



INFORMATION ON THE COMPETITION

Krakow, 12th March, 2019

**DEAN
OF THE FACULTY OF PHYSICS, ASTRONOMY
AND APPLIED COMPUTER SCIENCE**

Address: 11, Łojasiewicza street
30-348 Kraków, Poland
Phone no./fax: (+48) 12 664 4890

**RECTOR
of the Jagiellonian University
announces competition for the post of
ADJUNCT RESEARCH PROFESSOR**

in the Institute of Physics
at the Faculty of Physics, Astronomy
and Applied Computer Science

**within the scope of National Science Center (NCN) project Sonata 13 no. 2017/26/D/NZ2/00454,
*Regulatory mechanisms for reproducible neural pattern specification in the developing spinal cord.***

For the post of adjunct professor may apply persons who fulfil requirements stated in Article 113, 116 (2) (3) of the Act of 20th July 2018 Law on higher education and science.

In the newly forming spinal cord, a striped pattern of distinct neural progenitor types is established. Despite the intrinsic stochasticity of signaling events and gene expression involved in pattern formation, the resulting spatial arrangement of neural progenitor types is remarkably precise and reproducible between individuals of the same species. How this reproducibility is achieved is a fundamental question in biology that is still poorly understood. The following project aims to identify regulatory mechanisms involving signaling, gene regulation and growth that result in precise pattern formation. The proposed models will be informed by experimental data obtained from collaborating labs.

Requirements:

- 1) PhD in physics, mathematics, computer science or similar.
- 2) Excellent academic track record.
- 3) Interest in the interdisciplinary aspect of the project.
- 4) Experience with numerical solvers (C++, Python, or Mathematica).
- 5) Proficiency in written and spoken English.
- 6) Experience in complex systems or biological networks will be an asset.

Research tasks:

- Proposing and analyzing models of developing spinal cord by using methods of theoretical physics.
- Comparing model predictions with experimental data.
- Participation in overall scientific activity of the research group.

Terms of employment: Full time employment for initial 24 months with possible extension

Starting date: Summer 2019

Salary: 10 000 PLN before-tax per month

Applications (scientific CV, list of publications, two recommendation letters) should be submitted to Dr Marcin Zagórski via e-mail: marcin.zagorski@uj.edu.pl with annotation "postdoc" by **17th May 2019**.

Competition starting date: 15th April 2019
Submission deadline: 17th May 2019
Competition results will be announced by: 1st June 2019

Jagiellonian University does not provide housing.

Statement forms can be downloaded on the website:

<http://www.dso.uj.edu.pl/druki-do-pobrania/dokumenty-dla-kandydatow-pracownikow>

On the basis of authorization
of the Rector of Jagiellonian University
Dean of the Faculty of Physics, Astronomy
And Applied Computer Science