p>dr Kumar Pranaw <a href="mailto:k.pranaw@uw.edu.pl">k.pranaw@uw.edu.pl</a> and prof. Lukasz Drewniak <a href="mailto:l.drewniak2@uw.edu.pl">l.drewniak2@uw.edu.pl</a>.</p>
Application deadline:	10.10.2022

For more details about the position please visit (website/webpage address):	<a href="https://www.fnp.org.pl/oferta_pracy">https://www.fnp.org.pl/oferta_pracy</a> <a href="http://wbia.pollub.pl/pl/praca">http://wbia.pollub.pl/pl/praca</a> <a href="http://www.wggios.agh.edu.pl/pracownicy">http://www.wggios.agh.edu.pl/pracownicy</a> <a href="https://www.biol.uw.edu.pl/pl/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=148&amp;Itemid=317">https://www.biol.uw.edu.pl/pl/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=148&amp;Itemid=317</a>
Euraxess job/stipend offer (in case of PhD and postdoc positions):	<a href="https://euraxess.ec.europa.eu/jobs/834537">https://euraxess.ec.europa.eu/jobs/834537</a>
Appeal	<i>Possible appeals against the decision should be sent to prof. Wojciech Franus (project coordinator, <a href="mailto:w.franus@pollub.pl">w.franus@pollub.pl</a>) no later than 7 days after receiving the decision, i.e. the date of results announcement. In the protest an explicit justification have to be included.</i>
Consent to personal data processing	<p><i>To allow us to process your data, please include the following statement in your application:</i></p> <p><b><i>“I hereby consent to have my personal data processed by the University of Warsaw with its registered office at ul. Krakowskie Przedmieście 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.”</i></b></p>