

LANGUAGE

Turkish (*Native*)

English (*Fluent*)

TOEFL iBT: 102/120 (Reading: Advanced, Listening: Advanced, Speaking: High-Intermediate, Writing: Advanced)

German (*Beginner*)

Danish (*Beginner*)

EDUCATION

- PhD** University of Copenhagen, Denmark
Faculty of Health and Medical Sciences 01.01.2022 - ongoing
Supervised by Thorfinn S. Korneliussen and Rasmus Nielsen
- BSc in Biology** Hacettepe University, Ankara, Turkey
Faculty of Science, Department of Biology Date of Graduation: 06.07.2020
GPA: 3.23, Certificate No: 20-321-032

RESEARCH EXPERIENCE

- GLOBE Institute, Section for GeoGenetics** University of Copenhagen, Denmark
Research assistant, Advisor: Thorfinn S. Korneliussen and Rasmus Nielsen 2020/10 - 2021/12
I contributed to the development and evaluation of the Lundbeck projects' bioinformatic pipeline. I contributed in a number of independent projects which resulted in 2 publications and contributed to 3 ongoing projects.
- Fumagalli Lab** Imperial College London, United Kingdom
Intern, Advisor: Matteo Fumagalli 2019/7 - 2019/9
I contributed to the HMMPloidy project by implementing various functions such as the genotype likelihood calculation for any given N-ploidy value, which resulted in a publication available as preprint.
- Biogeography Research Laboratory** Hacettepe University, Turkey
Intern, Advisor: Barış Özüdoğru 2019/2 - 2020/7
I developed a bioinformatic pipeline for the preprocessing, alignment, postprocessing and the phylogenomic analyses of RADSeq data, which I have used to carry out analyses which resulted in a manuscript in preparation.
- Laboratory of Comparative and Evolutionary Biology** Middle East Technical University, Turkey
Intern, Advisor: Mehmet Somel 2018/8 - 2019/6
I carried out analyses to evaluate the effect of the properties of probe sequences, such as GC content, on the performance of the 1240K SNP capture method.
- Laboratory of Evolutionary and Quantitative Genetics** Hacettepe University, Turkey
Intern, Advisor: Ergi Deniz Özsoy 2015/10 - 2019/2
I contributed to the statistical analyses of quantitative genetics projects based on Drosophila Genetic Reference Panel 2 data, which resulted in a poster presentation and acknowledgement in MSc and PhD theses.

SKILLS

Programming languages: C/C++, Rust, R, Python, Bash, Perl, Java, JavaScript

Markup languages: L^AT_EX, Markdown, HTML&CSS

Operating systems: GNU/Linux

Other tools and frameworks: Git, Conda, Snakemake, RShiny, Dash, Django

RELEVANT COURSES

Computational Statistics, University of Copenhagen, Department of Mathematical Sciences, 2022

Advanced Topics in Data Analysis, University of Copenhagen, 2021

Fundamentals in Computational Analysis of Large-Scale Datasets, University of Copenhagen, 2021

Stay-at-Home RevBayes Workshop, Topics: Tree inference from molecular data, evaluating MCMC performance, assessing model adequacy and macroevolutionary analyses, 2020

Fundamentals of Bioinformatics, Department of Computer Science, Hacettepe University, Lecturer: Tunca Doğan, 2019

Population Genetics, Graduate course, Department of Molecular Biology and Genetics, Middle East Technical University, Lecturer: Mehmet Somel, *2018*
Population Genetics Simulations with R, Middle East Technical University, *2018*
Introduction to Game Theory, Anadolu University, *2017*
Evolutionary Genomics Winter School, Hacettepe University, *2017*

PRESENTATIONS

"*A Genotype Likelihood Framework for the Analysis of Molecular Variance (AMOVA)*", Evolution and Population Genetics in Denmark (EPIC) Conference, *2022*
"*Evolutionary Biology and Preventing the Species Extinction*", 7th National Environment and Ecology Student Congress, *2016*
"*Biological Evolution*", Science and Future Magazine Science for Youth Seminar, *2018*
"*Evolutionary Perspectives on Ecological Problems*", Turkey Meets Evolution: Bilkent University, *2016*
"*Evolutionary Biology and Preventing the Species Extinction*", 7th National Environment and Ecology Student Congress, *2016*

