Stanford



Gita Chu Abhiraman

Resident in Medicine

Bio

BIO

Gita Abhiraman is a resident physician in Internal Medicine at Stanford in the Translational Investigator Program. She is interested in immune signaling and immune dysregulation in malignancy. She completed her MD and PhD at Stanford in the Medical Scientist Training Program. Her PhD in Immunology was advised by Dr. Chris Garcia, in which she studied cytokine signaling, immune receptor structure, and protein engineering. She was the recipient of a Hertz Fellowship during her graduate training. She previously solved the structure of the interleukin-21 signaling receptor complex. She also developed immune switch molecules called "cytokine adaptors" with applications in cancer and autoimmune disease. She has contributed to work on several other cytokines, including IL-21, IL-12, and IL-10, for diverse therapeutic applications. Prior to her graduate training, Gita completed a bachelor's degree in Physics with a focus in Biophysics at Harvard University. She previously conducted research in the lab of Dr. Stephanie Dougan at Dana-Farber Cancer Institute.

HONORS AND AWARDS

- Hertz Fellow, The Fannie and John Hertz Foundation (2021)

PROFESSIONAL EDUCATION

- MD, Stanford University School of Medicine
- PhD, Stanford University School of Medicine , Immunology
- BA, Harvard University , Physics

Publications

PUBLICATIONS

- **Rewiring STAT signaling from the cell surface with Trikine immunotherapeutics.** *Science (New York, N.Y.)*
  Rodriguez, G. E., Zhao, Y., Nishiga, Y., Peprah, F., Shen, J., Abhiraman, G. C., Ogishi, M., Zhang, C., Saco, J., Waghray, D., Serasanambati, M., Torres, L., Simone, et al
  2026: eadx9954

- **Targeting immune cells in the aged brain reveals that engineered cytokine IL-10 enhances neurogenesis and improves cognition.** *Immunity*
  Navarro Negredo, P., You, J., Hauptschein, M., Schroer, A. B., Richard, D. J., Abhiraman, G. C., Tsai, A. P., Sun, E. D., Notarangelo, G., Ramirez-Matias, J., Zhou, O. Y., Buckley, M. T., Malacon, et al
  2026

- **Redirecting immune signaling with cytokine adaptors**
  Abhiraman, G., Garcia, K.
  OXFORD UNIV PRESS.2025

- **Design of a potent interleukin-21 mimic for cancer immunotherapy.** *Science immunology*
  Chun, J. H., Lim, B. S., Roy, S., Walsh, M. J., Abhiraman, G. C., Zhangxu, K., Atajanova, T., Revach, O. Y., Clark, E. C., Li, P., Palin, C. A., Khanna, A., Tower, et al
  2025; 10 (111): eadx1582
- **Spontaneous and experimental models of lymph node metastasis.** *Nature protocols*
  Breuer, C. B., Xiong, Z., Wang, A., Rodriguez, G. E., Abhiraman, G. C., Garcia, K. C., Reticker-Flynn, N. E.
  2025
- **Redirecting immune signaling with cytokine adaptors.** *Nature communications*
  Abhiraman, G. C., Householder, K. D., Rodriguez, G. E., Glassman, C. R., Saxton, R. A., Breuer, C. B., Wilson, S. C., Su, L., Yen, M., Hsu, C., Pillarisetty, V. G., Reticker-Flynn, N. E., Garcia, et al
  2025; 16 (1): 2432
- **Identification of the extracellular membrane protein ENPP3 as a major cGAMP hydrolase and innate immune checkpoint.** *Cell reports*
  Mardjuki, R., Wang, S., Carozza, J., Zirak, B., Subramanyam, V., Abhiraman, G., Lyu, X., Goodarzi, H., Li, L.
  2024: 114209
- **Overcoming lung cancer immunotherapy resistance by combining non-toxic variants of IL-12 and IL-2.** *JCI insight*
  Horton, B. L., D'Souza, A. D., Zagorulya, M., McCreery, C. V., Abhiraman, G. C., Picton, L. K., Sheen, A., Agarwal, Y., Momin, N., Wittrup, K. D., White, F. M., Garcia, K. C., Spranger, et al
  2023
- **A structural blueprint for interleukin-21 signal modulation.** *Cell reports*
  Abhiraman, G. C., Bruun, T. U., Caveney, N. A., Su, L. L., Saxton, R. A., Yin, Q., Tang, S., Davis, M. M., Jude, K. M., Garcia, K. C.
  2023; 42 (6): 112657
- **Structure-based decoupling of the pro- and anti-inflammatory functions of interleukin-10.** *Science (New York, N.Y.)*
  Saxton, R. A., Tsutsumi, N., Su, L. L., Abhiraman, G. C., Mohan, K., Henneberg, L. T., Aduri, N. G., Gati, C., Garcia, K. C.
  2021; 371 (6535)
- **Generation of Ca2+-independent sortase A mutants with enhanced activity for protein and cell surface labeling** *PLOS ONE*
  Jeong, H., Abhiraman, G. C., Story, C. M., Ingram, J. R., Dougan, S. K.
  2017; 12 (12): e0189068