

ANASTASIA S. LYULINA

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EDUCATION

Stanford University , <i>Stanford, CA, United States</i> PhD, Biology	2020 — <i>present</i>
Saint Petersburg Polytechnic University , <i>Saint Petersburg, Russia</i> BSc, Physics	2013 — 2017
Technical University of Munich , <i>Munich, Germany</i>	2016

PROFESSIONAL APPOINTMENTS

Stanford University , <i>Stanford, CA, United States</i> Graduate Research Assistant, Departments of Biology and Applied Physics Advisors: Benjamin Good and Dmitri Petrov	2021 — <i>present</i>
Institute of Science and Technology Austria , <i>Klosterneuburg, Austria</i> Research Assistant, Evolutionary Genomics Group Advisor: Fyodor Kondrashov	2017 — 2020
Harvard University , <i>Cambridge, MA, United States</i> Visiting Postgraduate Research Fellow, Systems Biology Department Advisor: Johan Paulsson	2019
University of Calgary , <i>Calgary, AB, Canada</i> Visiting Undergraduate Student, Centre for Molecular Simulation Advisor: Peter Tieleman	2017
Russian Academy of Sciences , <i>Saint Petersburg, Russia</i> Undergraduate Student, Institute of Macromolecular Compounds Advisor: Andrey Gurtovenko	2016 — 2017

HONORS AND AWARDS

Predoctoral Fellowship, Stanford Center for Computational, Evolutionary, and Human Genomics	2025 — 2026
Travel Award, Stanford Office of Graduate Education	2023, 2024, 2025
Mikitani Cancer Research Award, Stanford Cancer Institute (<i>with Saswati Karmakar, \$40,000</i>)	2024
Excellence in Teaching Award, Department of Biology, Stanford University	2024
Sarah Hotchkis Ketterer Graduate Fellowship, Stanford University	2021 — 2024
Gruber Science Fellowship, Yale University (<i>declined</i>)	2020
Summer Research Fellowship, Zimin Foundation	2017
Academic Stipend, Saint Petersburg Polytechnic University	2015 — 2017

PUBLICATIONS

* denotes equal contributions

3. Karageorgi M, **Lyulina AS**, Bitter MC, Lappo E, Greenblum S, Mouza ZK, Tran CT, Huynh AV, Oken H, Schmidt P*, Petrov DA*. Dominance reversal protects large-effect resistance polymorphism in temporally varying environments. *bioRxiv*: 2024.10.23.619953, 2024. *In press, Nature Ecology and Evolution*.
2. **Lyulina AS***, Liu Z*, Good BH. Linkage equilibrium between rare mutations. *Genetics* 228(3): iyae145, 2024. *Featured on the cover*.
1. Gurtovenko AA, **Lyulina AS**. Electroporation of asymmetric phospholipid membranes. *Journal of Physical Chemistry B* 118(33): 9909–9918, 2014. *Featured on the cover*.

Manuscripts in revision:

1. Konczal M, **Lyulina AS**, Zapata L, Camara F, Vlasova A, Saona R, Bello C, Fraïsse C, Gut M, Derelle R, Zheng C, Lin Y, Tutukina MN, Plyusheva M, Fontseré C, Tomkovich PS, Iakushev NI, Shepelev IA, Clements J, Jarrett N, Clark N, Arkhipov VY, Zöckler C, Digby R, Lappo EG, Dong L, Li S, Hu J, Liu Y, Ossowski S, Marques-Bonet T, Guigó-Serra R, Syroechkovskiy EE, Kondrashov FA. Population growth facilitated the retention of deleterious variance in the critically endangered spoon-billed sandpiper.

Manuscripts in preparation:

3. **Lyulina AS**, Good BH. Genetic diversity under nonequilibrium demography.
2. **Lyulina AS**, Severson AL, Juan J, Sebastian L, Tran V, Nie W, Lai I, Wall GD, Good BH, Winters IP, Winslow MM, Petrov DA, Rosen MJ. Early dynamics of cancer growth inferred from tracking millions of clonal tumors *in vivo*.
1. Karmakar S*, **Lyulina AS***, Xiong X, Tang YJ, Lopez S, Hughes NW, Attardi L, Petrov DA, Winslow MM. Integrated *in vivo* dissection of metastatic phenotypes and molecular programs in pancreatic ductal adenocarcinoma.

SELECTED TALKS AND SEMINARS

Evolution, <i>Athens, GA, United States</i>	2025
National Institute for Theory and Mathematics in Biology, <i>Chicago, IL, United States</i>	2025
Stochastic Physics in Biology Gordon Research Conference, <i>Ventura, CA, United States</i>	2025
Society for Molecular Biology and Evolution Annual Meeting, <i>Puerto Vallarta, Mexico</i>	2024
American Physical Society March Meeting, <i>Las Vegas, NV, United States</i>	2023
Bay Area Population Genomics Conference, <i>Davis, CA, United States</i>	2023
Harvard Quantitative Biology Symposium, <i>Cambridge, MA, United States</i>	2019
Graduate University for Advanced Studies, <i>Hayama, Japan</i>	2018

PROFESSIONAL TRAINING

Cold Spring Harbor Laboratory Yeast Genetics and Genomics Course <i>Cold Spring Harbor, NY, United States</i>	2022
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Okinawa Institute of Science and Technology Computational Neuroscience Course <i>Onna, Japan</i>	2018
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TEACHING AND MENTORSHIP

Stanford University, Biology 192/387: Seminar on Statistical Methods in Ecology and Evolution, <i>guest lecturer</i>	2025
Stanford University, Biology 85: Evolution, <i>teaching assistant</i>	2024
Stanford University, Biology 114: Building up Developing Scientists, <i>guest lecturer</i>	2023
Stanford University, Biology 113/244: Fundamentals of Molecular Evolution, <i>teaching assistant</i>	2022
School of Molecular and Theoretical Biology, <i>course instructor, research mentor</i>	2014 — 2018
Saint Petersburg Physics Olympiad Summer Training Program, <i>course instructor</i>	2013 — 2015

SERVICE AND OUTREACH

Stanford Biology PhD Preview Program, <i>volunteer</i>	2020 — <i>present</i>
Stanford Biology PhD Program Admissions Committee, <i>student representative</i>	2023 — 2024
Stanford Biology Department Mentorship Committee, <i>committee member</i>	2021 — 2022
School of Molecular and Theoretical Biology Alumni Association, <i>board member</i>	2015 — 2017

Referee for the *Journal of Theoretical Biology*, *PLOS Computational Biology*, *PLOS Genetics*, *Genetics* (with advisor), *PNAS* (with advisor).