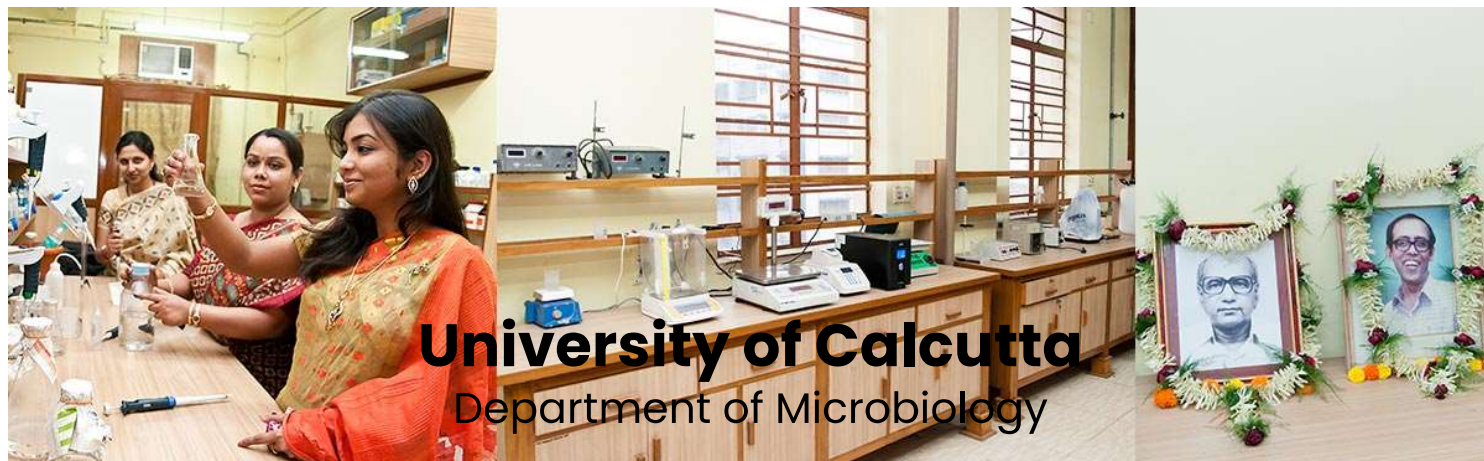




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History

Year of Establishment : 2000

History of the department : Microbes have become an indispensable tool for ensuring human health and welfare. In recognition of the immense impact of this discipline on modern society the University of Calcutta established Masters programme in Microbiology at the Ballygunge Science College Campus in the year 2000. Initially Microbiology was a division under the Department of Biochemistry and the course was taught by faculty members from all the allied departments. With financial support under UGC-Xth plan Microbiology augmented its infrastructural facilities and the programme was given independent status as a full-fledged department in 2005. With further support from the University and the DBT-IPLS programme, the Department further upgraded its facilities in 2012.

Special award/ recognition from UGC or related statutory body : Many students were placed within top 50 in CSIR-NET examination. Our student, Sourav Bhattacharya, secured 1st position in CSIR-NET examination, 2010 and awarded with prestigious SPM fellowship.

Academic Faculty Members

Name	Designation	Area of specialisation	Email
Alok Kumar Sil [Profile] (Microbio/Alok-Kumar-Sil.pdf)	Professor	Biochemistry, Cell Biology and Microbiology	alokksil7@gmail.com
Sagarmoy Ghosh [Profile] (Microbio/Sagarmoy-Ghosh.pdf)	Professor	Biochemistry, and Microbiology, RNA biology	sgmicrobio@caluniv.ac.in sagarmoy@gmail.com

Soumalee Basu [Profile] (Microbio/Soumalee-Basu.pdf)	Assistant Professor & HOD	Computational Biology and Biophysics	sbmicrobio@caluniv.ac.in
Sukhendu Mandal [Profile] (Microbio/Sukhendu-Mandal.pdf)	Assistant Professor	Microbiology	sukhendu1@hotmail.com smmicrobio@caluniv.ac.in

Courses :

Programme	Level of study	Eligibility	Intake capacity
M.Sc [Click here for Syllabus] (Microbio/microbio-MSc-syllabus.pdf)	Post graduate	B.Sc Hons in Microbiology	15
Ph.D	Doctoral	M.Sc in any branch of life science	

Research

Research Scholars :

