



## Dr. YUGAL KISHORE MOHANTA, PhD

### Assistant Professor

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### WORK EXPERIENCES

October, 2021-Till date	Assistant Professor	University of Science and Technology, Meghalaya
September, 2019- November, 2019	Visiting Researcher	University of Nizwa, Oman
April, 2016-July,2016	Visiting Research Scholar	KU Leuven, Belgium
August,2015-April,2016	Guest Lecturer	MPC (Auto.) college, Odisha, India
December, 2011- November,2013	Junior Research Fellow	NIT Rourkela, Odisha, India
December,2010-June,2011	Industrial trainee	BCIL, DBT, Govt. of India

### EDUCATIONAL QUALIFICATIONS

Sl. No	Degrees	Year	Subjects	University/Institution
01	BS	2008	Biotechnology	North Orissa University
02	MS	2010	Biotechnology	North Orissa University
03	PhD	2019	Life Sciences	North Orissa University

## CURRENT RESEARCH ACTIVITY

Exploring natural bioresources for designing and synthesizing bio-functional nanomaterials for application in food, agriculture, medicine, and environments (**Nano-FAME**)

### Research themes

- Development of Nano-nutraceuticals through biomass valorization
- Nutritional and Microbial diversity evaluation of fermented foods from North East India
- Nanotechnological application in food preservation and packaging

## FIELDS OF INTEREST

Nano-biotechnology, Natural Products, Fermented Foods, Microbiology, and Nutraceuticals

## RESEARCH PROJECT GRANTS

**Topic:** Search for nutraceutical lead molecules from wild edible mushroom (WEMs) extracts and utilization as prebiotic sources to develop synbiotic microcapsules

**Grant No:** SRG/2022/000641

**Duration:** 2022-2024

**Funding Agency:** SERB, Department of Science and Technology, Government of India

## PATENTS FILE/PUBLISHED/GRANTED

- ❖ RHAMNOLIPID BIOSURFACTANT COATED IRON NANOPARTICLE: A CREDIBLE APPROACH TOWARDS POTENTIAL PETROLEUM HYDROCARBON REMEDIATION (**Application No. 202331052858 A; published on 13/10/2023**)
- ❖ SYNTHESIS OF RHAMNOLIPID BIOSURFACTANT COATED ZINC-OXIDE NANOPARTICLE AND ITS ANTICANCER POTENTIAL AGAINST HUMAN BREAST CANCER CELL LINES (**Application No.202331052859 A; published on 13/10/2023**)

## PROFESSIONAL RECOGNITION/ AWARD/ PRIZE/ CERTIFICATE/ FELLOWSHIP RECEIVED

- ❖ Visiting Assistant Professor, Chettinad Academy of Research and Education (CARE), Tamilnadu, India
- ❖ State President (Assam & Meghalaya), Microbiologist Society, India 2023-2024.
- ❖ Peer Reviewer (2022) Recognition by Wiley Publications 2023.
- ❖ Peer Reviewer (2022) Recognition by ACS Publications, American Chemical Society, 2023.
- ❖ Outstanding Researchers of the Year -2022 award by University of Science and Technology Meghalaya.
- ❖ Visiting Research Fellowship by KU Leuven, Belgium, April- June 2016.
- ❖ DST-Inspire Fellowship by Department of Science and Technology, Govt. of India, 2011.
- ❖ BCIL- Industrial Trainee Fellowship by Department of Biotechnology, Govt. of India, 2010.

## PAST TEACHING EXPERIENCES

- ❖ Lecturer in P.G. Department of Biochemistry, M.P.C. Autonomous College, Baripada, Odisha India (From 1<sup>st</sup> August 2015 -April 2016)

- ❖ Teaching Assigned to Biochemistry (Elective) papers in P.G. Department of Botany, North Orissa University, Baripada, India (From 2016-2018)

### CURRENT COURSE TEACHINGS

- Plant Biotechnology
- Environmental Biotechnology
- Genetic Engineering
- Bioprocess Technology

### INDUSTRIAL EXPOSURE

Industrial Trainee in Biotech Industrial Training Programme 2010-11 sponsored by **Biotech Consortium India Limited, Department of Biotechnology, Government of India** at Tectona Biotech Resource Centre (TBRC), Bhubaneswar.

