Stanford

Chandrayee Ghosh

Basic Life Research Scientist, Surgery - General Surgery

Bio

BIO

Chandrayee Ghosh, PhD, is a Basic Life Research Scientist in the Department of Surgery at Stanford University School of Medicine and has been working in the field of Cancer and Immunology, with specific training and expertise in cancer therapeutics and translational science pertaining to drug repurposing and novel formulations of natural compounds. She has authored and coauthored 9 peer reviewed original articles in high impact journals. Her work has received media coverage both nationally and internationally. She presented her works in more than 18 international conferences and is recipient of research awards for her work. Her scientific contribution includes ground breaking findings such as identifying novel functions of FDA approved compounds and their combinations in targeting and assessing their mechanism of actions in one of the deadliest endocrine cancers anaplastic thyroid cancer, discovery of the interaction KDM3A with DCLK-1 and their role in pancreatic ductal adenocarcinoma tumorigenesis and stemness, identifying the cluster of master transcription factors or Super-Enhancers as novel targets for pancreatic cancer using novel formulation of natural compounds as anticancer agents.

CURRENT ROLE AT STANFORD

Basic Life Research Scientist

PERSONAL INTERESTS

Avid Reader!

Professional

PROFESSIONAL INTERESTS

My current primary research focus is on understanding the genetic/genomic changes involved tumor initiation and progression with the ultimate goal of identifying biomarkers of malignancy and therapeutic targets for endocrine cancers leading to novel drug development. I currently work on translational and clinical investigations with three main scientific goals: 1) to develop effective therapies for fatal, rare and neglected cancers, 2) to identify new methods, strategies and technologies for improving the diagnosis and treatment cancers, and 3) to develop methods for precision treatment tumors.
I have extensive research experience in cancer biology, cancer therapeutics in both basic and translational field and Immunology and infectious disease models. I have worked with novel compounds and also drug repurposing to identify new therapeutic regimes for pancreatic and endocrine cancers. I have substantial publication record which includes first author publication in reputed journals that includes Gastroenterology (IF-17) and Clinical Cancer Research (IF 10). I have completed my PhD in the field of Immunology and hence my long-term goal is to identify therapeutic propositions for aggressive diseases my implementing drug and immunotherapy.

Publications

PUBLICATIONS

- **Dual targeting of BRAFV600E and ferroptosis results in synergistic anticancer activity via iron overload and enhanced oxidative stress.** *Journal of experimental & clinical cancer research : CR*
  Hu, J., Ghosh, C., Khaket, T. P., Yang, Z., Tabdili, Y., Alamaw, E. D., Boufraqech, M., Dixon, S. J., Kebebew, E.
  2026

- **Corrigendum to "Combination nitazoxanide and auranofin treatment has synergistic anticancer activity in anaplastic thyroid cancer through enhanced activation of oxidative stress that leads to apoptosis" [Cancer Letters 633 (2025) 217990].** *Cancer letters*
  Ghosh, C., Khaket, T. P., Gunda, V., Yang, Z., Hu, J., Alamaw, E. D., Zhang, L., Zhang, Y. Q., Shen, M., Tabdili, Y., Boufraqech, M., Kassu, R., Kebebew, et al
  2025: 218159

- **Combination nitazoxanide and auranofin treatment has synergistic anticancer activity in anaplastic thyroid cancer through enhanced activation of oxidative stress that leads to apoptosis.** *Cancer letters*
  Ghosh, C., Khaket, T. P., Gunda, V., Yang, Z., Hu, J., Alamaw, E. D., Zhang, L., Zhang, Y. Q., Shen, M., Tabdili, Y., Boufraqech, M., Kassu, R., Kebebew, et al
  2025: 217990

- **Anaplastic thyroid cancer spheroids as preclinical models to test therapeutics.** *Journal of experimental & clinical cancer research : CR*
  Hu, J., Liu, K., Ghosh, C., Khaket, T. P., Shih, H., Kebebew, E.
  2024; 43 (1): 85

- **Importance of targeting various cell signaling pathways in solid cancers.** *International review of cell and molecular biology*
  Ghosh, C., Hu, J.
  2024; 385: 101-155

- **Advances in translational research of the rare cancer type adrenocortical carcinoma.** *Nature reviews. Cancer*
  Ghosh, C., Hu, J., Kebebew, E.
  2023

- **Combination BRAFV600E inhibition with the multitargeting tyrosine kinase inhibitor axitinib shows additive anticancer activity in BRAFV600E-mutant anaplastic thyroid cancer.** *Thyroid : official journal of the American Thyroid Association*
  Gunda, V., Ghosh, C., Hu, J., Zhang, L., Zhang, Y. Q., Shen, M., Kebebew, E.
  2023

- **Probability of positive genetic testing in patients diagnosed with pheochromocytoma and paraganglioma: Criteria beyond a family history.** *Surgery*
  Alobuia, W. M., Ammar, S., Tyagi, M., Ghosh, C., Gunda, V., Annes, J. P., Kebebew, E.
  2020

- **Diphenylbutylpiperidine Antipsychotic Drugs Inhibit Prolactin Receptor Signaling to Reduce Growth of Pancreatic Ductal Adenocarcinoma in Mice.** *Gastroenterology*
  Dandawate, P., Kaushik, G., Ghosh, C., Standing, D., Ali Sayed, A. A., Choudhury, S., Subramaniam, D., Manzardo, A., Banerjee, T., Santra, S., Ramamoorthy, P., Butler, M., Padhye, et al
  2020; 158 (5): 1433-1449.e27

- **A combinatorial strategy for targeting BRAF V600E mutant cancers with BRAF V600E inhibitor (PLX4720) and tyrosine kinase inhibitor (ponatinib).** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Kebebew, E., Ghosh, C., Kumar, S., Kushchayeva, Y., Gaskins, K., Boufraqech, M., Wei, D., Gara, S. K., Zhang, L., Zhang, Y., Shen, M., Mukherjee, S.
  2020

- **Adrenal Vein Sampling to Distinguish Between Unilateral and Bilateral Primary Hyperaldosteronism: To ACTH Stimulate or Not?** *Journal of clinical medicine*
  Sung, T. Y., Alobuia, W. M., Tyagi, M. V., Ghosh, C. n., Kebebew, E. n.
  2020; 9 (5)

- **The Histone Demethylase KDM3A, Increased in Human Pancreatic Tumors, Regulates Expression of DCLK1 and Promotes Tumorigenesis in Mice.** *Gastroenterology*
  Dandawate, P., Ghosh, C., Palaniyandi, K., Paul, S., Rawal, S., Pradhan, R., Sayed, A. A., Choudhury, S., Standing, D., Subramaniam, D., Padhye, S. B., Gunewardena, S., Thomas, et al
  2019; 157 (6): 1646-1659.e11

- **Super-enhancers: novel target for pancreatic ductal adenocarcinoma.** *Oncotarget*
  Ghosh, C., Paul, S., Dandawate, P., Gunewardena, S. S., Subramaniam, D., West, C., Anant, S., Dhar, A.
  2019; 10 (16): 1554-1571