

Professional Summary

- Skilled in Single-Cell Multi-Omics and Spectral Flow Cytometry (30+ fluorochromes) Analysis to profile immune cell populations that impact disease progression.
- Proficient in multi-omics data integration from high-parameter measurements and use of machine learning models to predict critical regulators that contribute to immune variations.
- Experienced in wet and dry lab work for isolating gut microbes in the anaerobic chamber, cecal or fecal transplant (FMT) in germ-free mice, microbiome analysis, and studying immune mechanisms in FMT mice.

Research Interests

Systems Immunology, Immune Profiling, Gut-Heart Axis, Microbiome

Professional Experience

Assistant Professor. February 2021 to Present

Department of Biochemical Science and Technology (BST), National Taiwan University — Taipei, Taiwan

Staff Scientist. February 2020 to January 2021

National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH)
— Bethesda, MD, U.S.A.

Post Doc Fellow. September 2016 to January 2020

Department of Microbiology, NYU School of Medicine — New York, NY, U.S.A.

Ph.D. September 2010 to May 2016

Molecular Pathology and Immunology,

Rutgers Biomedical and Health Sciences-New Jersey Medical School (NJMS) — Newark, NJ, U.S.A.

Research Assistant. January 2009 to June 2010

National Institute of Cancer Research, National Health Research Institutes (NHRI) — Tainan, Taiwan

M.S. September 2005 to June 2007

Microbiology and Immunology, National Cheng Kung University — Tainan, Taiwan

Awards, Grant, and Scholarships

- **2023** AAI Early Career Faculty Travel Grant, The American Association of Immunologists (AAI).
- **2022** AAI Early Career Faculty Travel Grant, The American Association of Immunologists (AAI).
- **2021** Einstein Grant (五年期愛因斯坦培植計畫), The Ministry of Science and Technology (MOST), Taiwan.
- **2019** LIFT oversea talent, Leaders in Future Trends (LIFT) program, The Ministry of Science and Technology (MOST), Taiwan.
- **2019** AAI Trainee Abstract Award, The American Association of Immunologists (AAI).
- **2018** AAI Trainee Abstract Award, The American Association of Immunologists (AAI).
- **2016** Milstein Travel Award, International Cytokine & Interferon Society (ICIS).
- **2015** Milstein Travel Award, International Cytokine & Interferon Society (ICIS).
- **2010-2016** International Full Graduate Scholarship, Rutgers Biomedical and Health Sciences, Newark, NJ, U.S.A.

Selected Invited Talks

- **Cytek Biosciences UGM**, Taipei, Taiwan, October 2023.
- **10X Genomics UGM**, Taipei, Taiwan, July 2023.
- **Annual Meeting, AAI**, DC, U.S.A., May 2023.
- **Keystone Symposia, Myeloid Cells: Development, Diversity, and Distinct Biological Roles**, Utah, U.S.A., April 2023.
- **The 6th Annual Conference of Taiwan Microbiota Consortium**, Taipei, Taiwan, April 2023.
- **Annual Meeting of Chinese Society of Immunology Taiwan**, Taipei, Taiwan, October 2022.
- **The 14th Across the Taiwan Strait Symposium on Cell Biology**, Taipei, Taiwan, July 2022.
- **Institute of Molecular and Genomic Medicine, NHRI**, Zhunan, Taiwan, February 2022.
- **Immunology Research Center, NHRI**, Zhunan, Taiwan, April 2021.

Selected Publications

- YH Chen*, F Yeung*, KA Lacey, K Zalana, **JD Lin**[#], GCW Bee, C McCauley, RS Barre, SH Liang, CB Hansen, AE Downie, K Tio, JN Weiser, VJ Torres, RJ Bennett, P Loke, AL Graham, K Cadwell. Rewilding of laboratory mice enhances granulopoiesis and immunity through intestinal fungal colonization. *Science Immunology*, **8(84)**, June 2023. (Rank: Q1, 5-yr IF=22.0, Citations≥2), *Co-first Author, #4th Author.
- P Loke*, **JD Lin***. Redefining inflammatory macrophage phenotypes across stages and tissues by single-cell transcriptomics. *Science Immunology*, **7(70)**, April 2022. (Rank: Q1, 5-yr IF=22.0, Citations≥7), *Corresponding Author.
- **JD Lin***, P Loke*. Helminth infections and cardiovascular diseases: A role for the microbiota and Mø δ ? *Journal of Leukocyte Biology*, September, 2021. (Rank: Q2, 5-yr IF=5.4, Citations≥4), *Corresponding Author.
- C McElrath, V Espinosa, **JD Lin**[#], J Peng, R Sridhar, O Dutta, HC Tseng, S V Smirnov, H Risman, M J Sandoval, V Davra, YJ Chang, B P Pollack, R B Birge, M Galan, A Rivera, J E Durbin, S V Kotenko. Critical role of interferons in gastrointestinal injury repair. *Nature Communication*, **12(1)**, May, 2021. (Rank: Q1, 5-yr IF=17, Citations≥48), #3rd Author.
- J C Devlin*, J Axelrad*, A M Hine*, S Chang, S Sarkar, **JD Lin**[#], K V Ruggles, D Hudesman, K Cadwell, P Loke. Single-cell transcriptional survey of ileal-anal pouch immune cells from ulcerative colitis patients. *Gastroenterology*, **160(5)**, April, 2021. (Rank: Q1, 5-yr IF=25.8, Citations≥29), *Co-first Author. #4th Author.
- **JD Lin**, J C Devlin, F Yeung, C McCauley, J M. Leung, YH Chen, A Cronkite, C Hansen, C Drake-Dunn, K V. Ruggles, K Cadwell, A L Graham, P Loke. Rewilding Nod2 and Atg16l1 mutant mice uncover genetic and environmental contributions towards variation in microbial responses and immune cell composition. *Cell Host & Microbe*, **27(5)**, May, 2020. (Rank: Q1, 5-yr IF=25.7, Citations≥56)
- F Yeung, YH Chen, **JD Lin***, J M Leung, C McCauley, J C. Devlin, C Hansen, A Cronkite, Z Stephens, C Drake-Dunn, Y Fulmer, B Shopsin, K V. Ruggles, J L. Round, P Loke, A L Graham, K Cadwell. Altered immunity of laboratory mice in the natural environment is associated with fungal colonization. *Cell Host & Microbe*, **27(5)**, May, 2020. (Rank: Q1, 5-yr IF=25.7, Citations≥100); *Co-first Author.
- **JD Lin**, H Nishi, J Poles, X Niu, C Mccauley, K Rahman, E J. Brown, S T Yeung, N Vozhilla, A Weinstock, S Ramsey, E A Fisher and P Loke. Single-cell analysis of fate-mapped macrophages reveals heterogeneity, including stem-like properties, during atherosclerosis progression and regression. *JCI insight*, **4 (4)**, February, 2019. (Rank: Q1, 5-yr IF=8.5; Citations≥243) (Top 1% cited in "Clinical Medicine" field)

Memberships in Professional Societies

- **2021-present** Taiwan Society of Evolution and Computational Biology.
- **2021-present** Agricultural Chemical Society of Taiwan.
- **2018-present** American Association of Immunologists (AAI).
- **2013-present** International Cytokine & Interferon Society (ICIS).

Peer Review

- **Communications Biology**
- **BMC Genomics**
- **Scientific Reports**
- **Cell Reports**
- **iScience**
- **Microbiology Spectrum**