### EDITORIAL EXPERIENCES

#### Guest Associate/Review Editor:

Frontiers in Nanotechnology, Frontiers in Pharmacology, Frontiers in Oncology, Frontiers in Cellular and Infection Microbiology [Link](#)

### REVIEWERS FOR JOURNALS

International Journal of Biological Macromolecules, Environmental Research, Food and Function, Scientific Reports, International Journal of Nanomedicine, Applied Organometallic Chemistry, IET Nanobiotechnology, MDPI Crystals, MDPI Antibiotics, MDPI Nutraceuticals, MDPI Materials, MDPI Agronomy, MDPI Processes, MDPI Molecules, MDPI Pharmaceuticals, Nano Plant Biology, Chemical Papers, Journal of Cluster Sciences, Frontiers in Oncology, Green Processing and Synthesis, Journal of Molecular Structures and Dynamics, Journal of Applied Microbiology, Journal of Nanoparticle Research, Journal of Pure and Applied Microbiology, Micro Nanoletter, Applied Biochemistry and Biotechnology, Process Biochemistry, Waste Management, Waste and Biomass Valorization, Advances in Natural Sciences: Nanoscience and Nanotechnology, Journal of Experimental Nanoscience, Inorganic and Nanometal Chemistry, Journal of Total Bioactive Products, International Journal of Environmental Analytical Chemistry, Applied Food Research, Expert Opinion On Pharmacotherapy, Artificial Cells, Nanomedicine and Biotechnology, Particulate Science and Technology, Frontiers in Pharmacology, Journal of Food Sciences, ACS Omega, ACS Nano, Journal of Food Processing and Preservation, Microbial Cell Factories

### LIST OF PUBLICATIONS (Cumulative Impact Factors: 397.70)

#### Publications Year 2024

1. Mrunal S. Wagh, Sowjanya S., P.C. Nath, A. Chakraborty, R. Amrit, B. Mishra, A. K. Mishra, [Y. K. Mohanta](#) (2024) Valorisation of agro-industrial wastes: circular bioeconomy and biorefinery process – a sustainable symphony. **Process Safety and Environmental Protection** 183: 708–725, ISSN 0957-5820 <https://doi.org/10.1016/j.psep.2024.01.055>. [Q1: IF- 7.8]
2. R. Sharma, P. C. Nath, [Y. K. Mohanta](#), B. Bhunia, B. Mishra, M. Sharma, S. Suri, M. Bhaswant, P. K. Nayak, K. Sridhar (2024) Recent advances in cellulose-based sustainable materials for wastewater treatment: An

- overview. **International Journal of Biological Macromolecules** 256(2): 128517, ISSN 0141-8130 <https://doi.org/10.1016/j.ijbiomac.2023.128517>. [Q1: IF- 8.20]
3. Q. Y. Tamboli, S. M. Patange, [Y. K. Mohanta](#), A. D. Patil, S. R. Kamble, R. Alig, I. Bushnak, K. R. Zakdea (2024) *Moringa oleifera* Gum-Assisted Synthesis and Characterization of CoAg<sub>x</sub>Fe<sub>2</sub>-xO<sub>4</sub>: Insight into Structural, Magnetic, Optical, and Biomedical Properties. **ACS Omega** 2024, ISSN 2470-1343, <https://doi.org/10.1021/acsomega.3c06578>. [Q2: IF- 4.10]
  4. M. Sharifi-Rad, [Y. K. Mohanta](#), P. Pohl, D.Nayak, M. Messaoudi (2024) Facile phytosynthesis of gold nanoparticles using *Nepeta bodeana* Bunge: Evaluation of its therapeutics and potential catalytic activities. **Journal of Photochemistry & Photobiology, A: Chemistry** 446:115156.ISSN 18732666/10106030 <https://doi.org/10.1016/j.jphotochem.2023.115150>. [Q2: IF- 4.30]

