KIM, DONGWOOK

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CURRICULUM VITAE

Education

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, *cum laude*

Research experience

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

[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

[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

[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

[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

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