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KIWOOK LEE

Graduate Student

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➤ EDUCATION

- Mar 2015 – Aug 2021** **Bachelor of Science**, Department of Integrative Biotechnology
Sungkyunkwan University
* Military service, ROK (2018-2019)
- Sep 2021 – Present** **Integrated M.S. - Ph.D. Program**, Department of Integrative
Biotechnology
Sungkyunkwan University

➤ RESEARCH EXPERIENCE

- Jan 2017 – Dec 2017** **Undergraduate Research Volunteer**, Celtech
Sungkyunkwan University
- Nov 2020 – Aug 2021** **Undergraduate Research Volunteer**, RNA-based Precision Medicine
laboratory
Sungkyunkwan University
- Sep 2021 – Present** **Graduate Student**, RNA-based Precision Medicine laboratory
Sungkyunkwan University

➤ AWARDS & SCHOLARSHIPS

- Apr 2026** **AACR-Margaret Foti Foundation Scholar-in-Training Award**
American Association for Cancer Research (AACR)
- Sep 2024 – Aug 2026** **Research Grant Support Project for Ph.D. Students**
National Research Foundation of Korea (NRF)
- Jul 2023 – Present** **On-dream Future Industrial Talent Scholarship**,
Hyundai Motor Chung Mong-Koo Foundation
- Sep 2021 – Aug 2023** **Excellent graduate student scholarship**,
Sungkyunkwan University

➤ RESEARCH SKILLS

DRY SCIENCE

A. Bioinformatics

DEG analysis & Pathway analysis
Network analysis

B. Machine Learning

Transcriptome-based AI model
Multi-omics model development

C. Data Analysis

R & Python based data analysis
Visualization

WET SCIENCE

A. Cell Biology

Cell culture, Transfection,
Cell viability assays

B. Molecular Biology

RNA/DNA extraction, PCR & qPCR
Western blotting, Gel electrophoresis

C. Library Preparation

RNA-seq library preparation & QC
Exome capture

➤ SELECTED ACADEMIC PRESENTATIONS

[Oral presentation]

Ki Wook Lee, *Transcriptome-driven immune phenotyping AI framework predict ICI Response and long-term benefit in lung adenocarcinoma.* **KOGO winter symposium 2026**, Hongcheon, Republic of Korea - **Feb 2026**. *Presentation Awards

Ki Wook Lee, *Transcriptomic AI-based classification of immune phenotypes for predicting immunotherapy response in lung cancer.* **UKC 2025**, Atlanta, USA - **Aug 2025**.

Ki Wook Lee, *Application of a novel transcriptome-based AI platform in disease research.* **Mini Symposium, ICGSK**, Cheonan, Republic of Korea - **Jun 2025**.

[Poster presentation]

Ki Wook Lee, Hanen Lo, Balachandran Manavalan, Young-Jun Jeon. *Expression-based immune-phenotyping ML model predict ICI response and long-term clinic benefit in lung adenocarcinoma*, **AACR, 2026** *Scholar-in-Training Award

Ki Wook Lee, Hye Jung Min, Hyun Woo Park, Balachandran Manavalan, Young-Jun Jeon. *Optimization of preprocessing strategies for developing AI-based disease diagnosis model using whole transcriptomic data*, **AACR, 2025**

Hyun Woo Park*, **Ki Wook Lee***, Ji Won Lee, Sehhoon Park, Young-Jun Jeon. *Development and validation of a machine learning framework for immune phenotype classification and immunotherapy response prediction in lung cancer*, **AACR, 2025** *Equal contribution

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Ki Wook Lee, Hyun Woo Park, Ji Min Seo, Na Young Kwon, Balachandran Manavalan, Young-Jun Jeon. *Utilizing RNA-seq Based Conventional Machine Learning Algorithms to Classify Alzheimer's Disease with High Accuracy*, **ICGSK, 2023** *Best Poster Award

Ki-Wook Lee, Hyun-Woo Park, Yeon-Woo Kim, Jun-Sik Yun, Ji-Min Seo, Sang-Hee Park, Su-Yeon Kim, Ji-Won Lee, Hanen Lo, Illia Shaginyan, Balachandran Manavalan, and Young-Jun Jeon. *Optimization of NGS Normalization Method for Circulating Nucleic Acid Utilizing Cancer Study*, **KSMCB, 2023**

➤ PUBLICATIONS

- [1] **Lee, K. W.***, Pham, N. T.*, Min, H. J., Park, H. W., Lee, J. W., Lo, H. E., ... & Jeon, Y. J. (2025). DOGpred: A Novel Deep Learning Framework for Accurate Identification of Human O-linked Threonine Glycosylation Sites. **Journal of Molecular Biology**, 168977.
[Impact Factor – 4.7]
- [2] Moon, S*, **Lee, K. W.***, Park, M., Moon, J., Park, S. H., Kim, S., ... & Kweon, D. H. (2024). 3-Fucosyllactose-Mediated Modulation of Immune Response against Virus Infection. **International Journal of Antimicrobial Agents**, 107187.
[Impact Factor – 10.8]
- [3] Kim, S*, **Lee, K. W.***, Yoo, Y., Park, S. H., Lee, J. W., Jeon, S., ... & Jeon, Y. J. (2024). MiR-29 and MiR-140 regulate TRAIL-induced drug tolerance in lung cancer. **Animal Cells and Systems**, 28(1), 184-197.
[Impact Factor – 2.9]
- [4] Jeon, Y. J., Hasan, M. M., Park, H. W., **Lee, K. W.**, & Manavalan, B. (2022). TACOS: a novel approach for accurate prediction of cell-specific long noncoding RNAs subcellular localization. **Briefings in bioinformatics**, 23(4), bbac243.

*Equal contribution

➤ REFERENCES

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