### Publications Year 2023

5. B.Sarma, H. Kashtoh, T. L. Tamang, P.N. Bhattacharyya, [Y. K. Mohanta\\*](#), and K. H. Baek (2023) Abiotic Stress in Rice: Visiting the Physiological Response and Its Tolerance Mechanisms. **Plants** 12(23):3948, ISSN: 2223-7747 <https://doi.org/10.3390/plants12233948>. [Q1: IF 4.5]
6. [Y.K. Mohanta](#), A. K. Mishra, J. Panda, I. Chakrabartty, B. Sarma, S. K. Panda, H. Chopra, G. Zengin, M. G. Moloney, M. Sharifi-Rad (2023) Promising applications of phyto-fabricated silver nanoparticles: Recent trends in biomedicine. **Biochemical and Biophysical Research Communications** 668:149126. ISSN 1090-2104 <https://doi.org/10.1016/j.bbrc.2023.149126>. [Q3: IF- 3.10]
7. N.S.V. Lakshmayyaa, A. K. Mishra, [Y. K. Mohanta\\*](#), J. Panda, B. Naik, B. Mishra, R. S. Varma (2023) Essential oils-based nano-emulsion system for food safety and preservation: Current status and future prospects. **Biocatalysis and Agriculture Biotechnology** 53: 102897 ISSN: 1878-8181 <https://doi.org/10.1016/j.bcab.2023.102897> [Q3: IF- 4.0]
8. H. Chopra, [Y.K. Mohanta](#), S. Mahanta, T. K. Mohanta, I. Singh, S. K. Avula, S. P. Mallick, A. A. Rabaan, H. AlSaihati, A. Alsayyah, M. Alissa, H. R. Alturaifi, B. AlAlwan, M. S. Attia, S. Chakraborty, K. Dhama (2023) Recent updates in nanotechnological advances for wound healing: A narrative review. **Nanotechnology Reviews** 12: 20230129, ISSN: 2191-9089/ 2191-9097 <https://doi.org/10.1515/ntrev-2023-0129> . [Q1: IF- 7.4]
9. B. P. Panda, [Y. K. Mohanta](#), R. Paul, B. A. K. Prusty, S. P. Parida, A. Pradhan, M. Saravanan, K. Patowary, G. Jiang, S. J. Joshi, H. Sarma (2023) Assessment of environmental and carcinogenic health hazards from heavy metal contamination in sediments of wetlands. **Scientific Reports** 13:16314, ISSN: 2045-2322 <https://doi.org/10.1038/s41598-023-43349-7>. [Q2: IF- 4.60]
10. M.K. Ray, A. K. Mishra, [Y. K. Mohanta](#), S. Mahanta, I. Chakrabartty, N. A. Kungwani, S. K. Avula, J. Panda, R. N. Pudake (2023) Nanotechnology as a Promising Tool against Phytopathogens: A Futuristic Approach to Agriculture. **Agriculture** 13: 1856 ISSN 2077-0472 <https://doi.org/10.3390/agriculture13091856>. [Q1: IF- 3.60]
11. B. Mishra, [Y.K. Mohanta](#), C.N. Reddy, S.D.M. Reddy, S. K. Mandal, R. Yadavalli, H. Sarma (2023) Valorization of agro-industrial biowaste to biomaterials: An innovative circular bioeconomy approach. **Circular Economy** ISSN: 2347-4459 <https://doi.org/10.1016/j.cec.2023.100050>.
12. A. Balasubramanian, R. Ganesan, [Y. K. Mohanta](#), J. Arokiaraj, M. Saravanan (2023) Characterization of bioactive fatty acid metabolites produced by the halophilic *Idiomarina sp.* OM679414.1 for their antimicrobial and anticancer activity. **Biomass Conversion and Biorefinery** ISSN 21906815/21906823 <https://doi.org/10.1007/s13399-023-04687-8>. [Q2: IF- 4.00]
13. [Y.K. Mohanta](#), A.K. Mishra, A. Nongbet, I. Chakrabartty, S. Mahanta B. Sarma, J. Panda, S.K. Panda (2023) Potential Use of the Asteraceae Family as a Cure for Diabetes: A Review of Ethnopharmacology to

