Department of Biotechnology

Faculty Publication

Sl. No.	Name	Designation	Google Scholar Link
1	Prof. Suvroma Gupta	Professor & HOD	https://scholar.google.com/citations?user=N5HX60wAAAAJ&hl=en
2	Dr. Sudip Das	Associate Professor	https://scholar.google.com/citations?user=5y9LLKsAAAAJ&hl=en
3	Dr. Keya Sau	Associate Professor	https://www.researchgate.net/profile/Keya_sau
4	Dr. Mukesh Singh	Associate Professor	https://scholar.google.com/citations?user=ii7YhacAAAAJ&hl=en
5	Dr. Sucheta Das [Maji]	Associate Professor	https://scholar.google.co.in/citations?user=J-GI86AAAAAJ&hl=en
6	Dr. Swati Maiti	Asst. Professor	https://scholar.google.com/citations?user=pCINTCAAAAAJ&hl=en
7	Dr. Shamba Chatterjee	Asst. Professor	https://scholar.google.co.in/citations?user=TUjMttkAAAAJ&hl=en
8	Mr. Tilak Raj Maity	Asst. Professor	https://scholar.google.com/citations?user=6eksccYAAAAJ&hl=en
9	Ms. Ahana Bhaduri	Asst. Professor	https://scholar.google.com/citations?user=vfrNWHwAAAAJ&hl=en
10	Dr. Subhasish Dutta	Asst. Professor	https://scholar.google.com/citations?user=yWnFZ6kAAAAJ&hl=en

Research/ Review Article

YEAR - 2016

1. Datta S, Jana D, Maity TR, Samanta A, Banerjee R (2016) Piper betle leaf extract affects the quorum sensing and hence virulence of Pseudomonas aeruginosa PAO1. 3 Biotech, 6(1):18. DOI: 10.1007/s13205-015-0348-8.
2. Saha B, Datta S (2016) Fun Quiz: Misleading Names. Science Reporter, 53(02):60-61.
3. Mandal M, Saha B, Datta S (2016) Reverse Tradition: Nature's Devoted Dads. Science Reporter, 53(03):42-43.
4. Das S, Datta S (2016) Invisible Friends and Foes. Science Reporter, 53(09):36-38.
5. Barman J, Datta S (2016) Fun Quiz: Achrya Jagadish Chandra Bose. Science Reporter, 53(10):60-61.
6. Maity TR, Samanta A, Jana D, Saha B, Datta S (2016) In vitro flowering of tobacco induced by light emitting diode. Indian Journal of Biotechnology, 15:440-442.
7. Braman J, Samanta A, Saha B, Datta S (2016) Mycorrhiza The Oldest Association Between Plant and Fungi. Resonance, 21(12):1093-1104.
8. Maity S, Mukherjee K, Banerjee A, Mukherjee S, Dasgupta D, Gupta S (2016) Inhibition of Porcine Pancreatic Amylase Activity by Sulfamethoxazole: Structural and Functional Aspect. The Protein Journal, 35(3):237-246.
9. Sahu N, Das D, Mondal S, Roy S, Dutta P, Sepay N, Gupta S, López-Torres E, Sinha C (2016) The structural characterization and biological activity of sulfamethoxazolyl-azo-p-cresol, its copper (ii) complex and their theoretical studies. New Journal of Chemistry, 40(6):5019-5031.
10. Mukherjee S, Chatterjee S, Poddar A, Bhattacharyya B, Gupta S (2016) Cytotoxic biphenyl-4-carboxylic acid targets the tubulin–microtubule system and inhibits cellular migration in HeLa cells. Journal of Taibah University for Science, 10(6):839-849.
11. Das AK, Goswami S, Dutta G, Maity S, kanti Mandal T, Khanra K, Bhattacharyya N (2016) A concentration dependent auto-relay-recognition by the same analyte: a dual fluorescence switch-on by hydrogen sulfide via Michael addition followed by reduction and staining for bio-activity. Organic & Biomolecular Chemistry, 14(2):570-576.

