

Institution: The Faculty of Mathematics, Physics and Technical Science of the Pedagogical University of Cracow, The Institute of Technology

Position type: postdoctoral position

Requirements:

PhD in physics, preferably in the field of nuclear magnetic resonance (NMR) relaxometry/magnetic resonance imaging (MRI):

- Having experience in experimental NMR/MRI;
- Knowledge of technical details of pulse sequences;
- With strong programming and data analysis skills (e.g. MATLAB);
- Willing to work in interdisciplinary team in close collaboration with researchers from Pharmaceutical Institute, Warszawa, Poland and Collegium Medicum, Jagiellonian University, Kraków, Poland;
- Doctoral degree (PhD) obtained not earlier than seven years before the year of employment in the project.

Responsibilities:

The post holder will be involved in the following tasks:

1. Preparation of imaging and relaxometry protocols and data analysis;
2. Design of dosage forms and manufacturing using 3D printing method;
3. Assessment of physicochemical properties of hydrated matrices:
 - Magnetic resonance imaging (MRI), Magnetic resonance (MR) relaxometry and micro x-ray tomography (micro-CT) in situ;
 - MRI, MR relaxometry and micro-CT data analysis;
 - Analysis of the results – drawing conclusions;
4. Participation in integrated data analysis - data modeling (imaging, relaxometry, dissolution and other results);
5. Participation in preparation of scientific articles (also as a leading author).

Type of National Science Centre call: OPUS – NZ

Deadline for submission: 28.10.2019 y.

Form of submission: The applications titled “post-doc” should be sent in electronic form (*pdf) to dr. hab. inż. Piotr Kulinowski: piotr.kulinowski@up.krakow.pl

Conditions of employment:

Full-time employment contract for 36 months in the Institute of Technology within the grant : “Personalized therapy – design and verification of the optimization and manufacturing of the modified release, orally taken drugs with the use of the 3D printing, computational intelligence techniques and mechanistics pharmacokinetic modeling” (the project realized in consortium - leader: dr hab. Sebastian Polak CMUJ).

Remuneration in line with the terms of employing at the post-doc position.

Planned date of start the project: November 2019 y.

Additional information:

The candidates should send the following documents (*pdf):

- application letter;
- scan of the PhD diploma;
- scientific CV with the list of publications, awards for research, scholarships, research internships – scientific experience reached outside the parent institution at home and abroad, workshops, trainings; participation in research projects, active participation in scientific conferences;
- two reference letters (PhD supervisor, scientific collaborators, etc.) - reference letter from PhD supervisor is obligatory;
- signed document "Information on processing of personal data of persons applying for employment at the Pedagogical University of Cracow" according to the form available on the Faculty of Mathematics, Physics and Technical Science of the Pedagogical University of Cracow website in the tab „Dla pracownika – konkursy o zatrudnienie” under the announcement of the competition.

In case any questions please contact the team leader in The Pedagogical University of Cracow: dr hab. inż. Piotr Kulinowski: piotr.kulinowski@up.krakow.pl