

SUMANA BANERJEE |

Research Scholar IIT Kharagpur



		EDUCATION	
Year	Degree/Exam	Institute	CGPA/Marks
2019	M.TECH	IIT Kharagpur	8.53 / 10
2015	M.SC Biophysics	UNIVERSITY OF KALYANI	72.93%
2013	Physics Hons	UNIVERSITY OF CALCUTTA	51.50%
2009	HS	WBCHSE	74%
2007	Madhyamik	WBBSE	86.625%
COLIDSEWODK INFORMATION			

COURSEWORK INFORMATION

M.Tech Coursework:

Bioseparation Technology, Immunotechnology, Aspects of Biochemical engineering, Statistical Technique and Computer Programming, Secondary Metabolites in Plants and Microbes, Bioseparation and Bioprocess Technology Laboratory, Animal Cell Culture and Immunotechnology Laboratory. Recombinant DNA Technology, Biotechnology of Plant Metabolites, Protein Engineering, Bioprocess Plant and Equipment Design, Industrial Relations, Recombinant DNA Technology Laboratory, Plant Biotechnology Laboratory.

Ph.D Coursework: Computational chemistry, Methods in molecular simulations, Computational Structural Biology, English for Technical Writing.

PROJECTS

Homology Modeling of Retinol Dehydrogenase 16 of Homo sapiens

Masters project at Department Of Biochemistry and Biophysics, University Of Kalyani, under **Prof. Alpana Seal.** (2014-2015) I have attempted to build a homology model of RDH16 from *Homo sapiens*. After model generation, the best model was selected and subjected for refinement by energy minimization. Got 5 models of RDH16 from I-TASSER, all of them were minimized accordingly and structurally aligned with the best homology model.

Effects of insertion of a flexible linker between the helicase and the C-terminal domain of human RecQ1.

M.Tech thesis in the Department of Biotechnology, IIT Kharagpur, under the guidance of **Dr. Agneyo Ganguly**, Asst. Professor, Dept. of Biotechnology, IIT Kharagpur. (July, 2018-May 2019).

My objective is to over express and purify of the linker construct then assessing the unwinding activity of RecQ1 helicase with linker inserted on different substrates and Checking the affinity of RecQ1 with linker for different DNA substrates.

SKILLS AND EXPERTISE

TECHNIQUES ACQUAINTED WITH (till date):

Spectroscopy, Protein Work, Immunotechnology, Molecular Biology and Recombinant DNA Technology.

Computer skills- All fundamental courses of computer (DOS, UNIX, BASIC) and special knowledge of Fortran & Clanguages, Python.

General Skills: Excellent observational skills, Accuracy in following procedures and keeping records, Technical skills, Critical-thinking skills, Strong written and verbal communication skills, Analytical abilities, Problem-solving skills, Ability to manage time and prioritize tasks, Thorough attention to detail, Interpersonal skills with ability to work well with others, Effective leadership techniques, Strong motivator with an aptitude to inspire, Ability to make quick and effective decisions, Accuracy and clarity, Multitasking abilities, Great uptaking ability of new techniques, Good learner.

Teaching Assistant

Former Teaching Assistant in Bioseparation Technology Laboratory and Computational structural biology lab of Department of Biotechnology, IIT Kharagpur. Helping in conducting practical classes, checking of lab notebooks.

Winter School Workshop in Bioinformatics

Presented at the winter school in Bioinformatics held at The Biome Research Facility, Salt Lake, Kolkata. The school dealt with basic concepts of Bioinformatics, pattern matching, introduction to R programming and protein modelling.

AWARDS AND ACHIEVEMENTS

Secured AIR 224 in GATE 2017.

Pursuing Ph.D,

Broad Area: Computational Biophysics,

Computational Structural Biology Lab, Department of Biotechnology, IIT Kharagpur.

COMPETITION/CONFERENCE

IYMC(INTERNATIONAL YOUNG MICROBIOLOGISTS COMPETITION) 2015

TREATING OF METHICILLIN RESISTANT Staphylococcus aureus with the help of Cu- Nanoparticles.under **Prof. Tarakdas Basu**, DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS, UNIVERSITY OF KALYANI.

National Seminar on Quantum Mechanics

Participated in the UGC Sponsored National Seminar on Quantum Mechanics: Inception, Evolution and Future, 2011, organized by Department of Physics, Narasinha Dutt College, Howrah, in collaboration with Seth Anandram Jaipuria College, Kolkata.

EXTRA CURRICULAR ACTIVITIES

Dance, Drama, Singing, Recitation, Quizzing.

Participated in regional TV reality game show.

Cooking.