12. Jana NC, Adak S, Brandão P, Mandal TK, Panja A (2016) Synthesis, structures, electronic properties and DFT calculations of cobalt (II) complexes with a redox non-innocent naphthoquinone ligand. Polyhedron, 107:48-56.
13. Panja A, Mandal TK (2016) Synthesis, crystal structure, redox property and theoretical studies of a pyrrole containing cobalt (III) Schiff base compound. Indian Journal of Chemistry, 55:137-144.
14. Santra A, Mondal G, Acharjya M, Bera P, Panja A, Mandal TK, Mitra P, Bera P (2016) Catechol oxidase mimetic activity of copper (I) complexes of 3, 5-dimethyl pyrazole derivatives: Coordination behavior, X-ray crystallography and electrochemical study. Polyhedron, 113:5-15.
15. Mongal BN, Bhattacharya S, Sengupta S, Mandal TK, Datta J, Naskar S (2016) A novel ruthenium sensitizer with–OMe substituted phenyl-terpyridine ligand for dye sensitized solar cells. Solar Energy, 134:107-118.
16. Mongal BN, Naskar S, Pal A, Bhattacharya S, Mandal TK, Datta J, Naskar S (2016) Ruthenium Complexes of Substituted Terpyridine and Pyridyl–quinoline Based Ligands with Ancillary Ligands: Synthesis, Characterization, Electrochemical Study and DFT Calculation. Chemistry Select, 1(12):3276-3287.
17. Mandal S, Mahapa A, Biswas A, Jana B, Polley S, Sau K, Sau S (2016) A surfactant-induced functional modulation of a global virulence regulator from Staphylococcus aureus. PloS One, 11(3).
18. Maiti S, Sasmal K, Sinha SS, Singh M (2016) Analysis of cytotoxicity and genotoxicity on E. coli, human blood cells and Allium cepa suggests a greater toxic potential of hair dye. Ecotoxicology and Environmental Safety, 124:248-254.
19. Singh M (2016) "Elucidation of biogenic silver nanoparticles susceptibility towards Escherichia coli: an investigation on the antimicrobial mechanism". IET Nanobiotechnol, 10(5):276-280.
20. Kumari R, Brahma G, Rajak S, Singh M, Kumar S (2016) Antimicrobial activity of green silver nanoparticles produced using aqueous leaf extract of Hydrocotyle rotundifolia. Oriental Pharmacy and Experimental Medicine, 16(3):195-201.
21. Roy P, Guha D, Banerjee R, Singh M (2016) A comparative study of three rhizospheric bacteria belonging to different genera, co-infecting a leguminous plant. Journal of Investigative Genomes, 3(3):63-73.

22. Singh M, Mallick AK, Banerjee M, Kumar R (2016) Loss of outer membrane integrity in Gram-negative bacteria by silver nanoparticles loaded with Camellia sinensis leaf phytochemicals: plausible mechanism of bacterial cell disintegration. Bulletin of Materials Science, 39(7):1871-1878.
23. Singh M (2016) Engineering enzymes to convert blood types into universal type. Science Reporter, 4:10.
24. Biswas A, Banerjee R (2016) A lab originated bacteriocin and its partial purification and demonstration of antimicrobial activity. International Journal of Current Microbiology and Applied Sciences, 5(3):728-737.
25. Datta A, Maity M, Banerjee R (2016) Seasonal variation in physical, chemical and biological characteristics of a few canal systems of east Kolkata wetland. Pollution Research, 35(2):151-159.
26. Maity M, Banerjee R (2016) Physico-chemical and microbiological study of some water bodies in two economically important cities. International Journal of Water Research, 6:20-25.
27. Banerjee R, Halder A, Natta A (2016) Psychrophilic microorganisms: Habitats and exploitation potentials. European Journal of Biotechnology and Bioscience, 4:16-24.
28. Chatterjee S, Gangopadhyay S, Patra S, Chowdhury SP (2016) An overview of different approaches for sustainable production and convertibility of hydroxymethylfurfural. International Journal of Research in Engineering and Technology, 5(1):45-52.
29. Mukherjee P, Roy P (2016) Genomic potential of Stenotrophomonas maltophilia in bioremediation with an assessment of its multifaceted role in our environment. Frontiers in Microbiology, 7:967.
30. Dhali R, Dey A, Chattopadhyay AN, Saha P, Mukhopadhyay SK, Roy P, Chatterjee S (2016) Isolation, characterization and study of amylase activity of microorganisms from arctic soil sample. Accounts of Biotechnology Research, 3:5-15.

