

# Darya Stepanenko

## *Curriculum vitae*

### 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.

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.

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)

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### 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)
- How does the human body grow old? Gazeta.ru. 2016; May (In Russian)
- Simple things about the complex: will the machines feel? Theory and Practice. 2016; May (In Russian)

### COMMUNICATION SKILLS

RUSSIAN mother tongue

ENGLISH IELTS 7.0

### SOFTWARE SKILLS

GOOD LEVEL Python,  $\text{\LaTeX}$

INTERMEDIATE R, experience in high performance computing cluster