- Modern day Drug and Nutraceuticals Developments. **Frontiers in Pharmacology** 14 (2023). ISSN1663-9812. [10.3389/fphar.2023.1153600](https://doi.org/10.3389/fphar.2023.1153600). [Q1: IF- 5.988]
14. K. Murugan, R. Rajaganesh, J.-S. Hwang, L. Wang, M. Vasanthakumaran, H.-U. Dahms, C. Panneerselvam, [Y. K. Mohanta](#), S. Muthupandian, R. B. Janarthnam, F. Chen, N. A. H. Alkenani (2023) Smoke toxicity effect of bio-fabricated mosquito coil for the sustainable management of mosquito vectors. **Journal of Natural Pesticide Research** 6:100048. ISSN 2773-0786 <https://doi.org/10.1016/j.napere.2023.100048>
  15. R. R. Baruah, [Y.K. Mohanta\\*](#), M. Saha, S. S. Ghosh, M. C. Kalita and D. Devi (2023) Reinforced non-mulberry silk fibroin-fibroin nanocomposites and their optimization for tissue engineering applications. **Journal of Material Sciences** 58(24):10131-10147. ISSN 2321-6212 <https://doi.org/10.1007/s10853-023-08625-x> [Q2: IF- 4.682]
  16. B. P. Panda, [Y.K. Mohanta](#), S. P. Parida, A. Pradhan, T. K. Mohanta, K. Patowary, W. A. W. Mahari, S. S. Lam, A. A. Ghfar, G. Guerriero, M. Verma, H. Sarma (2023) Metal pollution in freshwater fish: A key indicator of contamination and carcinogenic risk to public health. **Environmental Pollution** 330: 121796. ISSN 1873-6424 <https://doi.org/10.1016/j.envpol.2023.121796> [Q1: IF- 9.998] [Link](#)
  17. T. K. Mohanta, [Y.K.Mohanta](#), P. Kaushik, J. Kumar (2023) Physiology, genomics, and evolutionary aspects of desert plants. **Journal of Advanced Research** (online published) ISSN 2090-1232 <https://doi.org/10.1016/j.jare.2023.04.019> [Q1: IF- 12.877] [Link](#)
  18. H. Chopra, S. Bibi, [Y.K.Mohanta](#), T. K. Mohanta, S. Kumar, I. Singh, M. S. Khan, P. R. Rauta, A. Alshammari, M. Alharbi, A. F. Alasmari (2023) In Vitro and In Silico Characterization of Curcumin-Loaded Chitosan-PVA Hydrogels: Antimicrobial and Potential Wound Healing Activity. **Gels** 9(5), 394 ISSN 2310-2861 <https://doi.org/10.3390/gels9050394> [Q1: IF- 4.432] [Link](#)
  19. B. Mishra, S. Muthupandian, H. Barabadi, K. Tayung, [Y.K.Mohanta\\*](#) (2023) Editorial: Anti-cancer bioactive molecules from microbial sources. **Frontiers in Pharmacology** 14; ISSN1663-9812 <https://doi.org/10.3389/fphar.2023.1190354> [Q1: IF- 5.988] [Link](#)
  20. H. Chopra, [Y.K.Mohanta\\*](#), P. R. Rauta, R. Ahmed, S. Mahanta, P. K. Mishra, P. Panda, A. A. Rabaan, A. A. Alshehri, B. Othman, M. A. Alshahrani, A. S. Alqahtani, B. A. AL Basha and K. Dhama (2023) An insight into advances in developing Nanotechnology based therapeutics, drug delivery, diagnostics and vaccines: Multi-dimensional applications in tuberculosis disease management. **Pharmaceuticals** 16(4), 581; ISSN 1424-8247 <https://doi.org/10.3390/ph16040581> [Q1: IF- 5.215] [Link](#)
  21. M. Z. Shamim, A. K. Mishra, T. Kausar, S. Mahanta, B. Sarma, V. Kumar, P. K. Mishra, J. Panda, K.H. Baek and [Y.K.Mohanta](#) (2023) Exploring Edible Mushrooms for Diabetes: Unveiling Their Role in Prevention and Treatment. **Molecules**, 28(6), 2837. ISSN:1420-3049 <https://doi.org/10.3390/molecules28062837> [Q1: IF- 4.927] [Link](#)
  22. [Y. K. Mohanta](#), I. Chakrabartty, A. K. Mishra, H. Chopra, S. Mahanta, S. K. Avula, K. Patowary, R. Ahmed, B. Mishra, T. K. Mohanta, M. Saravanan, N. Sharma (2023) Nanotechnology in combating biofilm: A smart and promising therapeutic strategy. **Frontiers in Microbiology**, 13–2022. ISSN: 1664-302X <https://doi.org/10.3389/fmicb.2022.1028086> [Q1: IF-6.064] [Link](#)
  23. Q. Y. Tamboli, S. M. Patange, [Y.K.Mohanta](#), R. Sharma, K. R. Zakde (2023) Green synthesis of cobalt ferrite nanoparticles: An emerging material for environmental and biomedical applications. **Journal of Nanomaterials**, Article ID 9770212, Volume 2023. ISSN 1687-4129 <https://doi.org/10.1155/2023/9770212> [Q3: IF- 3.791] [Link](#)
  24. K. Das, R. Meena, U. S. Gaharwar, E. Priyadarshini, K. Rawat, Paulraj R, [Y.K.Mohanta](#), M. Saravanan, H. B. Bohidar (2023) Bioaccumulation of CdSe quantum dots show biochemical and oxidative damage in