YEAR - 2017

1. Purohit A, Ganguly S, Ghosh G, Chaudhuri RK, Datta S, Chakraborti D (2017) Variability among isolates of Fusarium udum and the effect on progression of wilt in pigeonpea. European Journal of Plant Pathology, 149:73-87.
2. Saha B, Datta S (2017) Fun Quiz: Reproductive parts in flowering plants. Science Reporter, 54(4):60-61.
3. Saha B, Datta S (2017) Palaeontology: Study of fossils. Science Roprter, 54(6):62.
4. Datta S, Saha B (2017) Indian women in science & technology. Science Reporter, 54(10):60-61.
5. Mandal M, Das S, Datta S (2017) Marine Bioinvasion: Manmade War in the Ocean. Science Reporter.
6. Polley S, Seal S, Mahapa A, Jana B, Biswas A, Mandal S, Sinha D, Sau K, Sau S (2017) Indentification and characterization of a cyclosporine binding cyclophilin from Staphylococcus aureus Newman. Bioinformation, 13(3):78-85.
7. Singh M, Seth P, Poddar S (2017) Comparative Analysis of Four Facial Foundation Lotions with Reference to Its Antioxidant Richness and Bio-Safety. Cosmetics, 4(2):12.
8. Kumar S, Bhattacharya W, Singh M, Halder D, Mitra A (2017) Plant latex capped colloidal silver nanoparticles: a potent anti-biofilm and fungicidal formulation. Journal of Molecular Liquids, 230:705-713.
9. Singh M, Singh R (2017) What makes us stammer? Science Reporter.
10. Thakur RK, Biswas P, Singh M (2017) Fruit wastes extract: a rich source of bioactive chemicals. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 8(3):928-932.
11. Maiti S, Sinha SS, Singh M (2017) Microbial decolorization and detoxification of emerging environmental pollutant: Cosmetic hair dyes. Journal of Hazardous Materials, 338:356-363.
12. Singh M, Sahareen T (2017) Investigation of cellulosic packets impregnated with silver nanoparticles for enhancing shelf-life of vegetables. LWT-Food Science and Technology, 86:116-122.
13. Roy K, Roy A, Sinha T, Mukherjee S, Chowdhury D, Chatterjee S (2017) Parametric Study and Analysis of Sol-Gel Derived [La/Va] Mg doped Composite PZT Nano

Ceramic Material for Electronic Applications. International Journal on Future Revolution in Computer Science & Communication Engineering, 3(5) 12-16.

14. Chakraborty O, Roy P (2017) The evolution of biosteelTM. BAOJ Biotechnology, 3(1):23.
15. Pramanik P, Roy P (2017) An unending source of energy: Microbial fuel cells. BAOJ Physics, 2(3):17.
16. Chakraborty O, Roy P (2017) The resolved mystery of tardigrades. Journal of Investigative Genomics, 4(2):60.
17. Bengyella L, Yekwa EL, Iftikhar S, Nawaz K, Tambo E, Alisotani A, Naser F, Roy P (2017) Cochliobolus species: Cohort of destroyers with implications in food losses and insecurity in the 21st century. Advances in Microbiology.
18. Louis B, Waikhom SD, Jose RC, Goyari S, Bhardwaj PK, Talukdar NC, Roy P (2017) Cochliobolus lunatus down-regulates proteome at late stage of colonization and transiently alters StNPR1 expression in Solanum tuberosum L. Archives of Microbiology. 199(2):237-46.
19. Bengyella L, Yekwa LE, Waikhom SD, Nawaz K, Iftikhar S, Motloi TS, Tambo E, Roy P (2017) Upsurge in curvularia infections and global emerging antifungal drug resistance. Asian Journal of Scientific Research, 10:299-307.

