



## Kalani Ratnasiri

Masters Student in Epidemiology and Clinical Research, admitted Autumn 2022

### Bio

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#### HONORS AND AWARDS

- NSF Graduate Research Fellowship (GRFP) Recipient, NSF (2019)

#### EDUCATION AND CERTIFICATIONS

- Doctor of Philosophy, Stanford University , IMMUN-PHD (2025)
- Bachelor of Arts, UC Berkeley , Molecular and Cell Biology: Immunology & Infectious Diseases, Gender and Women's Studies (2017)

### Professional

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#### WORK EXPERIENCE

- Research Associate, Infectious Disease Initiative - Chan Zuckerberg Biohub (June 5, 2017 - August 16, 2019)

### Publications

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#### PUBLICATIONS

- **scMetalIntegrator: a meta-analysis approach to paired single-cell differential expression analysis.** *bioRxiv : the preprint server for biology*  
Ratnasiri, K., Mach, S. N., Blish, C. A., Khatri, P.  
2025
- **Single-cell RNA-seq methods to interrogate virus-host interactions.** *Seminars in immunopathology*  
Ratnasiri, K., Wilk, A. J., Lee, M. J., Khatri, P., Blish, C. A.  
2022
- **SARS-CoV-2 infection drives an inflammatory response in human adipose tissue through infection of adipocytes and macrophages.** *Science translational medicine*  
Martínez-Colón, G. J., Ratnasiri, K., Chen, H., Jiang, S., Zanley, E., Rustagi, A., Verma, R., Chen, H., Andrews, J. R., Mertz, K. D., Tzankov, A., Azagury, D., Boyd, et al  
2022: eabm9151
- **Single mosquito metatranscriptomics identifies vectors, emerging pathogens and reservoirs in one assay.** *eLife*  
Batson, J., Dudas, G., Haas-Stapleton, E., Kistler, A. L., Li, L. M., Logan, P., Ratnasiri, K., Retallack, H.  
2021; 10
- **Dengue virus NS1 cytokine-independent vascular leak is dependent on endothelial glycocalyx components** *PLOS PATHOGENS*  
Glasner, D. R., Ratnasiri, K., Puerta-Guardo, H., Espinosa, D. A., Beatty, P., Harris, E.  
2017; 13 (11): e1006673
- **Potential pathogens and antimicrobial resistance genes in household environments: a study of soil floors and cow dung in rural Bangladesh.** *Applied and environmental microbiology*

- Nguyen, A. T., Ratnasiri, K., Barratt Heitmann, G., Tazin, S., Anderson, C., Hanif, S., Yeamin, A., Shoab, A. K., Shanta, I. S., Jahan, F., Hossain, M. S., Mahmud, Z. H., Jubair, et al  
2025: e0066925
- **Prior vaccination prevents overactivation of innate immune responses during COVID-19 breakthrough infection.** *Science translational medicine*  
Chan, L., Pinedo, K., Stabile, M. A., Hamlin, R. E., Pienkos, S. M., Ratnasiri, K., Yang, S., Blomkalns, A. L., Nadeau, K. C., Pulendran, B., O'Hara, R., Rogers, A. J., Holmes, et al  
2025; 17 (783): eadq1086
  - **Pathogens and Antimicrobial Resistance Genes in Household Environments: A Study of Soil Floors and Cow Dung in Rural Bangladesh.** *bioRxiv : the preprint server for biology*  
Nguyen, A. T., Ratnasiri, K., Heitmann, G. B., Tazin, S., Anderson, C., Hanif, S., Yeamin, A., Shoab, A. K., Shanta, I. S., Jahan, F., Hossain, S., Mahmud, Z. H., Jubair, et al  
2024
  - **Intermittent preventive treatment for malaria in pregnancy and infant growth: a mediation analysis of a randomised trial.** *EBioMedicine*  
Tong, Y., Ratnasiri, K., Hanif, S., Nguyen, A. T., Roh, M. E., Dorsey, G., Kakuru, A., Jagannathan, P., Benjamin-Chung, J.  
2024; 109: 105397
  - **Systems immunology of transcriptional responses to viral infection identifies conserved antiviral pathways across macaques and humans.** *Cell reports*  
Ratnasiri, K., Zheng, H., Toh, J., Yao, Z., Duran, V., Donato, M., Roederer, M., Kamath, M., Todd, J. M., Gagne, M., Foulds, K. E., Francica, J. R., Corbett, et al  
2024; 43 (2): 113706
  - **Upper airway gene expression shows a more robust adaptive immune response to SARS-CoV-2 in children** *NATURE COMMUNICATIONS*  
Mick, E., Tsitsiklis, A., Spottiswoode, N., Caldera, S., Serpa, P., Detweiler, A. M., Neff, N., Pisco, A., Li, L. M., Retallack, H., Ratnasiri, K., Williamson, K. M., Soesanto, et al  
2022; 13 (1): 3937
  - **Quantitative reverse transcription PCR assay to detect a genetic marker of pyrethroid resistance in Culex mosquitoes.** *PLoS one*  
Hager, K. M., Gaona, E., Kistler, A., Ratnasiri, K., Retallack, H., Barretto, M., Wheeler, S. S., Hoover, C. M., Haas-Stapleton, E. J.  
2022; 17 (8): e0252498
  - **Upper airway gene expression reveals suppressed immune responses to SARS-CoV-2 compared with other respiratory viruses** *NATURE COMMUNICATIONS*  
Mick, E., Kamm, J., Pisco, A., Ratnasiri, K., Babik, J. M., Castaneda, G., DeRisi, J. L., Detweiler, A. M., Hao, S. L., Kangelaris, K. N., Kumar, G., Li, L. M., Mann, et al  
2020; 11 (1): 5854
  - **Clinical features, diagnostics, and outcomes of patients presenting with acute respiratory illness: A retrospective cohort study of patients with and without COVID-19.** *EClinicalMedicine*  
Shah, S. J., Barish, P. N., Prasad, P. A., Kistler, A. n., Neff, N. n., Kamm, J. n., Li, L. M., Chiu, C. Y., Babik, J. M., Fang, M. C., Kangelaris, K. N., Langelier, C. n., Abe-Jones, et al  
2020: 100518
  - **Flavivirus NS1 Triggers Tissue-Specific Vascular Endothelial Dysfunction Reflecting Disease Tropism** *CELL REPORTS*  
Puerta-Guardo, H., Glasner, D. R., Espinosa, D. A., Biering, S. B., Patana, M., Ratnasiri, K., Wang, C., Beatty, P., Harris, E.  
2019; 26 (6): 1598+