

SAMRAT SAHA



PERSONAL DETAILS

Affiliation : 2019- Present (Assistant Professor, Dept. of Physiology, Harimohan Ghose College)
2017-2024 (Research Scholar, under the supervision of Prof. Sanit Dey, Dept. of Physiology, University of Calcutta)

Official address : Harimohan Ghose College, J/206 & 208A, Paharpur Road, Garden Reach, Kolkata-24.

Father's Name : Amarendra Nath Saha

Mother's Name : Mita Saha

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EDUCATION

Ph.D. : 2024- Department of Physiology, University of Calcutta
(Title of thesis: **Prediction Of Non-Alcoholic Fatty Liver Disease (NAFLD) Severity With Novel Paradigm Of Biomarkers: A Molecular Approach**)

M.Sc. : 2016- Department of Physiology, University of Calcutta.
(**Specialization in Immunology & Microbiology, 78.7%**)

B.Sc. : 2014- Department of Physiology, Serampore College,
University of Calcutta (**Honours in Physiology, 70.87%**)

12th Standard : 2011- ISC with Science (**79.5%**)

10th Standard : 2009- ICSE (**89.4%**)

PAPERS PUBLISHED

- Bhattacharya T, Gupta A, Gupta S, **Saha S**, Ghosh S, Shireen Z, Dey S, Sinha S. Benzofuran Iboga-Analogs Modulate Nociception and Inflammation in an Acute Mouse Pain Model. *Chembiochem*. 2024 Jun 14:e202400162 (Article in Press)
- Saha S**, Ray S, Mandal A, Das U, Bhattacharya T, Shireen Z, Sarkar S, Sharma RD, Ghosh S, Dey S. Enhanced inflammasome-mediated inflammation and impaired autophagy in peripheral blood mononuclear cells is associated with non-alcoholic fatty liver disease severity. *Life Sci*. 2023 Jul 8;329:121911.
- Ghosh TK, Chakrabarti SK, Ghosh S, **Saha S**, Dey S, Das SK. Synthesis, characterization, bioactivity and cytotoxicity assessment of nano ZrO₂ reinforced bioactive glass ceramics, *Ceramics International*, 2023. 49(20): p. 32694-32710.
- Banerjee A, Das D, Paul R, Roy S, Das U, **Saha S**, Dey S, Adhikary A, Mukherjee S, Maji BK. Mechanistic study of attenuation of monosodium glutamate mixed high lipid diet induced systemic damage in rats by *Coccinia grandis*. *Sci Rep*. 2020 Sep 22;10(1):15443.
- Sengupta A, Das U, Manna K, Biswas S, Datta S, Khan A, Bhattacharya T, **Saha S**, Mitra T, Mukherjee S, Sadhu AK, Paul S, Ghosh S, Sharma RD, Dey S. An association study of severity of intellectual disability with peripheral biomarkers of disabled children in a rehabilitation home, Kolkata, India. *Sci Rep*. 2019 Sep 20;9(1):13652.

PAPERS PRESENTED IN CONFERENCES

1. Poster presentation on —”**Dysfunctional autophagy & inflammasome-induced inflammation in peripheral blood mononuclear cells drive non-alcoholic fatty liver disease severity: A cross sectional study**” in **8th International Conference on Molecular Signaling and 4th Cestin Symposium: Signaling in Diseases Management and Diagnostics**, held from 16th-18th March, 2023 at CSIR-IICB, Kolkata, India.
2. Poster presentation on —”**Impaired autophagy and aggravated inflammasome-induced inflammation in peripheral blood mononuclear cells drive NAFLD severity: A cross sectional study**” in **Life at the Confluence of Biology and Chemistry**, held from 8th-11th December, 2022 at Biswa-Bangla Convention Centre, New Town, Kolkata, India.
3. Poster presentation on —”**Impaired autophagy and enhanced inflammasome activation in peripheral blood mononuclear cells contribute towards progression of Non-alcoholic fatty liver disease**” in **3rd International Conference on Fatty Liver**, held from 28th-30th April, 2022 at Vienna, Austria.
4. Poster presentation on —”**Defective autophagy is linked with inflammation in peripheral blood mononuclear cells along severity of non-alcoholic fatty liver disease (NAFLD) patients in a government hospital, in kolkata, India**” in **Women’s Health in India: Issues and Concerns & XXXIInd Annual Conference of Physiological Society of India**, from 14th-16th March, 2022, at Berhampore Girls College, Berhampore, West Bengal.
5. Poster presentation on —”**Quercetin and Rutin when combined with Palmitate sensitizes killing of Hepatocellular Carcinoma cells by activating ROS induced flipping of pAKT/Bcl-2 survival pathway**” in **17th Annual Meeting Of The Society For Free Radical Research-India & Conference On “Role And Management Of Oxidative Stress In Human Disease (Sfrr-India-2020)**, from 12th-15th February, 2020, at DAE Convention Centre, Anushaktinagar, Mumbai, India..

RESEARCH PROJECTS UNDERTAKEN

- Differential effects of flavonoids- rutin and quercetin on palmitate responses in hepatic cancer cells versus normal primary hepatocytes: implication for therapy.
- Prediction of NAFLD progression with a novel paradigm of biomarkers: a molecular approach.
- Effects of prior neutralization of tumour necrosis factor receptor- 1(TNF-R1) followed by treatment of *Clitoria Terneata* (Aparajita) on collagen-induced arthritis in mice.

AWARDS

- 2024- Recipient of the **Young Scientist Award (Prof. B.N.Koley Memorial Research Award)** by the Physiological Society of India.
- 2016- Qualified **UGC JRF (CSIR-UGC NET)** in Life Science.
- 2016- Qualified **NET-LS (CSIR-UGC NET) & GATE** in Life Science.
- 2016- Passed M.Sc in Human Physiology with **First-Class Third Rank** from the University of Calcutta, Dept. of Physiology.
- 2014- Passed B.Sc. in Physiology (Hons.) with **First-Class Third Rank** from the University of Calcutta, Serampore College, and Department of Physiology.

LABORATORY SKILLS

Animal handling, tissue culture techniques (including primary hepatocyte cell culture), and working with human blood samples. Biochemical assays and molecular biology techniques (Western blot, PCR, flow cytometry, Immunocytochemistry). Statistical analysis and handling of human, animal, and cell culture data by SPSS and Origin Software. Analysing flow cytometric data in FlowJo, immunocytochemistry photomicrographs in ImageJ and Fiji.