

KIM, DONGWOOK

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CURRICULUM VITAE

Education

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|-------------------|--|
| 03/2019 - 02/2025 | Ph.D. in Bioinformatics at Seoul National University |
| 03/2019 - 02/2022 | Completed Master's and Doctor's Integration Course in Bioinformatics at Seoul National University |
| 03/2015 - 02/2019 | B.S. in Biological Sciences, minor in Computer Sciences at Seoul National University, <i>cum laude</i> |

Research experience

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|-------------------|--|
| 05/2025 - | Postdoctoral fellow at the Comparative Genomics Group, University of Lausanne.
PI: Prof. Christophe Dessimoz & Dr. Natasha Glover |
| 03/2025 - 04/2025 | Postdoctoral fellow at the Steinegger Lab., Seoul National University.
PI: Prof. Martin Steinegger |
| 12/2021 - 02/2025 | Ph.D. candidate at the Steinegger Lab., Seoul National University.
Advisor: Prof. Martin Steinegger |
| 03/2019 - 11/2021 | Ph.D. candidate at the Laboratory of Evolutionary Bioinformatics, Seoul National University.
Advisor: Prof. Jongsik Chun |
| 06/2017 - 02/2019 | Intern at the Laboratory of Evolutionary Bioinformatics, Seoul National University |
| 06/2014 - 07/2014 | Visiting student at the Neurovascular Research Laboratory, Department of Radiology, Massachusetts General Hospital, Harvard Medical School |
| 03/2013 - 02/2014 | Visiting student at Hyeon Soo Kim Lab., Department of Anatomy, College of Medicine, Korea University |

TALKS, POSTERS, AND PUBLICATIONS

Talks

- 02/2025 The 21st KOGO Winter Symposium, Hongcheon, Korea, Introducing Unicore: A Scalable and Accurate Method for Structural Core Gene Phylogenetics
- 07/2023 ISMB/ECCB 2023, Lyon, France, UFCG: database of universal fungal core genes and pipeline for genome-wide phylogenetic analysis of fungi
- 11/2021 IMBG Young Scientist Symposium, Seoul, Korea, EzAAI - A High-Throughput Pipeline for Prokaryotic AAI Calculations

Posters

- 04/2025 RECOMB 2025, Seoul, Korea, Scalable and accurate structural core gene phylogeny with Unicore
- 02/2025 The 21st KOGO Winter Symposium, Hongcheon, Korea, Introducing Unicore: A Scalable and Accurate Method for Structural Core Gene Phylogenetics
- 07/2024 SMBE 2024, Puerto Vallarta, Mexico, Unicore Enables Ultra-fast and Accurate Phylogenetic Reconstruction with Structural Core Genes
- 07/2023 ISMB/ECCB 2023, Lyon, France, UFCG: database of universal fungal core genes and pipeline for genome-wide phylogenetic analysis of fungi
- 06/2020 ASM Microbe Online, Virtual, UUCGf: Whole-Genome Profiling Pipeline of Fungi with Fungal Core Gene Set for High-Resolution Phylogenetics

Peer-reviewed publications

- [1] **Kim D.**, Park S. and Steinegger M. (2025), Unicore enables scalable and accurate phylogenetic reconstruction with structural core genes, *Genome Biol. Evol.*, doi: [10.1093/gbe/evaf109](https://doi.org/10.1093/gbe/evaf109)
- [2] Park J., Lee G., Han Y., **Kim D.**, Heo K. et al. (2025), Structural basis of the catalytic and allosteric mechanism of bacterial acetyltransferase PatZ, *Proc. Natl. Acad. Sci. U. S. A.*, doi: [10.1073/pnas.2419096122](https://doi.org/10.1073/pnas.2419096122)
- [3] **Kim D.**, Gilchrist C.L.M., Chun J. and Steinegger M. (2023), UFCG: database of universal fungal core genes and pipeline for genome-wide phylogenetic analysis of fungi, *Nucleic Acids Res.*, doi: [10.1093/nar/gkac894](https://doi.org/10.1093/nar/gkac894)
- [4] Kim J., Na S., **Kim D.** and Chun J. (2022), UBCG2: Up-to-date bacterial core genes and pipeline for phylogenomic analysis, *J. Microbiol.*, doi: [10.1007/s12275-021-1231-4](https://doi.org/10.1007/s12275-021-1231-4)
- [5] **Kim D.**, Park S. and Chun J. (2021), Introducing EzAAI: a pipeline for high throughput calculations of prokaryotic average amino acid identity, *J. Microbiol.*, doi: [10.1007/s12275-021-1154-0](https://doi.org/10.1007/s12275-021-1154-0)

Public source codes

- Unicore <https://github.com/steineggerlab/unicore>
- UFCG <https://github.com/steineggerlab/ufcg>
- EzAAI <https://github.com/endixk/ezaai>

ACHIEVEMENTS AND QUALIFICATIONS

Awards, Fellowships and Achievements

- 2025 KOGO Young Scientist Award
2021 IMBG Young Scientist Award
2017 Samsung Convergence Software Course Scholarship, KRW 1,000,000
2015 National Science & Technology Scholarship from the National Research Foundation of Korea, KRW 24,033,000

Certificates

- 2019 Advanced english proficiency, Test of English Proficiency (Score 492/600, percentile rank 94.65%)

Technical Strengths

- Programming Java, Rust, Python, C/C++, Linux, Shell scripting
Databases SQL, MySQL

Languages

- Korean Native
English Fluent
French Beginner

TEACHING EXPERIENCES

- 2025/11 Guest lecturer, Reviews in Quantitative Biology, University of Lausanne
2021/09 Teaching assistant, Microbial Systematics, Seoul National University
2020/09 Teaching assistant, Microbial Systematics, Seoul National University