

Jeongeun Lee

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EDUCATION

- 2014-2023 Seoul National University, Ph.D.
Major: Interdisciplinary Program for Bioengineering
Advisor: Jinwook Choi, M.D. Ph.D. & Murim Choi, Ph.D.
- 2012-2014 Seoul National University, M.S.
Major: Interdisciplinary Program for Bioengineering
Advisor: Jinwook Choi, M.D. Ph.D.
- 2006-2012 Hanyang University, B.A.
Major: Media Communications Engineering (Electrical
Engineering) with an honor of summa cum laude

RESEARCH EXPERIENCE

- 2023-current Postdoctoral Researcher
Biomedical Research Institute, Seoul National University Hospital
PI: Soo Heon Kwak

PUBLICATIONS

Lee, J., Lee, J., Jeon, S., Lee, J., Jang, I., Yang, J. O., ... & Choi, M. (2022). A database of 5305 healthy Korean individuals reveals genetic and clinical implications for an East Asian population. *Experimental & Molecular Medicine* **54(11)**, 1862-1871.
doi.org/10.1038/s12276-022-00871-4

Park, S., Jang, S. S., Lee, S., Kim, M., Sim, H., Jeon, H., Hong, S. E., Lee, J., **Lee, J.**, ... & Chae, J. H. (2022). Systematic analysis of inheritance pattern determination in genes that cause rare neurodevelopmental diseases. *Frontiers in Genetics* **13**, 990015.
doi.org/10.3389/fgene.2022.990015

- Hong, S. E., Kneissl, J., Cho, A., Kim, M. J., Park, S., **Lee, J.**, Woo, S., ... & Choi, M. (2022). Transcriptome-based variant calling and aberrant mRNA discovery enhance diagnostic efficiency for neuromuscular diseases. *Journal of Medical Genetics* **59(11)**, 1075-1081. doi.org/10.1136/jmedgenet-2021-108307
- Lee, Y., Park, S., Lee, J.S., Kim, S.Y., Cho, J., Yoo, Y., Lee, S., Yoo, T., Lee, M., Seo, J., **Lee, J.**, ... & Chae, J. (2020). Genomic profiling of 553 uncharacterized neurodevelopment patients reveals a high proportion of recessive pathogenic variant carriers in an outbred population. *Scientific Reports* **10(1)**, 1-11. doi.org/10.1038/s41598-020-58101-8
- Lee, J.**, Song, H. J., Yoon, E., Park, S. B., Park, S. H., Seo, J. W., ... & Choi, J. (2018). Automated extraction of Biomarker information from pathology reports. *BMC Medical Informatics and Decision Making* **18(1)**, 29. doi.org/10.1186/s12911-018-0609-7
- Cha, S., **Lee, J.**, Shin, J. Y., Kim, J. Y., Sim, S. H., Keam, B., ... & Kim, J. I. (2016). Clinical application of genomic profiling to find druggable targets for adolescent and young adult (AYA) cancer patients with metastasis. *BMC Cancer* **16(1)**, 170. doi.org/10.1186/s12885-016-2209-1
- Yun, J. M., Hwang, S. J., Anh, S. Y., Lee, S. M., Kang, P., **Lee, J.**, ... & Park, P. (2015). Development of biomarker positivity analysis system for cancer diagnosis based on clinical data. *Bio-medical Materials and Engineering* **26(s1)**, S2101-S2111. doi.org/10.3233/BME-151516
- Kim, J. Y., **Lee, J.**, Cha, S., Lee, S. H., & Kim, J. I. (2015). An explorative study using next generation sequencing of papillary renal cell carcinoma, type 2. *International Journal of Scientific and Research Publication* **5(1)** (ISSN: 2250-3153). <http://www.ijsrp.org/research-paper-0115.php?rp=P373590>
- Choi, S., **Lee, J.**, & Choi, J. (2013). SNUMedinfo at ImageCLEF 2013: Medical Retrieval Task. In *CLEF (Working Notes)*.

CONFERENCE PRESENTATIONS

TALKS

- Lee, J.**, Song, H. J., Yoon, E., Park, S. B., Park, S. H., Seo, J. W., ... & Choi, J. (2014). Development of Biomarker Knowledge Base from Pathology Reports Using Natural Language Processing Techniques. Talk presented at the *Korean Society of Medical Informatics conference*. Seoul, Republic of Korea
- Lee, J.**, Song, H. J., Yoon, E., Park, S. B., Park, S. H., Seo, J. W., ... & Choi, J. (2013). Biomarker Information Extraction from Non-Structured Immunohistochemistry Reports with Biomarker Thesaurus. Talk presented at the *Korean Society of Medical Informatics conference*. Seoul, Republic of Korea.

POSTERS

Lee, J., Lee, J., Jeon, S., Lee, J., Jang, I., Yang, J. O., ... & Choi, M. (2022). A database of 5305 healthy Korean individuals reveals genetic and clinical implications for an East Asian population. *Korean Society for Molecular and Cellular Biology*, Jeju, Republic of Korea

Lee, J., Seo, J., Kim, Y., Mook-Jung, I., Choi, M. (2018). Somatic LINE-1 retrotransposition in the Alzheimer brain genome. Poster presented at *FASEB 2018 Transcription, Chromatin and Epigenetics*, Florence, Italy.

Lee, J., Jazi, A.Y., Seong, M. Choi, J. (2015). Clinical Interpretation Pipeline of Targeted Next-Generation Sequencing Cardiovascular Panels. Poster presented at the *Translational Bioinformatics Conference*, Tokyo, Japan.

Cha, S., **Lee, J.**, Shin, J., Kim, J., Kim, J., Lee, S. (2015) Patient-specific genomic profiling for advanced cancers in young adults. Poster presented at the *American Association for Cancer Research Annual Meeting*, Philadelphia, U.S.

PROJECT EXPERIENCES

2021-current Population specific sc-eQTL analysis from Asian Immune Diversity Atlas

2021-current Genetic contribution on TCR/BCR clonality and naïve repertoire

2016-2021 Commercialization of SNUH genomic knowledge DB solution with which clinicians and bioinformaticians can manage patient's report and share novel insights on a case with colleagues

2014-2017 Development of online resource providing pathology information including biomarker levels, anatomical pathology features, and clinical pathology features

TEACHING EXPERIENCES

2022.07.19. 16th Asian Institute in Statistical Genetics and Genomics. Seoul, Korea
Title 1: "Analysis of single-cell RNA sequencing data"
Title 2: "Analysis of whole genome sequencing data using cloud computing"

2021.06.28. (online) 15th Asian Institute in Statistical Genetics and Genomics. Seoul, Korea
Title: "Analysis of whole genome sequencing data"

2020.07. (online) Korean Bioinformation Center, Korea
Title: "Analysis of structural variants for whole exome sequencing data"

- 2019.07.15. 14th Asian Institute in Statistical Genetics and Genomics. Seoul, Korea
Title: “Analysis of whole genome sequencing data”
- 2018.07.19. 13th Asian Institute in Statistical Genetics and Genomics. Seoul, Korea
Title: “Genomic data analysis using deep learning algorithm”
- 2014-2016 Seoul National University College of Medicine, Seoul, Korea
Title: “Data processing of medical data”, 1st semester

HONORS AND AWARDS

- 2006-2012 Hanyang University 2010 Full Scholarship.