

Tanaya Roychowdhury



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Gender:Female

Age:31 years

Date of Birth:13-01-1990

Nationality: Indian

Languages Known:

English, Hindi, Bengali.

Hobbies:Reading, Writing, Music,
Dance, swimming, Karate.

Social Services: Voluntary work for
NGO Civilian Welfare Foundation
(Teaching Kids in Pyarabagan Slum
areas)

Academic Profile

COURSE	INSTITUTION	BOARD	YEAR	Division
Graduate Program	CSIR- Indian Institute of Chemical Biology	University of Calcutta	2016	Senior Research Fellow
Guest Lecturer	VijaygarhJyotish Ray College	University of Calcutta	2013	Microbiology
M.Sc. (Microbiology)	Department of Microbiology	University of Calcutta	2010-2012	1 st Class
B.Sc. (Microbiology).	Department of Microbiology	University of Calcutta	2007-2010	1 st Class
Intermediate	Central Model School, Barrackpore, W.B.	West Bengal Council of Higher Secondary Education	2007	1 st Class
High School	Gokhale Memorial Girl's School	West Bengal Board of Secondary Education	2005	1 st Class

Area of Interest

- Cell Biology, Cellular homeostasis and Cell Signaling
- Cancer epigenetics
- G-quadruplex Biology
- Ribosomal Biogenesis
- Calcium signaling

Current Scientific engagement

- Junior Research Fellow and Senior Research Fellow at CSIR-IICB working on “Role and regulation of SMAR1 in cancer” (February 2016–till January 2021) under the supervision of Prof. Samit Chattopadhyay and Co-supervisor Dr. Subhrangsu Chatterjee.
- Senior Research Fellow under Dr. Arun Bandhyopadhyay, working on role of SMAR1 in oral cancer for a DBT sponsored project Systems Medicine Cluster (DBT-SyMeC).
- Thesis submitted on 14.11.21.
- Post-doctoral scholar at Memorial Sloan Kettering Cancer Centre since 11.05.2022

List of Publications

1. Nandi, S. K., **Roychowdhury, T.**, Chattopadhyay, S., Basu, S., Chatterjee, K., Choudhury, P., ... & Bhattacharya, R. (2022). Deregulation of the CD44-NANOG-MDR1 associated chemoresistance pathways of breast cancer stem cells potentiates the anti-cancer effect of Kaempferol in synergism with Verapamil. *Toxicology and Applied Pharmacology*, 115887.
2. Yelisetty Venkata Suseela, Pallabi Sengupta, **Tanaya Roychowdhury***, Suman Panda, Sangita Talukdar, Samit Chattopadhyay, Subhrangsu Chatterjee, and Thimmaiah Govindaraju. *ACS Bio & Med Chem Au* 0, 0, ppDOI: 10.1021/acsbiochemau.1c00039(*Joint First Author)
3. Roy, A., Chatterjee, O., Banerjee, N., **Roychowdhury, T.**, Dhar, G., Mukherjee, G., & Chatterjee, S. (2021). Curcumin arrests G-quadruplex in the nuclear hyper-sensitive III1 element of c-MYC oncogene leading to apoptosis in metastatic breast cancer cells. *Journal of Biomolecular Structure and Dynamics*, 1-17.
4. Ghatak, D., Datta, A., **Roychowdhury, T.**, Chattopadhyay, S., & Roychowdhury, S. (2021). MicroRNA-324-5p–CUEDC2 Axis Mediates Gain-of-Function Mutant p53-Driven Cancer Stemness. *Molecular Cancer Research*.
5. Ghosh, A., **Roychowdhury, T***, Nandi, R., Maiti, R., Ghosh, N. N., Molla, S. A., ... & Maiti, D. K. (2021). Inhibitory role of a smart nano-trifattyglyceride of Moringa oleifera root in epithelial ovarian cancer, through attenuation of FSHR-c-Myc axis. *Journal of Traditional and Complementary Medicine*. (*Joint First author)
6. **Roychowdhury, T.**, & Chattopadhyay, S. (2020). Chemical Decorations of “MARs” Residents in Orchestrating Eukaryotic Gene Regulation. *Frontiers in Cell and Developmental Biology*, 8, 1545 (Co-corresponding author)
7. Sengupta, P., Banerjee, N., **Roychowdhury, T.**, Dutta, A., Chattopadhyay, S. and Chatterjee, S., 2018. Site-specific amino acid substitution in dodecameric peptides determines the stability and unfolding of c-MYC quadruplex promoting apoptosis in cancer cells. *Nucleic acids research*, 46(19), pp.9932-9950.

8. Alam, A., Taye, N., Patel, S., Thube, M., Mullick, J., Shah, V.K., Pant, R., **Roychowdhury, T.**, Banerjee, N., Chatterjee, S. and Bhattacharya, R., 2019. SMAR1 favors immunosurveillance of cancer cells by modulating calnexin and MHC I expression. *Neoplasia*, 21(10), pp.945-962.
9. Jana, J., Mondal, S., Bhattacharjee, P., Sengupta, P., **Roychowdhury, T.**, Saha, P., Kundu, P. and Chatterjee, S., 2017. Chelerythrine down regulates expression of VEGFA, BCL2 and KRAS by arresting G-Quadruplex structures at their promoter regions. *Scientific reports*, 7, p.40706.

Manuscripts under communication:

- Phytosphingosine-induced specific nuclear and cytosolic Ca²⁺ signals lead to root cell death and compromised seedling growth in Arabidopsis (First Author, revision ongoing).
- Sequence driven interaction of amino acids in de-novo designed peptides determines c-Myc G-quadruplex unfolding inducing apoptosis in cancer cells (Co-author, communicated to ChemEurJ.).

Conferences, achievements, and awards

1. Best Essay Award from Indian National Science Academy, India, April 2022.
2. Best Innovative Idea Award from Microbiologist Society, India, March 2022.
3. 39th Annual Conference of Indian Association for Cancer Research, 2020, Theme: Leading the fight against cancer. February 5th to 7th, Best Essay Award
4. Nextgen Genomics, Biology, Bioinformatics and Technologies Conference, 30th Sept to 2nd Oct 2019. Selected for Gyan Scholarship Award.
5. International Conference Trends in Plant Sc. And Agrobiotechnology 2019, February 14th to 16th, Invited for interactive poster presentation.
6. Indian Association for Cancer Research, Theme: From Cancer Biology to Precision Oncology: Challenges and Considerations, 2018, 23rd to 25th February, Best Essay Award.
7. International Congress of Cell Biology 2018, The Dynamic cell: Molecules and Networks to Form and Function, Jan 27th to 31st. Poster Presentation, Awarded travel grant.
8. International Conference on Plant Developmental Biology & 3rd National Arabidopsis meeting, 2017, December 12-16. Invited for talk.
9. Qualified CSIR-UGC Net held on December June 2012, Dec2013 and was granted five-year fellowship for my doctoral studies.
10. Qualified GATE examination in Life Sciences category in 2012.

Contact details of referees:

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