Darya Stepanenko

Curriculum vitae

Okinawa, Japan
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Scientific Experience

May 2018 - now
Okinawa Institute of science and technology, Japan
Biological Complexity Unit

The project aims to model binding process between the transcription factors and DNA due to far-range interactions between transcription factor and base composition around binding DNA.

January 2018 – May 2018
Okinawa Institute of science and technology, Japan
Theory of quantum matter Unit

The project targeted to show that protein folding is not an equilibrium process through a simplified model by using numerical methods such as Monte Carlo simulations. web link to GitHub

September 2017 – December 2017
Okinawa Institute of science and technology, Japan
Bioinspired Soft Matter Unit

The project involved the studying of the mechanobiology of cancer cells responding to membrane-targeted molecular self-assembly. Particle-tracking microrheology is used as a technique. web link to GitHub

2016 – 2017
Shumakov Research Center of Transplantology and Artificial Organs, Moscow, Russia
Laboratory of Tissue Engineering

The project aimed to modify artificial extracellular matrix for tissue engineering purposes.

Spring 2016
Bogomoletz Institute of Physiology, Ukraine
School Biophysical Methods in Neuroscience

Summer 2015
White Sea, Russia
Field work Biological School

Publications

- Influence of the type and the concentration of the plastificator on the surface topology of a biodegradable polymer. Russian Journal of Transplantology and Artificial Organs. 2017;19(s):190 (In Russian) web link to GitHub

Education

2013 – 2017 **Applied Physics and Mathematics**
Bachelor of Science
Moscow Institute of Physics and Technology

2017 – now **PhD in Science**
Okinawa Institute of science and technology

Work Experience

September 2016 – May 2017
Educational company Uchi.ru, Russia
Developer of online mathematics courses for students

September 2015 – May 2017
Moscow Institute of Physics and Technology
Scientific journalist

Write popular science articles and press releases.

Popular science publications

- How do bionic prostheses work. Popular Mechanics. 2016; 2 (In Russian) web link
- How does the human body grow old? Gazeta.ru. 2016; May (In Russian) web link
- Simple things about the complex: will the machines feel? Theory and Practice. 2016; May (In Russian) web link

Communication skills

Russian	mother tongue
English	IELTS 7.0

Software skills

Good level	Python, LaTeX
Intermediate	R, experience in high performance computing cluster