- Wistar rats. **Oxidative Medicine and Cellular Longevity**, vol. 2023, Article ID 7707452, 13 pages ISSN 1942-0994 <https://doi.org/10.1155/2023/7707452> [Q1: IF- 7.31] [Link](#)
25. H. Barabadi, H. Noqani, F. Ashouri, A. Prasad, K. Jounaki, K. Mobaraki, [Y.K.Mohanta](#), E. Mostafavi (2023) Nanobiotechnological approaches in anticoagulant therapy: The role of bioengineered silver and gold nanomaterials. **Talanta** 256: 124279 ISSN: 0039-9140 <https://doi.org/10.1016/j.talanta.2023.124279> [Q1: IF- 6.556] [Link](#)
26. T.K. Mohanta, [Y.K.Mohanta](#), N. Sharma (2023) Anticodon table of the chloroplast genome and identification of putative quadruplet anticodons in chloroplast tRNAs. **Scientific Reports** 13:760 ISSN:2045-2322 <https://doi.org/10.1038/s41598-023-27886-9> [Q2: IF 4.996] [Link](#)
27. K. Patowary, T. Bhuyan, R. Patowary, [Y.K.Mohanta](#), B. P. Panda, S. Deka, N.F. Islam, S. J. Joshi, H. Sarma (2023) Soil treatment using a biosurfactant producing bacterial consortium in rice fields contaminated with oily sludge— a sustainable approach. **Environmental Research** 220:115092 ISSN:0013-9351 <https://doi.org/10.1016/j.envres.2022.115092> [Q1: IF- 8.431] [Link](#)
28. S. Majeed, M. Saravanan, M. Danish, N. A. Zakariya, M. N. M. Ibrahim, E. H. Rizvi, S. NisaAndrabi, H. Barabadi, [Y.K.Mohanta](#), E. Mostafavi (2023) Bioengineering of green-synthesized TAT peptide-functionalized silver nanoparticles for apoptotic cell-death mediated therapy of breast adenocarcinoma. **Talanta** 253:124026 ISSN:0039-9140 <https://doi.org/10.1016/j.talanta.2022.124026> [Q1: IF- 6.556] [Link](#)
29. R. K. Singla..... [Y.K.Mohanta](#)..... Atanas G. Atanasov, Bairong Shen (2023) The International Natural Product Sciences Taskforce (INPST) and the power of Twitter networking exemplified through #INPST hashtag analysis. **Phytomedicine** 108: 154520 ISSN: 0944-7113 <https://doi.org/10.1016/j.phymed.2022.154520> [Q1: IF- 6.656] [Link](#)

