

ANASTASIA LYULINA

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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
- 2016 – 2017 Undergraduate Student at the Institute of Macromolecular Compounds
of the Russian Academy of Sciences • Supervisor: Andrey A. Gurtovenko
I performed atomic-scale molecular dynamics simulations of biological systems.
Saint Petersburg, Russia

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 Academic Mobility Grant

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.

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

ADDITIONAL COURSES

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

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 on 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 advanced 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.