Stanford

Maxine Umeh Garcia

Instructor, Neurosurgery

Bio

BIO

Maxine was born and raised in Sacramento, CA and transferred to UC Merced in 2007 after attending a community college for 2 years. She received her B.S. in Developmental Biology with a minor in Psychology in 2010. During the last year of her undergrad, Maxine was invited to do research in the lab of Dr. Michael Cleary, studying nervous system development. Because of this research experience, Maxine decided to stay at UC Merced to pursue her Master's in Quantitative and Systems Biology, graduating in 2013. Immediately after graduating, she started her Ph.D. at UC Davis, where her research centered on triple negative breast cancer – a type of breast cancer that has a high incidence in Black and African women.

After completing her PhD in Biochemistry, Molecular, Cell and Developmental Biology with an emphasis in Translational Research in 2019, Maxine became a postdoctoral fellow at Stanford University in the department of Neurosurgery. Dr. Umeh Garcia's research focuses on breast cancers that metastasize (or travel) to the brain. Maxine was recently promoted to an instructor position in her department after receiving a major career development award from the National Cancer Institute (K99/R00), which will fund the remainder of her postdoctoral research and provide 3 years of funding for Maxine to establish her own independent research lab. Using her background in bench research, informatics, and translational research, Dr. Umeh Garcia hopes to bring together biologists, data scientists, and clinicians to make important advances in breast cancer diagnosis and treatment. Additionally, as a women and underrepresented minority, Dr. Umeh Garcia is keenly interested in mentoring women and underrepresented students, and in developing novel strategic approaches to increasing diversity in biomedical sciences and academic research.

ACADEMIC APPOINTMENTS

- Instructor, Neurosurgery

PROFESSIONAL EDUCATION

- PhD, University of California, Davis , Biochemistry, Molecular, Cell, & Developmental Biology (Designated Emphasis in Translational Research) (2019)
- MS, University of California, Merced , Quantitative and Systems Biology (2013)
- BS, University of California, Merced , Developmental Biology, Psychology (minor) (2010)

Publications

PUBLICATIONS

- **SPATIALLY-RESOLVED TRANSCRIPTOME ANALYSIS OF BRAIN METASTATIC BREAST CANCER REVEAL KEY MEDIATORS OF BRAIN-TROPIC METASTATIC POTENTIAL**
  Umeh-Garcia, M., Godfrey, B., Perez, P., Varma, S., Ahmadian, S., Toland, A., Granucci, M., Averbukh, I., Tian, L., West, R., Angelo, M., Plevritis, S., Gephart, et al
  OXFORD UNIV PRESS INC.2023

- **Aberrant promoter methylation contributes to LRIG1 silencing in basal/triple-negative breast cancer.** *British journal of cancer*
  Umeh-Garcia, M., O'Geen, H., Simion, C., Gephart, M. H., Segal, D. J., Sweeney, C. A.
  2022
- **A Novel Brain-Permeant Chemotherapeutic Agent for the Treatment of Brain Metastasis in Triple-Negative Breast Cancer.** *Molecular cancer therapeutics*
  Deng, J., Chernikova, S. B., Wang, Y., Rodriguez, M. L., Andersen, S. J., Umeh-Garcia, M. C., Godfrey, B. O., Ahmadian, S. S., Fischer, W., Koller, K. J., Jandeleit, B., Ringold, G. M., Gephart, et al
  2021
- **Leptomeningeal Carcinomatosis: Molecular Landscape, Current Management, and Emerging Therapies.** *Neurosurgery clinics of North America*
  Bhambhvani, H. P., Rodrigues, A. J., Umeh-Garcia, M. C., Hayden Gephart, M.
  2020; 31 (4): 613–25
- **A Novel Bioengineered miR-127 Prodrug Suppresses the Growth and Metastatic Potential of Triple-Negative Breast Cancer Cells.** *Cancer research*
  Umeh-Garcia, M., Simion, C., Ho, P. Y., Batra, N., Berg, A. L., Carraway, K. L., Yu, A., Sweeney, C.
  2020; 80 (3): 418-429
- **A Syngeneic ErbB2 Mammary Cancer Model for Preclinical Immunotherapy Trials.** *Journal of mammary gland biology and neoplasia*
  Pénzváltó, Z., Chen, J. Q., Tepper, C. G., Davis, R. R., Silvestrini, M. T., Umeh-Garcia, M., Sweeney, C., Borowsky, A. D.
  2019; 24 (2): 149-162
- **Cancer prevention through miRNAs: miR-206 prevents the initiation and progression of hepatocellular carcinoma by attenuating c-MET signaling and cell-cycle progression via cyclin D1 and CDK6.** *Non-coding RNA investigation*
  Umeh-Garcia, M., Sweeney, C.
  2018; 2
- **Regulation of the T-box transcription factor Tbx3 by the tumour suppressor microRNA-206 in breast cancer.** *British journal of cancer*
  Amir, S., Simion, C., Umeh-Garcia, M., Krig, S., Moss, T., Carraway, K. L., Sweeney, C.
  2016; 114 (10): 1125-34
- **Dynamic regulation of mRNA decay during neural development** *NEURAL DEVELOPMENT*
  Burow, D. A., Umeh-Garcia, M. C., True, M. B., Bakhaj, C. D., Ardell, D. H., Cleary, M. D.
  2015; 10