YEAR - 2018

1. Sahu N, Mondal S, Naskar K, Mahapatra AD, Gupta S, Slwin AMZ, Chattopadhyaya D, Sinha C (2018) Spectroscopic characterization, antimicrobial activity and molecular docking study of novel azo-imine functionalized sulphamethoxazoles. Journal of Molecular Structure, 1155:152-164.
2. Mandal M, Mukherjee A, Gupta S (2018) New vista in Parkinson's disease treatment: Magic of nanotechnology. Journal of the Indian Chemical Society, 95:997-1002.
3. Mahapa A, Mandal S, Sinha D, Sau S, Sau K (2018) Determining the Roles of a Conserved α-Helix in a Global Virulence Regulator from Staphylococcus aureus. The Protein Journal, doi: 10.1007/s10930-018-9762-1.
4. Mandal S, Ghosh S, Sinha D, Seal S, Mahapa A, Polley S, Saha D, Sau K, Bagchi A, Sau S (2018) Alanine substitution mutations in the DNA binding region of a global

staphylococcal virulence regulator affect its structure, function, and stability. International Journal of Biological Macromolecules, 113:1221-1232.

5. Sinha D, Mandal RK, Mahapa A, Sau K, Banerjee R, Sau S (2018) A staphylococcal anti-sigma factor possesses a single-domain, carries different denaturant-sensitive regions and unfolds via two intermediates. Plos One, 13.
6. Shabbir M, Singh M, Maiti S, Kumar S, Saha SK (2018) Removal enactment of organo-phosphorous pesticide using bacteria isolated from domestic sewage. Bioresource Technology, 263:280-288.
7. Goswami S, Singh M (2018) Microwave mediated synthesis of Zinc oxide nanoparticles: a therapeutic approach against Malassezia species. IET Nanobiotechnology, 12:903-908.
8. Basumatarya K, Daimarya P, Dasa SK, Thapab M, Singh M, Mukherjeea A, Kumara S (2018) Lagerstroemia speciosa fruit-mediated synthesis of silver nanoparticles and its application as filler in agar based nanocomposite films for antimicrobial food packaging. Food Packaging and Shelf Life, 17:99–106.

YEAR - 2019

1. Sinha TB, Singharoy D, Das HS, Gupta S, Khatua PK (2019) Photophysical studies of the dye 1-Anilinonapthalene-8-sulfonic acid in different solvents and its quantum chemical investigation. Journal of Molecular Structure, 1179:462-468.
2. Datta S, Roy A (2019) Biomimicry. Science Reporter, 1:56-57.
3. Maity TR, Samanta A, Saha B, Datta S (2019) Evaluation of Piper betle mediated silver nanoparticle in post-harvest physiology in relation to vase life of cut spike of Gladiolus. Bulletin of the National Research Centre, 43:9.
4. Samanta A, Maity TR, Das S, Datta AK, Datta S (2019) Effect of etoposide on grass pea DNA topoisomerase II: an in silico, in vivo, and in vitro assessments. Bulletin of the National Research Centre, 43:170.
5. Roy A, Datta S (2019) Lives in extreme environments. Science Reporter, 2:56-57.
6. Saha B, Datta S (2019) Food manufacturing by green plants. Science Reporter, 7:62-63.
7. Majumdar TD, Singh M, Thapa M, Dutta M, Mukherjee A, Ghosh CK (2019) Size-dependent antibacterial activity of copper nanoparticles against Xanthomonas oryzae

pv. oryzae–A synthetic and mechanistic approach. Colloid and Interface Science Communications, 32:100190.