POSTER PRESENTATIONS

Damla Aygün, **Isin Altinkaya**, Murat Yılmaz, Ergi Deniz Özsoy, Efe Sezgin. "Host genetics of microbiota diversity in *Drosophila melanogaster*". *Ecology and Evolutionary Biology Symposium*, Turkey, 2018

PUBLICATIONS

Alex Mas-Sandoval, Nathaniel S. Pope, Knud Nor Nielsen, **Isin Altinkaya**, Matteo Fumagalli, and Thorfinn Sand Korneliussen. Fast and accurate estimation of multidimensional site frequency spectra from low-coverage high-throughput sequencing data. *GigaScience*
Samuele Soraggi, Johanna Rhodes, **Isin Altinkaya**, Oliver Tarrant, François Balloux, Matthew C. Fisher, Matteo Fumagalli. HMMploidy: inference of ploidy levels from short-read sequencing data. *Peer Community Journal*, <https://doi.org/10.1101/2021.06.29.450340>

Preprints

Morten E. Allentoft [et al, including **Isin Altinkaya**.] (2022) Population Genomics of Stone Age Eurasia, bioRxiv, <https://doi.org/10.1101/2022.05.04.490594>

Manuscripts in preparation

Isin Altinkaya, Ismail Kudret Saglam, Barış Özüdoğru. Understanding the phylogenetic relationships within the *Noccaea* species complex from RADseq data using the multi-species coalescent.

Isin Altinkaya, Lei Zhao, Rasmus Nielsen, Thorfinn S. Korneliussen. A Genotype Likelihood Framework for Analysis of Molecular Variance (AMOVA) with Low Depth Sequencing Data.

Hugh McColl, José Victor Moreno Mayar, **Isin Altinkaya**, Thorfinn Sand Korneliussen, Accurate and precise library complexity estimations for ancient DNA libraries using patterned flowcell technology.

Fulya Eylem Yediay et al. [et al, including **Isin Altinkaya**.] Population genomics of Bronze Age Mediterranean.

SCIENTIFIC OUTREACH, PUBLIC ENGAGEMENT AND ACTIVITIES

12th Aykut Kence Evolution Conference, Organizer, *2018*
Science and Utopia Magazine, Popular science writer, Subject: Evolutionary biology, June 2017 - May 2018
Popular Science Magazine, Translator, February 2016 - May 2016
Tree of Evolution, Writer and editor; Subject: Evolutionary biology, November 2015 - present
Turkey Meets Evolution: Izmir, Organizer, *2012*
Tree of Evolution Bornova Anatolian High School Evolution Workshop, Organizer, *2012*

Popular Science Publications

Science and Utopia Magazine, Issue: 283, Examining the Thin Line Between Living and Non-Living Matter, with Dr. Martin Hanczyc
Science and Utopia Magazine, Issue: 278, Education and Perceptions: Evolution in Turkey
Atheist Magazine, Issue: 16, The Evolving Brain
Atheist Magazine, Issue: 14, Evolutionary Perspectives on LGBTI+
Atheist Magazine, Issue: 13, Understanding Evolution through the Human Body
Atheist Magazine, Issue: 12, Atheist Thinking under the Light of Evolution
Popular science articles at the Evrim Ağacı (Tree of Evolution) platform can be found at evrimagaci.org/isinaltinkaya.

TEACHING EXPERIENCE

Advanced Bioinformatics for Next-Generation Sequencing 2021, MSc course, University of Copenhagen, **Teaching Assistant**, *2021*
Introduction to Computational Biology and Bioinformatics Workshop, Hacettepe University, **Teaching Assistant**, *2020*
Biometry, 4th year elective course, Hacettepe University, **Teaching Assistant**, *2019*
Introductory Evolutionary Biology, Science and Utopia Magazine Evolution Courses, **Lecturer**, *2017*
Introduction to Evolution, Hacettepe University Evolution Workshops, **Lecturer**, *2016*

SCHOLARSHIPS & AWARDS

Erasmus+ Traineeship Grant, Imperial College London, *2019*

Hacktoberfest Award, for contributing to open source projects, *2018 and 2019*

Atheist Alliance International Foundation Scholarship for Students in Underdeveloped Countries, *2016 and 2017*

MEMBERSHIPS & AFFILIATIONS

Society for Molecular Biology and Evolution, *2023 - present*

Society for the Study of Evolution, *2021 - present*

Free Software Foundation, *2020 - present*

Ecology and Evolutionary Biology Society of Turkey, *2017 - present*