



## RIMA SAHA

FORMER WOMEN SCIENTIST-C,  
DEPT. OF SCIENCE,  
TECHNOLOGY (DST), TIFAC,  
GOVT. OF INDIA

## VITALS



Rangalal Bhavan, H.B Town,  
Road No-1, P.O-Sodepur, 24 PGS  
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West Bengal, India

**DOB:** 10<sup>th</sup> September, 1993.



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## EDUCATION

### *Matriculation (2004-2009)*

Rahara Bhabanath Institution For Girls, Kolkata,  
India, 85%, 1<sup>st</sup> division.

### *10+2 Board Examination (2009-2011)*

Rahara Bhabanath Institution For Girls, Kolkata,  
India, 79.10%, 1<sup>st</sup> division.

### *B.Sc. (Hons) in Chemistry (2011-2014)*

West Bengal State University, Kolkata, India,  
70.50%, 1<sup>st</sup> class

### *M.Sc. in Chemistry (2014-2016)*

Presidency University, Kolkata, India;  
78.30%, 1<sup>st</sup> class.

## ACADEMIC AWARDS

*Qualified Joint CSIR-UGC NET (National Eligibility Test) in Chemistry (2017).*

*Qualified GATE (Graduate Aptitude Test in Engineering) in Chemistry (2016, 2017, 2018).*

*Qualified Indian Patent Agent Examination (2022),  
Registered Indian Patent Agent No: IN/PA-4630.*

### *Ph.D. (2017-2022)*

*Department of Polymer Science & Technology,  
University of Calcutta, Kolkata, India.*

*Dissertation Title: "Amino Acid Based Raft Polymers  
and it's Biomedical Application".*

## EMPLOYMENT

### + Women Scientist (December 2021-December 2022)

Scheme on Intellectual Property Rights (WOS-C, KIRAN IPR) of TIFAC, Dept. of Science and Technology (DST) including 11 months internship (hands-on training) at Patent Information Centre, West Bengal State Council of Science and Technology, Department of Science and Technology and Biotechnology, GoWB, Kolkata.

### + Summer Research Fellow (May 2015-July 2015)

New Chemistry Unit, Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR), Jakkur, Bangalore-56006, under the supervision of Prof. Subi J. George (Supramolecular Chemistry Unit).

## SUMMARY OF SKILLS

- + Characterization of organic molecules using spectroscopic techniques: **1-H and C-13 NMR, Mass spectrometry, CD, FTIR, UV-VIS, Fluorescence Spectroscopy.**
- + Purification of organic molecules using chromatographic techniques: **Column chromatography, TLC, Paper chromatography, Gel Permeation Chromatography.**
- + Experience in handling instruments like **Spectrofluorometer, TGA, DSC, CD, UV/VIS Spectrophotometer, Gel Doc, Confocal Microscope.**
- + Used software such as **Origin, ChemDraw Ultra, MestreNova, Graphpad Prism, ImageJ, FV10-ASW 4.2 Viewer, Endnote.**
- + Familiar with filing **PCT/ National Phase** patent applications.
- + Performing prior art searches using various patent databases like **USPTO, INPASS, WIPO, EPO, Derwent Innovation.**

- ✚ Patent provisional and complete specification drafting, Preparing patentability report, FER response, landscape reports and other technical documents.
- ✚ Having working knowledge of computer.
- ✚ Language skills: English, Hindi, Bengali.

## ACADEMIC CONTRIBUTIONS

- ✚ Oral presentation in **International Conference on Nanotechnology: Ideas, Innovations & Initiatives; ICN:3I-2017**, at *IIT Roorkee* on December 6-8, 2017.
- ✚ Attended workshop and presented poster paper in **International Conference on BioMaterials, BioEngineering and BioTheranostic (BIOMET)**; held at *Vellore Institute of Technology (VIT)* on July 24-28, 2018 (Abstract published).
- ✚ Presented poster paper in **Symposium on polymer Science (SPS-2019)**; at *IISER Kolkata*, West Bengal, on July 5-6, 2019 (Abstract published).
- ✚ Oral presentation in **International Conference on Biomaterial-Based Therapeutic Engineering and Regenerative Medicine (BIOTERM)**, at *IIT Kanpur*, India on November 28-December 1, 2019.