8. Thapa M, Singh M, Ghosh CK, Biswas PK, Mukherjee A (2019) Zinc sulphide nanoparticle (nZnS): A novel nano-modulator for plant growth. Plant Physiology and Biochemistry, 142:73-83.
9. Dutta S, Bhunia B, Raju A, Maity N, Dey A (2019) Enhanced rapamycin production through kinetic and purification studies by mutant strain of Streptomyces hygroscopicus NTG-30-27. Chemicals Papers, DOI: 10.1007/s11696-019-00767-0.

YEAR - 2020

1. Dutta S, Dey A (2020) Rapamycin Overproduction by Combined Mutational Study. Current Biochemical Engineering, 6(1):62-67
2. Mudhoo A, Paliya S, Goswami P, Singh M, Lofrano G, Carotenuto M, Carraturo F, Libralato G, Guida M, Usman M, Kumar S (2020) Fabrication, functionalization and performance of doped photocatalysts for dye degradation and mineralization: a review. Environmental Chemistry Letters, 8:1-79
3. Paul T, Datta S, Datta N (2020) Axolotl: a ray of hope for organ regeneration. Scientific India.
4. Das M, Roy S, Guha C, Saha AK, Singh M (2020) In vitro evaluation of antioxidant and antibacterial properties of supercritical CO2 extracted essential oil from clove bud (Syzygium aromaticum). Journal of Plant Biochemistry and Biotechnology, 23:1-5.

YEAR - 2021

1. Malla A, Mukherjee K, Mandal M, Mukherjee A, Sur R, Gupta S (2021) An insight to the toxic effect of Sulfamerazine on Porcine Pancreatic Amylase and Lactate Dehydrogenase Activity: An in vitro study. Current Chemical Biology, 15
2. Das S, Mandal V, Mandal NC (2021) Broad-spectrum antimicrobial efficacy of Pediococcus acidilactici LAB001 against food spoilage and toxigenic bacteria and fungi. Journal of Food Processing and Preservation, 45(1):e15066.

3. Das S, Maji K, Mandal NC, Sen S (2021) Screening of a Lactobacillus species (LAB M8) as probiotic: In vivo and In vitro study. International Journal of Health and Clinical Research, 4(5):237-242.
4. Chakraborty T, Polley S, Sinha D, Seal S, Sinha D, Mitra SK, Hazra J, Sau K, Pal M, Sau S (2021) Structurally distinct unfolding intermediates formed from a staphylococcal capsule-producing enzyme retained NADPH binding activity. Journal of Biomolecular Structure and Dynamics, 30:1-8.
5. Samanta A, Banerjee S, Maity TR, Datta S (2021) Assessment of Oxaliplatin and Carboplatin on some attributes of cell division in Lathyrus sativus L. Cytologia, 86(3):215–219.
6. Samanta A, Banerjee S, Maity TR, Saha B, Datta S (2021) Development of a plant-based bioassay system to screen anti-cancerous lead molecule(s). Vigyan Prakash, 19(1-2):11-18.
7. Sarkar P, Samanta A, Maity TR, Datta S (2021) Evaluation of the effects of 5-fluorouracil and cyclophosphamide on Lathyrus sativus L. Bulletin of the National Research Centre, 45:153.
8. Shabbir M, Singh M, Maiti S, Saha SK (2021) Organophosphate pesticide (Chlorpyrifos): environmental menace; study reveals genotoxicity on plant and animal cells. Environmental Challenges, 5:100313.
9. Chakraborty P, Paul P, Kumari M, Bhattacharjee S, Singh M, Maiti D, Dastidar DG, Akhter Y, Kundu T, Das A, Tribedi P (2021) Attenuation of Pseudomonas aeruginosa biofilm by thymoquinone: an individual and combinatorial study with tetrazine-capped silver nanoparticles and tryptophan. Folia Microbiologica, 66(2):255-271.
10. Seal S, Banerjee N, Mahato R, Kundu T, Sinha D, Chakraborty T, Sinha D, Sau K, Chatterjee S, Sau S (2021) Serine 106 preserves the tertiary structure, function, and stability of a cyclophilin from Staphylococcus aureus. Journal of Biomolecular Structure and Dynamics, 10.1080/07391102.2021.2021992.

