

World Congress on ENDOCRINE AND DIABETES

August 05, 2021 | Webinar

Oncogenic regulation of atad2 in stomach cancer**Anasuya Roychowdhury***Indian Institute of Technology, Bhubaneswar, India*

ATAD2 is a promising oncogene. However, the mechanism of ATAD2-mediated tumorigenesis is elusive. Since genetic alterations, Helicobacter pylori infection, and hypoxia are the major contributing factors for stomach carcinogenesis; we study their role in ATAD2-mediated stomach malignancy. An enhanced expression of ATAD2 is observed in H. pylori-infected stomach cancer cells. Alteration analysis reveals that ATAD2 is a driver gene for stomach cancer, and 37 potential mutational sites (including the hot spot mutations at conserved ATPase domain) of ATAD2 have been identified, signifying that many of these mutations could be responsible for stomach carcinogenesis. Further, we identify ATAD2 as a hypoxia-responsive and HIF1 α -regulated gene and elucidate that upregulated expression of ATAD2 enhances proliferation and migration of hypoxic stomach cancer cells. The importance of such findings in terms of regulation of ATAD2 signaling in stomach cancer is elucidated.

Biography

Dr. Anasuya Roychowdhury, is an Assistant Professor of Chemistry and Biosciences discipline of School of Basic Sciences at Indian Institute of Technology (IIT) Bhubaneswar, India. She did her Ph.D. (Molecular Biophysics) at Prof. Wlodek Bujalowski's Lab in The University of Texas Medical Branch (UTMB) at Galveston, Texas, USA and postdoctoral research at Prof. Daniel Finley's Lab in Harvard Medical School, USA. Her current research focuses on "ATPases in physiology, medicine and diseases"

aoychowdhury@iitbbs.ac.in