

ENG

Title of the project:

Effect of intestinal microbiota modulation induced by the chicory inulin-type β -fructans on metabolic parameters and biomarkers of the gut-skin axis in chronic skin inflammation

Competition: OPUS 23

PI: dr hab. eng. Urszula Krupa-Kozak

Project description

This interdisciplinary project designed for 4 year duration aimed to analyze the influence of nutritional intervention using a prebiotic vs. placebo on the spectrum of parameters starting from the characteristic of intestinal microbiota, through metabolic parameters (oxidative stress parameters, VOCs) and inflammatory mediators till the gut barrier functionality. This study is the RCT on patients with mild psoriasis as a model of chronic skin inflammation.

Proposed PhD thesis:

Effect of intestinal microbiota modulation induced by the chicory inulin-type β -fructans on intestinal barrier functionality in chronic skin inflammation

Description of the position:

PhD student will be involved in tasks related to the determination of the whole gut barrier permeability assessment including the functional assay (multi-sugars absorption test) and the concentration of biomarkers of intestinal barrier functionality, in addition, will be involved in all other research tasks, starting from the biological material collection (blood, urine, feces, skin), data collection, interpretation and statistical analysis, manuscripts preparation.

Requirements:

1. Higher (second degree) education in the field of biological sciences (biotechnology, biology) or related;
2. Knowledge of biochemistry, physiology, and human nutrition;
3. Good knowledge of English in speech and writing;
4. Fluent knowledge of Polish in writing (PhD student will be responsible for data collection and analysis of hand-written surveys of Polish patients);
5. Knowledge of modern analytical techniques (chromatographic methods; ELISA, mass spectrometry);
6. Ability to write scientific and/or popular science papers and present results;
7. Availability, motivation for scientific work, good organization of work;
8. Previous participation in the research projects and scientific manuscript writing will be an additional advantage;
9. **Highly appreciated scientific enthusiasm!**

Recruitment process:

- Applications will be assessed in accordance with the criteria set out in the regulations for awarding research scholarships in research projects financed by the National Science;
- Only on-line applications will be considered;
- Candidates evaluated with the highest score will be invited to an actual interview, which will take place face-to-face or online;
- During the interview, the candidate will be asked to deliver a 10-minute speech. presenting his/her Master thesis and research interests;
- Final results of the recruitment will be published on IAR&FR PAS webpage within 10 days after final decision.

Important information:

- **Application deadline: Jun 23rd, 2024, 23:59 (Eastern European Time)**
- **Application method:** application form
- **Interviews: 24.06-5.07.2024**
- **Location: Olsztyn, Poland**
- **Duration of the scholarship: 48 months**
- **Date of position opening: Octoberst, 2024**
- **Number of positions: 1**

Application form:

<https://pan.olsztyn.pl/interdisciplinary-doctoral-school-of-agricultural-sciences/2024-25-academic-year-recruitment/>