# Gorkovets Tatiana Konstantinovna

### **Biophysicist**

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Age	24 (29.10.1992)
Languages	Russian (native) English (upper-intermediate/advanced) French (A1)

#### Education

2014-now PHD student at the Biological Department, Lomonosov Moscow State University (MSU).

2009-2014 Undergraduate student at the Biological Department, Lomonosov Moscow State University (MSU).

## Research experience

Molecular Simulations Group, Biological Faculty, Lomonosov Moscow State University, Moscow, Russian Federation, group leader: prof. Konstatntin V. Shaitan.

Integrative Biology Group, Moscow State University, Faculty of Biology, Bioengineering Department. Supervisor: Alexey Shaytan, PHD, Lead Investigator.

- 2014-now PhD thesis project «Nucleosome interactions with H1 histiones and pioneer transcription factors»
- 2013-2014 Master thesis project "Modulation of voltage-gated sodium channels by short peptides". Supervisors: Dr. Alexey K. Shaytan, Dr. Konstantin V. Shaitan.
- 2012-2013 Bachelor thesis "Development of molecular dynamics simulation of potassium voltage-gated channel Kv1.2". Supervisors: Dr. Alexey K. Shaytan, Dr. Konstantin V. Shaitan.
- Semester report "Molecular modeling • 2011-2012 phospholipids bilayers". Supervisors: Dr. Alexey K. Shaytan, Dr. Konstantin V. Shaitan.

11.2012, 07.2013, 02.2014-04.2014 – internship at the TMS (theoretical simulations and modeling) group, the University of Lorrain, CNRS, France. Joint project "Voltage-dependent ion channels: from biophysics to therapeutics". Supervisor: Dr. Mounir Tarek.

### **KEY SKILLS**

- Research skills:
  - o Classic molecular dynamics (NAMD, GROMACS)
  - Homology modeling (MOLDELLER)
  - Molecular modeling (AutoDock, AutoDock Vina, MGLTools)
  - o Visualization (VMD, Chimera)
  - o Scripting (Bash, awk, python)
  - basic methods of molecular biology, biochemistry and biophysics.
- Computer skills:
  - Windows OS and Linux (advanced user)
  - o Supercomputers, MPI calculations
  - Analytical software (gnuplot, xmgrace)
  - Auxiliary software (putty, xming, winscp)
- Teaching experience
- Reports preparation and presentations skills
- Large amount of data analysis skills
- Multitasking
- Communication skills
- Responsibility

#### **PUBLICATIONS**

- 1. Armeev, G. A., T. K. Gorkovets, D. A. Efimova, K. V. Shaitan, and A. K. Shaytan. 2016. "Modeling of the Structure of protein–DNA Complexes Using the Data from FRET and Footprinting Experiments." Moscow University Biological Sciences Bulletin 71: 29–33. http://dx.doi.org/10.3103/S0096392516010016
- 2. Gorkovets T.K., Shaytan A.K. Creation of potassium voltage-gated channel Kv1.2 model for molecular dynamic simulation. in: "Computational and Theoretical Modeling of Biomolecular Interactions". Moscow-Izhevsk: Institute of Computer Science, 2013, pp. 25-26. ISBN 978-5-4344-0126-5