

Mr. David Seong

- MD Student, expected graduation Spring 2026
- Ph.D. Student in Immunology, admitted Autumn 2021
- MSTP Student

Publications

PUBLICATIONS

- **Benchmarking cell type and gene set annotation by large language models with AnnDictionary.** *Nature communications*
Crowley, G., Quake, S. R.
2025; 16 (1): 9511
- **Epigenomic profile of GBA1 in Parkinson's disease.** *Parkinsonism & related disorders*
Berson, E., Zaghroun, R., Santoro, M., Bukhari, S., Seong, D., Shu, C. H., Perna, A., James, T., Montine, K. S., Serrano, G. E., Beach, T. G., Keene, C. D., Chang, et al
2025; 140: 108066
- **Deep learning-based cell type profiles reveal signatures of Alzheimer's disease resilience and resistance.** *Brain : a journal of neurology*
Berson, E., Perna, A., Bukhari, S., Kim, Y., Xue, L., Seong, D., Mataraso, S., Ghanem, M., Chang, A. L., Montine, K. S., Keene, C. D., Kasowski, M., Aghaeepour, et al
2025
- **Benchmarking of pre-training strategies for electronic health record foundation models.** *JAMIA open*
Mataraso, S., D'Souza, S., Seong, D., Berson, E., Espinosa, C., Aghaeepour, N.
2025; 8 (4): ooaf090
- **CD301b+ monocyte-derived dendritic cells mediate resistance to radiotherapy.** *The Journal of experimental medicine*
Tadepalli, S., Clements, D. R., Raquer-McKay, H. M., Lüdtkke, A., Saravanan, S., Seong, D., Vitek, L., Richards, C. M., Carette, J. E., Mack, M., Gottfried-Blackmore, A., Graves, E. E., Idoyaga, et al
2025; 222 (6)
- **Author Correction: AI-guided precision parenteral nutrition for neonatal intensive care units.** *Nature medicine*
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- **AI-guided precision parenteral nutrition for neonatal intensive care units.** *Nature medicine*
Phongpreecha, T., Ghanem, M., Reiss, J. D., Oskotsky, T., Mataraso, S. J., De Francesco, D., Reincke, S. M., Espinosa, C., Chung, P., Ng, T., Costello, J. M., Sequoia, J. A., Razdan, et al
2025
- **PregMedNet: Multifaceted Maternal Medication Impacts on Neonatal Complications.** *medRxiv : the preprint server for health sciences*
Kim, Y., Marić, I., Kashiwagi, C. M., Han, L., Chung, P., Reiss, J. D., Butcher, L. D., Caoilli, K. J., Berson, E., Xue, L., Espinosa, C., James, T., Shome, et al
2025
- **A machine learning approach to leveraging electronic health records for enhanced omics analysis.** *Nature machine intelligence*
Mataraso, S. J., Espinosa, C. A., Seong, D., Reincke, S. M., Berson, E., Reiss, J. D., Kim, Y., Ghanem, M., Shu, C. H., James, T., Tan, Y., Shome, S., Stelzer, et al
2025; 7 (2): 293-306

- **Generating pregnant patient biological profiles by deconvoluting clinical records with electronic health record foundation models.** *Briefings in bioinformatics*
Seong, D., Mataraso, S., Espinosa, C., Berson, E., Reincke, S. M., Xue, L., Kashiwagi, C., Kim, Y., Shu, C. H., Chung, P., Ghanem, M., Xie, F., Wong, et al
2024; 25 (6)
- **Computational Approaches for Predicting Preterm Birth and Newborn Outcomes.** *Clinics in perinatology*
Seong, D., Espinosa, C., Aghaeepour, N.
2024; 51 (2): 461-473
- **Comprehensive overview of the anesthesiology research landscape: A machine Learning Analysis of 737 NIH-funded anesthesiology primary Investigator's publication trends.** *Heliyon*
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- **Transitional dendritic cells are distinct from conventional DC2 precursors and mediate proinflammatory antiviral responses.** *Nature immunology*
Sulczewski, F. B., Maqueda-Alfaro, R. A., Alcantara-Hernandez, M., Perez, O. A., Saravanan, S., Yun, T. J., Seong, D., Arroyo Hornero, R., Raquer-McKay, H. M., Esteva, E., Lanzar, Z. R., Leylek, R. A., Adams, et al
2023
- **Rapid recruitment and IFN-I-mediated activation of monocytes dictate focal radiotherapy efficacy.** *Science immunology*
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2023; 8 (84): eadd7446