

Kaan Ihsan Eskut

| kies222@uky.edu | Lexington, Kentucky |

Summary

Current PhD. candidate and graduate teaching and research assistant enrolled in University of Kentucky. Recognized for possessing a strong passion for Research in Bioinformatics and Computational Biology.

Good at working in collaboration with cross-functional teams in the development and execution of scientific projects, including experimental designs, applications, and workflows.

Experience

Graduate Research and Teaching Assistant | 01/2021 - Present | University of Kentucky | Lexington, Kentucky

- Dr. Jeramiah J. Smith's lab at Department of Biology.
- Working on several projects including "Genome evolution of lamprey species and phylogeny of Programmed Genome Rearrangement" and "Reconstructing genome assemblies and understanding methylation status in lamprey genome".
- Developing new methods to use in laboratory's experimental designs using computing resources and single cell and spatial transcriptomics technologies.

Business Development Associate | 03/2020 - 01/2021 | PeerBie Inc. | San Francisco, California

- Working with other associates to develop new ideas towards to create customer environment for a business management application.
- peerbie.com
- Remote

Intern Bioinformatician and Computational Biologist | 01/2020 - 03/2020 | University of Kentucky | Lexington, Kentucky

- Working on my Bachelor's final thesis, "Development of a computational pipeline to assess patterns of evolutionary conservation and divergence across the lamprey genome" in Dr. Smith's lab at Department of Biology.
- Internship.

Intern Data Scientist | 10/2019 - 01/2020 | CFA Society | Istanbul, Turkey

- Summarizing data from certain professional investors to help developing budgets for new investments on startup companies.
- Internship.

Intern Molecular Biologist and Bioinformatician | 01/2017 - 10/2019 | Cukurova University Balcali Hospital | Adana, Turkey

- Working on profiling tumor samples to develop personalized treatments for patients. Using molecular docking methods to find novel combinations of therapeutics. Interpretation variations from Whole Exome Sequencing and Whole Genome Sequencing for patients.
- Internship.

IT Staff | 09/2017 - 02/2019 | Istanbul University | Istanbul, Turkey

- Maintaining network systems between official workplaces within the university and helping to educate new staff for the IT department.
- Part-time.

Intern Molecular Biologist | 01/2018 - 03/2018 | Istanbul University | Istanbul, Turkey

- Assisting protein isolations and western blotting experiments in Proteomics Laboratory at Molecular Biology and Genetics Department.
- Internship.

Education

Bioinformatics and Computational Biology | University of Kentucky | Lexington, Kentucky

- GPA:4/4.
- Working on several projects including "Genome evolution of lamprey species and phylogeny of Programmed Genome Rearrangement" and "Characterization of sea lamprey early developmental molecular profiles to gain better understanding for programmed DNA loss of sea lamprey".
- Completed graduate level courses in developmental biology and regeneration, molecular biology, bioinformatics, and computational biology.
- Fourth year PhD. Candidate.
- Faculty advisor: Dr. Jeremiah Smith

Molecular Biology and Genetics | Istanbul University | 07/2020 | Istanbul, Turkey

- GPA: 3.36/4.
- Bachelor of Science Degree with honors(cum laude).
- Organization and management committees of Stem Cell, Genetics, Science Ethics and Bioinformatics and Statistics Students' Clubs.

Biology and Biotechnology | Maria Curie-Skłodowska University Lublin | 06/2019 | Lublin, Lublin Voivodeship

- GPA: 3.93/4.
- Erasmus+ exchange programme.
- Semester transcript of Bachelor of Science.

Publications

- Nataliya Timoshevskaya, **Kaan I. Eşkut**, et al. "An Improved Germline Genome Assembly for the Sea Lamprey *Petromyzon Marinus* Illuminates the Evolution of Germline-Specific Chromosomes." *Cell Reports*, vol. 42, no. 3, Mar. 2023, p. 112263. <https://doi.org/10.1016/j.celrep.2023.112263>.
- V.A. Timoshevskiy, N. Timoshevskaya, **K.I. Eşkut**, K. Rajandran, & J.J. Smith, Biparental inheritance of germline-specific chromosomes in the sea lamprey and their roles in oocytes, *Proc. Natl. Acad. Sci. U.S.A.* 122 (24) e2421883122, <https://doi.org/10.1073/pnas.2421883122> (2025).

