Junho John Song

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EDUCATION

Hunter College of CUNY New York, NY
3rd Year
Major: Computer Science with Specialization in Bioinformatics (**GPA**: 3.825/4.0)

PUBLICATIONS

1. R. Liang, S. Taylor, N. Nahiyaan, J. Song, et al: GLUT5 (SLC2A5) enables fructose-mediated proliferation independent of ketohexokinase, DOI: 10.21203/rs.3.rs-42250/v1
2. Y. Chae, W. B. Kim, N. Simon, K. Rhee, **J. Song**, et al: Mass spectrometry-based serum proteomic signature as a potential biomarker for survival in patients with non-small cell lung cancer receiving immunotherapy. *Translational Lung Cancer Research.* 2020; 9(4):1015-1028.
3. W.B. Kim, P. Viveiros, J. Anker, N. Simon, K. Rhee, **J. Song**, et al: P2.11-06 Serum Proteomic Signature as a Potential Biomarker for Survival in Patients with NSCLC Receiving Immunotherapy. *Journal of Thoracic Oncology (JTO)*, 2019, 14(10): S793–S794.
4. L.C. Park, M. M. Sheikh, K. Rhee, W. Kim, A. Cho, **J. Song**, et al: Immunologic and clinical implications of CD73 expression in NSCLC. *Journal of Clinical Oncology (JCO)*. 2018, 36(15):12050-12050.

RESEARCH EXPERIENCE

Cantley Lab, Meyer Cancer Center, Weill Cornell Medicine June 2019 – Oct 2020
• Developing a predicting model for clinical conditions based on HLA types, phospho-antigen and its binding affinity to Kinases. Currently working on COVID-19 signaling project to find anti-viral therapy.
• Analyzing data, applying cutting-edge techniques, and incorporating new databases to improve the system.

Chae Lab, Robert H. Lurie Cancer Center at Northwestern University Jan. 2018 – May 2018
• Analyzed TMB (Tumor mutation burden) and immune landscape of POLD (polymerase D), POLE, and CD73 expression in non-small cell lung cancer (NSCLC) from The Cancer Genome Atlas (TCGA) database.
• Discussed patient pathology with the doctor, along with immunotherapy treatment options

Swartz Center for Computational Neuroscience, Cold Spring Harbor Lab. June 2016– August 2016
• Investigated neural circuits and computations underlying decision making by using cutting edge tools from systems neuroscience including electrophysiology and optogenetics.

Park Lab, Rare Disease Institute, Korea University Medical School Feb. 2016 – June 2016
• Analyzed genomic data about ACH (achondroplasia) and HCH (hypochondroplasia) to find another significant gene responsible for HCH.

Zhang Lab, Institute for Cognitive Science, Seoul National Univ. Sept. 2014 – Feb. 2016
• Received undergraduate research grant for research proposal on neuro-imaging techniques and brain connectivity
• Wrote and presented the research about the measuring effective connectivity of episodic memory retrieval

PRESENTATIONS and POSTERS

Phospho-Antigens Analysis of Different Liver Conditions. Poster presentation at Weill Cornell Medicine Summer Internship Program, New York, NY, Aug 2, 2019.

Philosophical and Scientific Argument on the Plausibility of Mind Uploading. Poster presentation at the Annual Research Symposium, Seoul National University, Seoul, South Korea, December 16, 2015.

Invited Speaker, Seoul Choice "Perspectives of Neuroscience" Public Lecture Sept. 2014 – Dec. 2014
• Selected by panel to deliver two-hour presentation on research activities at SNU, Institute of Cognitive Science

WORK EXPERIENCE

Premier Education Consulting Inc. and Phillips Education System Long Island, New York
Science Subject Tutor June 2018 – May 2019
• Teaching Physiology, College Biology and Organic Chemistry to college and high school students
• Prepared students to take AP Biology, Chemistry, Physics Exams

Republic of Korea Air Force South Korea
Squad Leader, Translator May 2011 – May 2013
• Responsible for receiving and enforcing orders from military leaders among squad, training new recruits on standards and procedures for smooth workflow and operations.
• Selected, translated and published five historical volumes and listed as primary translator.

LANGUAGES AND TECHNICAL SKILLS

Laboratory *Histology, Immunohistochemistry, Electrophysiology, Optogenetics (Virus Injection, Surgery)*
- Leveling, freezing, and slicing mouse brain tissue;
- Storing tissue in buffer and cryoprotectant;
- Mounting and cover-slipping tissue sections with non-fluorescent and fluorescent mounting media;
- Staining: Nissl staining, free-floating immunofluorescent staining;
- Building optical fiber or tetrode microdrive for extracellular recording during experiment;
- Running optogenetic experiments: virus injection, optical fiber implant (surgery), c-fos experiment
- Training rodents with proper adjustment for each stage of experiment;
- Microscope imaging and montaging;

Genetics *Molecular Cloning*
- Drosophila genetics and transposon mutagenesis screening;
- PCR; Viral plasmid insertion and vector cloning; Yeast cloning and colony selection;
- PTC sequencing and sequence analysis

Chemistry
- Column chromatography; Liquid-liquid extraction; Thin-layer chromatography; Recrystallization; Steam distillation;
- IR spectroscopy

Computer
- Familiar with Python, C programming, R, Prism and MATLAB from Bio Curriculum with Quantitative Labs