ANASTASIA LYULINA

✉ alyulina@stanford.edu

EDUCATION

2020 – present
Stanford University
Ph.D. Student in Ecology and Evolution
Stanford, CA, United States

2013 – 2017
Saint Petersburg Polytechnic University
B.Sc. in Physics
Saint Petersburg, Russia

2016
Technical University of Munich
Exchange Student
Munich, Germany

RESEARCH EXPERIENCE

Sep 2020 – present
Graduate Student at Stanford University
Biology Department • Supervisor: Dmitri A. Petrov
As a rotation student, I am working on inferring mean fitness from lineage tracking experiments in barcoded yeast populations.
Stanford, CA, United States

2017 – 2020
Research Assistant at the Institute of Science and Technology Austria
Evolutionary Genomics Group • Supervisor: Fyodor A. Kondrashov
My main project investigated the genetic variation in a nearly extinct bird species.
I used mathematical modelling, machine learning, and extensive data analysis.
Klosterneuburg, Austria

Feb – Jul 2019
Visiting Postgraduate Research Fellow at Harvard University
Department of Systems Biology • Supervisor: Johan Paulsson
I worked on improving fluorescent proteins by designing and screening mutant libraries.
I did cloning, mutagenesis, and microfluidics.
Cambridge, MA, United States

Jul – Aug 2017
Visiting Undergraduate Student at the University of Calgary
Centre for Molecular Simulation • Supervisor: D. Peter Tieleman
I studied how P-glycoprotein interacts with lipids and transports drug molecules across cell membrane with coarse-grained molecular dynamics simulations.
Calgary, AB, Canada

FELLOWSHIPS, GRANTS, AND AWARDS

2020 Gruber Science Fellowship at Yale University (declined)
2017 Zimin Foundation Summer Research Fellowship
2015 – 2017 Saint Petersburg Polytechnic University Academic Stipend
2015 Russian Academic Excellence Project Travel Grant

TEACHING EXPERIENCE

Aug 2018, Aug 2016, Aug 2015, Aug 2014
School of Molecular and Theoretical Biology
Supervised high school students working on research projects in biological physics, molecular evolution, and evolutionary genomics. In 2018, developed and taught a two-week-long course in data visualization (in English).
Adam Mickiewicz University, Poznań, Poland;
Centre for Genomic Regulation, Barcelona, Spain;
Institute of Protein Research, Pushchino, Russia

2016 – 2017 Private math and physics tutor to high school students
Worked one-on-one with students interested in out-of-school mathematics and physics.
Saint Petersburg, Russia

Jul – Aug 2015, Jul – Aug 2014, Jul – Aug 2013 Physics Olympiad Summer Training Program
Assisted with and later taught three-week-long courses in classical mechanics and calculus for high school students (in Russian).
Leningrad Region, Russia; Sochi, Russia

PROFESSIONAL SERVICE

2018, 2019 Reviewer for the *Journal of Theoretical Biology*

2015 – 2017 Board Member of the School of Molecular and Theoretical Biology Alumni Association
Participated in writing a constitution for the Alumni Association;
mentored younger students through the Alumni Association mentoring program;
organized talks and lectures for members of the Alumni Association located in Saint Petersburg and run a biweekly journal club.

ADDITIONAL COURSES

Jul – Aug 2018 Okinawa Institute of Science and Technology Computational Neuroscience Course
Okinawa, Japan

SELECTED PRESENTATIONS AND INVITED TALKS

2019 *Population Genetics of the Spoon-billed Sandpiper*
EvolVienna Meeting, Nov 26, Vienna, Austria

2019 *Population Genetics of the Spoon-billed Sandpiper*
Harvard Quantitative Biology Symposium, May 23, Cambridge, MA, USA

2018 *Predicting Effects of Amino Acid Substitutions*
The Graduate University for Advanced Studies, Jul 17, Hayama, Japan

2017 *P-gp Drug-Uptake: A Coarse-Grained Molecular Dynamics Study*
Centre for Molecular Simulation at the University of Calgary, Aug 16, Calgary, AB, Canada

PUBLICATIONS

2014 Gurtovenko A. A., Lyulina A. S. *Electroporation of asymmetric phospholipid membranes*. *Journal of Physical Chemistry B* 118 (33): 9909–9918, 2014. doi: 10.1021/jp5028355.