ANURAG BANERJEE

5TH YEAR BS-MS STUDENT

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ABOUT ME

I am a fifth-year **BS-MS research student** at IISER Kolkata in the field of **Biomedical Science**, I am an sincere student in academics and I have **good experience in basic techniques and methodologies** in Biomedical Research. I am **extremely motivated**, **dedicated** student having an excellent **problem solving ability** and the ability to **learn a skill quickly**.

MY TIMELINE

Summer December 2020 2021 2019 2019 **IISER Kolkata IISER Kolkata IIT Guwahati IISER Kolkata** Dr. Reddy's **IISER Kolkata** Online Summer Pharm**Biolabs**harma Winter Intern Summer Winter Intern Summer Intern Intern (Cancer Internship Professional (Neuroimmunology) (Neuroimmunology) (Cancer (Endocrinology) Immunology) Workshop Immunology)

RESEARCH INTERESTS

- Immunology
- Cellular Stress Biology
- Glycan Biochemistry
- Cytology
- Cancer Immunology
- Human Physiology
- Preciesion Medicine
- Stem Cell Biology

REFERENCES

DR. JAYASRI DAS SARMA

Professor, Department of Biological Sciences, IISER Kolkata, Adjunct Associate Professor, Department of Ophthalmology, University of Pennsylvania, USA

DR. ANIL MUKUND LIMAYE

Associate Professor, Department of Biosciences and Bio-engineering, IIT Guwahati

LANGUAGES KNOWN

- English
- Bengali
- Hindi
- Sanskrit

ACADEMIC PROFILE

2017 to Present:

Indian Institute of Science Education and Research (IISER), Kolkata CGPA: 8.84 (SGPA = 8.56, 8.97, 8.5, 8.71, 9.03,9.17, 9.17, 9.47 respectively) **Subjects learned**:

Year 1: Physics, Chemistry, Biology, Mathematics, Geology, Computer Science Year 2 (Pre Majors): Chemistry, Biology, Geology Year 3 and 4 (Majors): Biological Sciences

Courses Learned:

Physics: Classical Mechanics, Quantum Mechanics, Electrodynamics, Relativity **Chemistry:** Inorganic and Transition Metal Chemistry, Organic Chemistry, Solid State Chemistry, Quantum Chemistry, Stereochemistry, Spectroscopy

Biology: Evolution and Animal Behaviour, Mendelian Genetics and Molecular Genetics, Biochemistry, Biophysics, Immunology, Cytology, Microbiology, Cancer Biology, Stem Cells, Image Analysis, Biostatistics, Structural Biology, Cancer Biology, Mass Spectrometry, Neurobiology, Epigenetics, Developmental Biology.

2016:

Higher Secondary (Class XII): Ramakrishna Mission Vidyapith, Deoghar, Jharkhand

AISSCE (Board Exam) Score: 92.8%

Subjects: Physics, Chemistry, Biology, Mathematics, English

2014:

Secondary (Class X): Ramakrishna Mission Vidyapith, Deoghar, Jharkhand

AISSE (Board Exam) Score : 10 CGPA

Subjects: Mathematics, English, Science, Social Science, Sanskrit

RESEARCH EXPERIENCE:

2018 Winter - Present:

Indian Institute of Science Education and Research (IISER), Kolkata (From December 2018- Present)

Supervisor: Dr. Jayasri Das Sarma, Professor, Department of Biological Sciences, IISER Kolkata, Adjunct Associate Professor, Department of Ophthalmology, University of Pennsylvania, USA

Project Title: Cytological, Immunological and Pharmacological Studies on Syngeneic Murine Ovarian

Cancer and Cervical Cancer Model.

2019 Summer:

Indian Institute of Technology (IIT) Guwahati (From May 2019 - July 2019)

Supervisor: Dr. Anil Mukund Limaye, Associate Professor, Department of Biosciences and Bio-

engineering, IIT Guwahati.

Project Title: Study of the expression of G- Protein coupled Estrogen

Receptor (GPER-1) with respect to the Glucose in the media (using Biosensors) in

Colon Cancer Cell Line (SW-620) in a single nutrition pulse.

2018 Summer:

Indian Institute of Science Education and Research (IISER), Kolkata (From December 2018-January 2019)

Supervisor : Dr. Jayasri Das Sarma, Professor, Department of Biological Sciences, IISER Kolkata, Adjunct Associate Professor, Department of Ophthalmology, University of Pennsylvania , USA

Project Title: Determination of Doubling time of various Cervical Cancer Cell Lines like HeLa, SiHa

and C33a.

Research Skills Learned:

Basic Cell Culture Techniques (Cell Freezing and Revival, Maintaining and Subculturing, Treatment Studies and Fluorescence Associated Cell Sorting, Transfection); Isolation Techniques (RNA Isolation, DNA Isolation, Protein Isolation, Plasmid Isolation and Microglial Isolation using Percoll Gradient); Assays (ELISA, Haemagglutination Assay, Virial Assay, Biochemical Assays Protein Estimation Assays like Lowry's Assay and Bichinconinic Acid Assay); PCR (normal, real time and cDNA Synthesis); Gene Cloning and Gene Regulation Studies; Immunofluorescence Microscopy, Apotome and Confocal Microscopy, in vivo techniques and elementary techniques in Biosensors

Achievements

- **2020**: All India Subject Topper (Chemistry) in Mimamsa 2020, a nation-wide Quiz organized by IISER- Pune.
- 2016: Gold Medal Given for securing highest marks in English Communicative in AISSCE(Class XII) Examination, given by Ramakrishna Mission Vidyapith, Deoghar.
- 2016 & 2014 Prabhat Khabar Pratibha Samman Puraskar –Gold Medal, given to top 50 students in the State of Jharkhand, organised by Prabhat Khabar, a leading newspaper in the State.
- 2014 & 2016- Dainik Jagaran Gyan Ratna Puraskar - Gold Medal, given to top 100 students in the State of Jharkhand, organised by Dainik Jagaran, a leading newspaper in the State.
- 2014 & 2016 ERMC Meritorious Award
- 2014 & 2016- TOWC/E-RLY Award: Given for remarkable performance in CBSE- AISE Examination(Class X)

Software Skills

- Python Programming
- MS Office
- Various Plotting Softwares like Origin/Graphpad
- Imaging Softwares
- MATLAB
- R : The R Project for Statistical Computing
- Bioinformatic Tools
- Molecular Docking and viewing Softwares like Discovery Studio or Pymol
- Biosensor Programming Softwares

Workshops and Seminars

- December 2017: Vijyoshi National Science Camp organized by IISER-Kolkata and IISc Bangalore and KVPY
- November 2018: Lecture by Prof.
 Harold E. Varmus on The
 Transformation of Cancer Research at
 NIBMG, Kalyani
- January 2019: Workshop on "Prevalence of Antibiotic Resistance" conducted by Prof. Sharon Gusky, Organised in collaboration with American Society of Microbiology(ASM) and IUSSTF Indo-US Teaching Programme.
- May July 2021: Workshop on "Pharma - Biopharma: Product Life Cycle", conducted by Mr. Bedadyuti Chakraborty and organized by Dr. Reddy's Biolabs, aiming to train students for opportunities in Pharmaceutical Industries.

Personality and Skills

- Good communication written and oral skills
- Excellent conceptual and analytical skills
- Effective interpersonal skills
- Good knowledge of common experimental techniques
- Good presentation skills
- Ability to learn a skill quickly
- Communicative
- Punctual
- Creative
- Organized