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❖ RESEARCH INTEREST

- Chemistry
- Biomaterials
- Biotechnology
- Chemical Biology

❖ ACADEMIC BACKGROUND

- 2018-Present : Pursuing Ph.D., Department of Chemistry, Indian Institute of Technology Bhilai, Chhattisgarh, India (Advisor: Dr.Suchetan Pal)
- 2016–2018 : M.Sc. Aliah University, Kolkata, India, CGPA 7.46
- 2013-2016 : B.Sc. Aliah University, Kolkata, India, CGPA 7.22
- 2013 : H.S. W.B.C.H.S.E, West Bengal, India, 63.2%
- 2011 : M.P. W.B.B.S.E, West Bengal, India, 78.9%

❖ RESEARCH EXPERIENCES

- Ph.D. Current Research on “Multi stimuli-responsive bio nanomaterials and hydrogels for emerging applications” Under the Supervision of Dr.Suchetan Pal, Assistant professor, Department of Chemistry, Indian Institute of Technology Bhilai, India
- Instrumentation: Characterized samples by using different analytical instruments such as UV-Vis, FTIR, NMR, CD Spectrometer, fluorometer, Zetasizer - DLS Measurement, Optical and fluorescence microscopy, Rheometer, TGA, DSC, AFM, FESEM, Multimode Microplate Reader.
- M.Sc. Project on “Synthesis and Characterization of aspartic acid based Schiff base and its Cu(II) complex ” Under the Supervision of Dr. Md. Akhtarul Alam, Associate professor, Department of Chemistry, Aliah University, Kolkata

❖ TEACHING EXPERIENCES

➤ As a Teaching Assistant

- IC106: Physical Chemistry Lab, 2021-22 W Sem. (PG)
- IC251: Bioinformatics, 2021-22 M Sem. (UG)
- IC106: Chemistry Lab, 2019-20 W Sem. (UG)
- IC103: Materials Chemistry-I, 2018-19 M Sem. (UG)
- IC106: Chemistry Lab, 2018-19 M Sem. (UG)

❖ FELLOWSHIPS AND HONORS

- 2020: Senior Research Fellowship from Ministry of Human Resource Development (MHRD), Government of India
- 2018: Graduate Aptitude Test in Engineering (GATE) Fellowship by Ministry of Human Resource Development (MHRD), Government of India
- 2013: Secured 3rd position in AUAT Admission test in Chemistry, Aliah University, Kolkata

❖ POSITION OF RESPONSIBILITIES

- **2021-Present:** Student DPGC Representative, Chemistry at Indian Institute of Technology Bhilai, India
- **2021: Volunteer for the first convocation of Indian Institute of Technology Bhilai, India**
- **2021: Student Volunteer from Dept. of Chemistry, Indian Institute of Technology Technology Bhilai for the institute ARIIA (Atal Ranking of Institutions on Innovation Achievements) activity.**
- **2019: Volunteer for Smart India Hackathon SIH 2019 at Indian Institute of Technology Bhilai, India**
- **2016:** Class Representative of M.Sc in Chemistry at Aliah University Kolkata

❖ PUBLICATIONS

➤ Peer-reviewed journals

- Control of Glucose-induced Degradation and Cargo Release in Multi-Responsive Polymer Hydrogels. **Akbar Ali**, Sai P. Nagumantri, Tatini Rakshit, Suchetan Pal*. **Macromolecular Chemistry and Physics**. 2021, 222,2100121.

*Appeared on back cover page of August 2021 issue.

- DNA Nanostructures and DNA-Functionalized Nanoparticles for Cancer Theranostics. Fay Nicholson, **Akbar Ali**, Moritz Kircher, Suchetan Pal*. **Advanced Science**, 2020, 7, 2001669. (Review)

➤ Book Chapters

- Recent Developments of ROS Based Nanotherapeutic Modalities in Preclinical Cancer Treatment. Neha Suyog Potnis, **Akbar Ali**, Suchetan Pal*. **Handbook of Oxidative Stress in Cancer: Therapeutic Aspects**. Edited by Sajal Chakraborti. Springer Nature. ISBN: 978-981-16-1247-3.
- Chapter 8: In vivo imaging with SERS nanoprobe. Chrysafis Andreou, Yiota Gregoriou, **Akbar Ali**, Suchetan Pal. **SERS for Point-of-care and Clinical Applications**. ISBN-13: 978-0128205488.

❖ CONFERENCES, SEMINARS AND WEBINARS

➤ Conferences

- Oral Presentation entitled "Control of Glucose-Induced Degradation and Cargo Release in Multi-Responsive Polymer Hydrogels" in the International Conference on "Recent Advances in Material Science and Organic Synthesis" (**RAMSOS-2021**), from 20th-21st December, 2021, Organized by Department of Chemistry, National Institute of Technology Raipur, INDIA.
- Flash talk on: "Control of Glucose-induced Degradation and Cargo Release in Multi-Responsive Polymer Hydrogels" in the 7th International Conference on Advanced Nanomaterials and Nanotechnology (**ICANN2021**), organized by the Centre for Nanotechnology, IIT Guwahati, Assam, India, during 14-17 December 2021.
- Actively participated at the International Online Conference on Macromolecules Synthesis, Morphology, Processing, Structure, Properties and Applications (**ICM 2021**) from 10th-12th September 2021, Kottayam, Kerala, India
- Actively Participated in two days National Virtual Conference on Recent Advances in Analytical Techniques-2020 (**RAAT 2020**) organized by Dept. of Chemistry & ADDP Shri Varshney College Aligarh, Dr. B. R. Ambedkar University Agra, Uttar Pradesh, Centre of Bio-Medical Research Lucknow, Uttar Pradesh in collaboration with Dept. of Chemistry, R.H. Govt. P.G. College, Kashipur, Uttarakhand, Dept. of Chemistry, H.N.B. Govt. P.G. College, Khatima, Uttarakhand & USERC DST Dehradun, Uttarakhand Govt. on August 16-17, 2020.
- Participated in **103rd Indian Science Congress** to be hosted by University of Mysore, India from 3-7 January 2016.

➤ **Webinars**

- Participated in an "Online Faculty Development Program On **“Research Methodology: Tools & Techniques”** Organized by the IES University and IES COT, Bhopal, India from 20th January 2022 to 22nd January 2022.
- Participated in the two-day national webinar **“Current Challenges in Experimental Physical Chemistry”** Organized by Dept of Chemistry, IIT (ISM) Dhanbad in association with The Royal Society of Chemistry dated 31st July & 1 st August 2020
- Participated in a Scientific Writing Workshop by American Chemical Society (ACS) publication in collaboration with IIT Bhilai on 20th September.

➤ **Short term course**

- Participated in an AICTE sponsored Short Term Course on '**Advances in Biomaterials and Tissue Engineering**' organized by the Department of Biotechnology, IIT Madras from 25-30 January 2021.
- Participated in one week online Short Term Training Program (STTP) on **“Emerging Trends in Chemical Sciences and its Applications in Environment and Engineering”** organized by Department of Applied Chemistry, Jabalpur Engineering College, Jabalpur sponsored by TEQIP-III, on September 26 – 30, 2020.