

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

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

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 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.