Name	Research topic	Name of the supervisor	Date of registration
Aparajita Basu	Isolation And Characterization Of Efficient Electrode(s) For The Conversion Of Waste To Electricity Using Microbial Fuel Cell (MFC).	Prof. Alok Kumar Sil	03/05/2019 (Reg No: 03075/Ph.D. (Sc.) Proceed/2019
Prasenjit Das	Extraction, Purification And Characterization Of Novel Class Of Antibiotics From Newly Isolated Actinomycetes.	Dr. Sukhendu Mandal	13/09/2019 (Reg No: 06686/Ph.D. (Sc.) Proceed/2019
Aditya Shukla	Effect Of Cigarette Smoke On Vacuolar Physiology And Protein Sorting In <i>Saccharomyces cerevisiae</i> .	Prof. Alok Kumar Sil	13/09/2019 (Reg No: 06676/Ph.D. (Sc.) Proceed/2019
Md. Majharul Islam	Studies On Interaction Of Nodulating And Non-Nodulating Microbes With Peanut And Rice Plants.	Dr. Sukhendu Mandal	11/11/2020 (Reg No: 03849/Ph.D. (Sc.) Proceed/2020
Debasis Pradhan	Identification Of Cellular Factors Involved In Regulation Of Nuclear Export Of HBV RNAs.	Prof. Sagarmoy Ghosh	12/03/2021 (Reg No: 02255/Ph.D. (Sc.) Proceed/2021
Mitali Das	Studies On The Assembly Of Splicing Apparatus Hepatitis B Virus Pregenomic RNA.	Prof. Sagarmoy Ghosh	15/01/2021 (Reg No: 00348/Ph.D. (Sc.) Proceed/2021

Moumita Biswas	An Exploration Of The Role Of ApoE Interactors In Alzheimer's Disease.	Dr. Soumalee Basu	12/03/2022 (Reg No: 06493/Ph.D. (Sc.) Proceed/2022
Dipanwita Patra	Investigating The Mechanism Of Nod-Independent Nodulation In Bradyrhizobia-Legume Symbiosis.	Dr. Sukhendu Mandal	25/02/2022 (Reg No: 01069/Ph.D. (Sc.) Proceed/2022
Aindrila Kayal	Studies On Microbial Degradation Of The Emerging Pharmaceutical Pollutants.	Dr. Sukhendu Mandal	25/02/2022 (Reg No: 01067/Ph.D. (Sc.) Proceed/2022
Santosh Kumar Jana	Studies On Rice Seed-Vectored Endophytic Bacteria And Their Impact On The Host Plant.	Dr. Sukhendu Mandal	05/01/2023 (Reg No: 00260/Ph.D. (Sc.) Proceed/2023

Projects :

Project title	Funding agency	Principal investigator	Duration	Budget	
A Study of CS-induced atherosclerosis at the molecular and cellular level	DBT, Govt. of India	Dr. Alok Kumar Sil	October 27, 2014 to October 26, 2017	52,03,800	
Identification of the community structure of the polyurethane degrading microorganisms from east Kolkata solid waste dumping ground (DHAPA)	DST, Govt. of West Bengal	Dr. Alok Kumar Sil	January 2016 to December 2018	19,47,000	
Anti-amyloidogenic effects of some antioxidant phytochemicals present in common traditional plant	DST, Govt. of West Bengal	Dr. Soumalee Basu	3 yrs	Rs. 13.65 lakhs	
Identification of novel BACE - 1 inhibitors by simulating BACE1 - flavonoid interaction to identify new pharmacophore model followed by virtual screening in 3-D ligand database - a de novo drug design approach.	DST, Govt. of India,	Dr. Soumalee Basu	3yrs	Rs.23.90lakhs	
Selective exploration of diverse soil, symbiotic and marine actinomycetes on the basis of their unique bioactive compound production	DST	Dr. Sukhendu Mandal	3 yrs	23.4 lakhs	
Characterization of the alternate gene locus that regulates chemolithotrophic sulfur oxidation in a novel bacterium <i>Pseudaminobacter salicylatoxidans</i> KCT 001	UGC	Dr. Sukhendu Mandal	3 yrs	UGC	6 lakhs
Structural and biochemical analysis of Mycobacterial ECF sigma and evaluation of its role on gene expression	WB-DST	Dr. Sukhendu Mandal	3 yrs	WB-DST	15 lakhs

Collaborations :

We work in collaboration with different national level research institutions

Thrust areas in teaching and research of the academic department / centre :

Teaching emphasis

Microbiology
Biochemistry
Molecular Biology
Cell biology
Genetics
Bioinformatics

Thrust areas in Research

Bioremediation
Bio-fertilizer
Small RNA mediated controls in bacterial iron homeostasis
Development of anti-mycobacterial drug
RNA regulation in human infectious diseases
Cigarette smoke induced human diseases
Identification and designing of molecules against Alzheimer's Disease
Study of leucine-rich repeats as protein motifs in plant defense

Teaching support : Department is equipped with e learning facilities

Research support :

Name of the equipment	Funding agency
Bacterial culture room	UGC UGC
Tissue culture facility	DBT
Refrigerated centrifuge	DBT
-80°C freezer	DBT UGC DBT DBT UGC
Temperature controlled bacterial shaker	
Temperature controlled water bath	
Thermal cycler	
Fluorescent microscope	
UV-Vis Spectrophotometer	
UV-transilluminator	
Chemi Documentation facility	
Microscope	

Major activities :

Department organizes scientific seminars and conferences by eminent scientists

Contact

Campus : Taraknath Palit Siksha Prangan (Ballygange Campus)

Address for communication : Department of Microbiology, University of Calcutta, 35, Ballygunge Circular Road, Kolkata – 700019, West Bengal, India



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