SIARHEI HLADYSHAU

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———————————— Education and Training ————————————

2012 – 2014 **M.S.in Biotechnology**

Moscow Institute of Physics and Technology (MIPT), Dolgoprudny, Russia
Department: Biological and Medical Physics
Division: Bioinformatics
Associated Research Institution: Vavilov Institute of General Genetics, Russian Academy of Science, Moscow
Laboratory: Systems Biology and Computational Genetics
Master's Thesis: Quantitative analysis of the representation of Lactobacillus and Bifidobacterium strains in metagenome based on genetic systems toxin-antitoxin type II
Adviser: Dr. Vsevolod Makeev

2008 – 2012 **B.S. in Applied Physics and Mathematics**

Moscow Institute of Physics and Technology (MIPT), Dolgoprudny, Russia
Department: Molecular and Biological Physics
Division: Physics of Living Systems
Associated Research Institution: Prokhorov General Physics Institute, Russian Academy of Sciences, Moscow
Laboratory: BioPhotonics
Bachelor Thesis: Quantitative detection of prostate-specific antigen by immunochromatographic analysis based on nonlinear flux reversals of magnetic nanomarkers
Adviser: Dr. Peter Nikitin

2008 – 2012 English Translator in Scientific Communication (MIPT)

2006 – 2008 Lyceum №1568, Moscow, Russia

1997 – 2006 Gymnasium №2, Vitebsk, Belarus

———————————— Awards ————————————

- First prize in competition of student research projects at 2nd Summer School in Bioinformatics, Study of demographic history of non-model organisms from SNP frequency data, St. Petersburg, Russia, July 2014.
- Travel Grant: Computational Genomics Workshop hosted by the Center for Cell Circuits at the Broad Institute.

_____ **Research Experience** _____

- Bioinformatics
- Computational biology
- Systems biology
- Mathematical biology

2015 – 2016 **Georgia Institute of Technology** and **Emory University**,
The Wallace H. Coulter Department of Biomedical Engineering Atlanta, GA, USA
Position: Research Technologist
Research Area: Study of phosphoinositides interactions with globular actin and proteins containing pleckstrin homology domain, regulation of cell motility with small GTPases, construction of integrative model of cell morphodynamics (stochastic lattice model).

2014 – 2015 **EMBL**, Heidelberg, Germany
Position: Trainee
Research Area: Study metabolic dependencies in cancer, modeling of genome scale metabolic networks with COBRA methods, IBM ILOG CPLEX, COBRApy, reconstruction of metabolic networks, work with single cell RNA-Seq data, analysis of multidimensional data.

2012 – 2014 **Vavilov Institute of General Genetics**, Russian Academy of Science, Moscow
Position: Trainee
Research Area: Study of toxin-antitoxin type II systems in Bifidobacterium and Lactobacillus strains, quantitative metagenomic analysis of human gut microbiome, genome annotation, NGS data processing, analysis of RNA-Seq data.

2011 – 2012 **Prokhorov General Physics Institute**, Russian Academy of Science, Moscow
Position: Trainee
Research Area: Development of test systems for quantitative detection of Prostate-specific antigen in human blood, immunochromatographic analysis based on detection of magnetic nanoparticles.

_____ **Teaching Experience** _____

2010 – 2012 Federal Extramural Physical-Technical School at MIPT, Dolgoprudny, Russia
Instructor of Mathematics
Teaching classes of extra education in mathematics, preparatory course for entering university.

_____ **Leadership** _____

- Organization of International Scientific School "Applied Mathematics and Physics, from Fundamental Research to Innovations" in 2011 and 2012,
- Member of Student Council while studying in MIPT.

Publications and Abstracts

- Lei W., Myers K., Rui Y., Hladyshau S., Tsygankov D., Zheng J.Q., Phosphoinositide-Mediated Spine Enrichment of Actin Monomers Regulates Synapse Development and Plasticity, *Journal of Cell Biology*
- Hladyshau S., Klimina K., Makeev V., Danilenko V., Qualitative analysis of Bifidobacterium and Lactobacillus strains representation in human gut metagenomes, *56th Scientific Conference at Moscow Institute of Physics and Technology*, Dolgoprudny, Russia, November 2013.
- Klimina K., Hladyshau S., Zakharevich N., Kasianov A., Poluektova E., Makeev V., Danilenko V., Type II toxin-antitoxin systems as a functional marker for identification of Bifidobacterium and Lactobacillus strains suitable for metagenomic studies, *5th International Human Microbiome Congress* (IHMC) 2015/Luxembourg, April 2015.

Presentations

- Hladyshau S, Klimina K, Makeev V., Danilenko V., Qualitative analysis of Bifidobacterium and Lactobacillus strains representation in human gut metagenomes, *56th Scientific Conference at Moscow Institute of Physics and Technology*, Dolgoprudny, Russia, November 2013.
- Hladyshau S, Klimina K, Makeev V., Danilenko V., Quantitative analysis of Bifidobacterium strains representation in human gut metagenomes based on toxin-antitoxin type II systems, *2nd Summer School in Bioinformatics* (prizewinner report), St. Petersburg, Russia, July 2014.

Skills

- Linux
- R
- Python
- MATLAB
- C++
- NGS data analysis

Languages

- English (C1)
- Belorussian (C1)
- Russian (native)
- German (B1)

Hobbies

- Ashihara katare,
- Piano, guitar,
- Ballroom dancing.