Book/ Book Chapter

Name of the Teacher	Title of the Book Published	Title of the Chapter Published	Year of Publication	ISBN/ ISSN Number	Name of the Publisher
Mukesh Singh, Pranab Roy	Research Frontiers in Sciences	Biodegradation of Chlorinated Hydrocarbons and Pesticisdes, Potential health Risks	2016	978-81-931247-1-0	Bhumi Publishing, India.
Siraj Datta	Plant based anticancerous lead identification strategy	In vivo, in vitro and in silico assessment of some potential anticancerous drugs on plant system	2016	978-3-659-93814-6	Lambert Academic Publishing, Germany
Pranab Roy	Pathogenecity of Cochliobolus sp. in Post Genomic Era	Insights into Cochliobolus lunatus diseases in Post Genomic Era	2017	1-62699-075-1	Studium Press LLC, USA.
Shamba Chatterjee		Lead Zirconium Titanate Nano Ceramic Thin Films and Sensors Industrial Applications	2017	978-3-330-06278-8	Lambert Academic Publishing, Germany
Pranab Roy	Pathogenecity of Cochliobolus sp. in Post Genomic Era	Paradigm host range evolution of Cochliobolus lunatus in Post Genomic Era	2017	1-62699-075-1	Studium Press LLC, USA.
Mukesh Singh	Recent Progress in Medicinal Plants	Formulation of Gymnema sylvestre (Gurmar) methanolic extract with tea, Betel	2018	1-62699-083-2	Studium Press LLC, USA.

		vine and cracker plant extracts yields promising natural therapy for metabolic disorders			
Mukesh Singh	Plant-Based Functional Foods and Phytochemicals	Value-Added Products with Bioactive Compounds from Fruit Wastes.	2020	9781771889292	Apple Academic Press, US.
Mukesh Singh	Various Larval Forms of Different Animals	-	2020	978-6202528115	Lambert Academic Publishing
Shamba Chatterjee	Unleashing the Trends in Contemporary Management Issues	Generation of Marketable Enzyme as Byproduct of Grape Pomace Bioconversion - Creation of Asset from Waste	2020	978-93-88865-33-3	Abhijeet Publications
Suvroma Gupta	An Introduction to Cancer Therapy	Sulfonamides: a valuable weapon against cancer with sulfamethoxazole as a potential repurposed lead molecule	2020	978-153618-450-1	Nova Science Publishers, Inc
Suvroma Gupta, Mukesh Singh, Ahana Bhaduri	Emerging Concept in Chemical and Biological Sciences	L-Asparaginase: Challenges and Development of Next Generation ASNase Therapeutic Molecule Therapeutic Molecule	2020	978-0-6488798-0-0	Lincoln Research and Publications Limited, Australia in Collaboration with Lincoln University College, Malaysia.

Sucheta Das Maji	Emerging Concept in Chemical and Biological Sciences	Isolation and screening of some food grade Lactic acid bacteria for biosurfactant production	2020	978-0-6488798-0-0	Lincoln Research and Publishing Limited, Australia in collaboration with Lincoln University College, Malaysia.
Subhasish Dutta	Nanotechnology for Advances in Medical Microbiology, Environmental and Microbial Biotechnology	Holistic Approaches for Enhanced Production of Prodigiosin—a Natural Biocolour	2021	978-981-15-9916-3	Springer
Shamba Chatterjee, Sucheta Das Maji	Advances in Science Education	Interdisciplinary Education Trends in School and Higher Education: A Review	2021	978-0-6488798-2-4	Lincoln Research and Publications Limited, Australia
Mukesh Singh	Sustainable Agriculture Reviews	Strategy for the Inspection of Pesticide Residues in Food and Agriculture	2021	978-3-030-54712-7	Springer