## PEER-REVIEWED PUBLICATIONS

- ✚ **Saha R.**, Halder S., Pradhan S S., Jana K., Sarkar K\*. “Superior gene transfection efficiency in triple negative breast cancer by RAFT mediated amino acid based cationic di-block copolymers”. *J. Mater. Chem. B*, 2023. (*In Press*) (IF: 6.331, \*Corresponding author).

- ✚ Chakraborty D., Musibb D.<sup>1</sup>, **Saha R.**<sup>1</sup>, Das A., Razae M. K, Ramue V., Chongdara S., Sarkar K., Bhaumik A\*, “Highly stable tetradentate phosphonate-based green fluorescent Cu-MOF for anticancer therapy and antibacterial activity” *Materials Today Chemistry*. 24 (2022) 100882 (IF: 8.301, \*Corresponding author).
- ✚ Bej S., Das R., Mondal A., **Saha R.**, Sarkar K., Banerjee P\*, “Knoevenagel condensation triggered synthesis of dual-channel oxene based chemosensor: Discriminative spectrophotometric recognition of F<sup>-</sup>, CN<sup>-</sup> and HSO<sub>4</sub><sup>-</sup> with breast cancer cell imaging, real sample analysis and molecular keypad lock applications” *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 273 (2022) 120989 (IF: 4.098, \*Corresponding author).
- ✚ Sarkar P, Ghosh S, **Saha R**, Sarkar K\*, “RAFT polymerization mediated core–shell supramolecular assembly of PEGMA-co-stearic acid block co-polymer for efficient anticancer drug delivery” *RSC Advance*. 11 (2021) 16913-16923 (IF: 4.036, \*Corresponding author).
- ✚ **Saha R**, Bhayye S, Ghosh S, A Saha, Sarkar K\*, "Supramolecular assembly of amino acid based cationic polymer for efficient gene transfection efficiency in triple negative breast cancer" *ACS Appl. Bio Mater*. 2019, 2, 12, 5349–5365 (IF: 3.25, \*Corresponding author).

## BOOK CHAPTERS

- ✚ Ghosal K., Sarkar P., **Saha R.**, Ghosh S., Sarkar K. “Advances in Tissue Engineering and Regeneration”. In: Li B., Moriarty T., Webster T., Xing M. (eds) *Racing for the Surface*. Springer, Cham. 2020, 577-646.

- ✚ R. Patra, K. Ghosal, **R. Saha**, P. Sarkar, S. Chattopadhyay, K. Sarkar, “Advances in the Development of Biodegradable Polymeric Materials for Biomedical Applications With Respect to Their Synthesis Procedures, Degradation Properties, Toxicity, Stability and Application”, Reference Module in Materials Science and Materials Engineering, *Elsevier*, 2022.

## REFERENCES

Name	Designation	Contact Details
Dr. Kishor Sarkar	Assistant Professor	Department of Polymer Science & Technology University of Calcutta, 92, A.P.C. Road, Kolkata-700009. <a href="mailto:kspoly@caluniv.ac.in">kspoly@caluniv.ac.in</a> ; +91-33-2350-1397
Dr. (prof.) Gandhi Kumar Kar	Emeritus Professor	Department of Chemistry, Presidency University, 86/1 College Street, Kolkata- 700073, West Bengal, India; <a href="mailto:gandhikar41@gmail.com">gandhikar41@gmail.com</a>
Dr. Dhruva Prosad Chatterjee	Assistant Professor	Department of Chemistry, Presidency University, 86/1 College Street, Kolkata- 700073, West Bengal, India; <a href="mailto:dhruba.chem@presiuniv.ac.in">dhruba.chem@presiuniv.ac.in</a>
Dr. (Prof.) Subi Jacob George	Professor & Chair	NCU, JNCASR, Jakkur, Bangalore-560064, India <a href="mailto:george@jncasr.ac.in">george@jncasr.ac.in</a> ; + 91-(0)80- 22082964
Dr. Mahuya Hom Chaudhury	Scientist-C, Nodal Officer	West Bengal State Council of Science & Technology (WBSCST), Kolkata-700064, West Bengal, India. <a href="mailto:mhc123ster@gmail.com">mhc123ster@gmail.com</a>

## DECLARATION

I hereby declare that the information provided above is true to the best of my knowledge.

Date:

Place: Kolkata, India.

Rima Saha