Theses

- Thesis: Development of a computational pipeline to assess patterns of evolutionary conservation and divergence across the lamprey genome, Bachelor of Science degree final thesis project. Co-operation between University of Kentucky and Istanbul University.
 - Supervisor and Scientific Director: Dr. Jeremiah J. Smith.
 - Thesis Advisor: Dr. Andres Aravena.
 - 10.13140/RG.2.2.18462.15685

Presentations

- Society for Developmental Biology 82nd Annual Meeting Poster Presentation. "*Programmed DNA Loss and Genome Evolution in Cyclostomes*".
 - July 20, 2023 - July 23, 2023. Chicago, IL.
- 2022 Aquatic Models of Human Disease Conference (AQMHD) poster presentation. "Cyclostome Genomes: Changes in Form and Function Over Eons and Across Development" Kaan I Eşkut, Vladimir A Timoshevskiy, Nataliya Y Timoshevskaya, Cody Saraceno, Kasturi Rajandran, Jeremiah J Smith.
 - Oct 6 - Oct 10, 2022. Marine Biological Laboratory, Woods Hole, MA.
- 2025 Biology of Genomes. "Evolutionary insights from germline-specific chromosomes of lamprey and hagfish genomes" Kaan I Eşkut, Nataliya Timoshevskaya, Vladimir A Timoshevskiy, Jeremiah J Smith.
 - May 6 - May 10, 2025. Cold Spring Harbor Laboratory, Laurel Hollow, NY.

Meeting Abstracts

- Clinical assessment of HRD scoring in relation to PARPi response in terms of statistical guidance on reporting results for CDx tests evaluation. A Bisgin, I Boga, **KI Eşkut**, C Rencuzogullari, O Sonmezler, F

Kose, Journal of Clinical Oncology 41 (16_suppl), e17597-e17597.

Awards

- Childhood Cancer Association - Adana, Turkey - Travel Award 2020
- University of Kentucky Ribble Graduate Travel Award 2022 - Department of Biology.
- Scherr Special Opportunity Award 2022 - Department of Biology.
- Marine Biological Laboratory - SCARE Course - Scholarship Award Supported by National Institutes of Health (NIH) 2022
- University of Kentucky Ribble Graduate Travel Award 2023 - Department of Biology.
- University of Kentucky Ribble Graduate Travel Award 2025 - Department of Biology.
- University of Kentucky Kuehne award 2025 - Department of Biology.

Teaching

- BIO 520 - Bioinformatics.
 - TA assignment for Spring 2025 - University of Kentucky.
 - TA assignment for Spring 2024 - University of Kentucky.
 - TA assignment for Spring 2023 - Hands-on training in UNIX, BASH and various bioinformatics and computational biology applications - University of Kentucky.
- BIO 101 - Introduction to Biology.
 - TA assignment for Fall 2024 - University of Kentucky.
- BIO 445 - Biology of Sex.
 - TA assignment for Fall 2024 - University of Kentucky.
- BIO 303 - Introduction to Evolution.
 - TA assignment for Fall 2021 - 005 and 007 sections - University of Kentucky.

Trainings and courses

- Frontiers in Stem Cells & Regeneration - Marine Biological Laboratory 2022 - Oct 2nd to Oct 9th 2022 - Woods Hole, MA.

Certifications

- Occupational Health and Safety Certificate, Istanbul University, 2018.
- Responsible Conduct of Research - CITI program, 2024.

Volunteer Experience

- 37th annual Kentucky American Water District Science Fair - Judge - 2022
- 39th annual Kentucky American Water District Science Fair - Judge - 2024
- 2024 KY INBRE Annual Research Conference (ARC24) - Judge - 2024
- 2025 Central Kentucky Regional Science Fair - Judge - 2025.

Languages

- Turkish(Native)
- English(Full Professional)
- German(Basic)
- Polish(Basic)
- Spanish(Basic)