

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
Munich, Germany

RESEARCH EXPERIENCE

- Sep 2020 – present Graduate Student at Stanford University
Applied Physics Department • Supervisor: Benjamin H. Good
As a rotation student, I am studying how drift helps large asexual populations cross fitness valleys.
Biology Department • Supervisor: Dmitri A. Petrov
As a rotation student, I am measuring fitness of adaptive yeast mutants in complex environments.
Stanford, CA, United States
- 2017 – 2020 Research Assistant at the Institute of Science and Technology
Evolutionary Genomics Group • Supervisor: Fyodor A. Kondrashov
My main project investigated the genetic variation in a nearly extinct bird species.
I used mathematical modeling 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 cationic peptides.
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 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, United States
- 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 Mathematics and physics tutor to high school students
Worked one-on-one with high school 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, vibrations and waves, and calculus for high school students (in Russian).
Leningrad Region, Russia;
Sochi, Russia

PROFESSIONAL SERVICE

- 2021 Mentor through the Stanford Undergraduate Research Association
- 2021 Member of the Stanford Biology Ph.D. Program Admissions Planning Committee
- 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 mentorship program;
organized talks and lectures for members of the Alumni Association located in Saint Petersburg and run a biweekly journal club.