### Publications Year 2022

30. T.K. Mohanta, [Y.K.Mohanta](#), A.A. Harrasi (2022) Decoding the Virtual 2D Map of the Chloroplast Proteomes. **Biological Procedures Online** ISSN: 14809222 24:23 <https://doi.org/10.1186/s12575-022-00186-8> [Q1: IF-7.717] [Link](#)
31. G.S. Navgire, N. Goel, G. Sawhney, M. Sharma, P. Kaushik, [Y.K. Mohanta](#), T.K. Mohanta, A.A. Harrasi (2022) Analysis and Interpretation of Metagenomics Data: An Approach. **Biological Procedures Online** ISSN: 14809222 24:18 <https://doi.org/10.1186/s12575-022-00179-7> [Q1: IF-7.717] [Link](#)
32. S. Sangeet, A. Khan, S. Mahanta, N. Roy, S. K. Das, [Y.K.Mohanta](#), M. Saravanan, H. Tag, P.K.Hui (2022) Computational analysis of *Bacopa monnieri* (L.) Wettst. compounds for drug development against Neurodegenerative Disorders. **Current Computer-Aided Drug Design** ISSN: 1573-4099 [10.2174/1573409918666221010103652](https://doi.org/10.2174/1573409918666221010103652) [Q4: IF-1.693] [Link](#)
33. S. Padhi, M. Masi, [Y.K.Mohanta](#), M. Saravanan, S. Sharma, A. Cimmino, D. Shanmugarajan, A. Evidente, K. Tayung, A. K. Rai (2022) *In silico* pharmacokinetics, molecular docking and dynamic simulation studies of endolichenic fungi secondary metabolites: An implication in identifying novel kinase inhibitors as potential anticancer agents. **Journal of Molecular Structure** 1273:134390 ISSN: 0022-2860 <https://doi.org/10.1016/j.molstruc.2022.134390> [Q3: IF- 3.841] [Link](#)
34. H. Kumar, N. Aggarwal, M. G. Marwaha, A. Deep, H. Chopra, M. M. Matin, A. Roy, T. B. Emran, [Y.K. Mohanta](#), T. K. Mohanta, R. Ahmed, S. Muthupandian, R. K. Marwaha, A. A. Harrasi (2022) Thiazolidin-2,4-Dione Scaffold: An Insight into Recent Advances as Antimicrobial, Antioxidant, Hypoglycemic Agents, Mechanism of Action and Patents Granted. **Molecules**. 27(19), 6763 [ISSN:1420-3049](https://doi.org/10.3390/molecules27196763) <https://doi.org/10.3390/molecules27196763> [Q1: IF- 4.927] [Link](#)

35. A. Chanda, S. Kalita, A. K. Mishra, L. Changkakoti, J. B. Sarma, K. Biswas, D. Kakati, [Y. K. Mohanta](#), B. Tanti, S. Mahanta, M. Saravanan (2022) Identification of Concomitant Inhibitors against Glutamine Synthetase and Isocitrate Lyase in Mycobacterium tuberculosis from Natural Sources. **Biomed Research International**. Article ID 4661491. ISSN: 2314-6141 <https://doi.org/10.1155/2022/4661491> [Q3: IF-3.246] [Link](#)
36. T. K. Mohanta, [Y.K.Mohanta](#), S. K. Avula, A. Nongbet, A. Al-Harrasi (2022) Virtual 2D map of cyanobacterial proteomes. **PLoS ONE**. 17(10): e0275148. ISSN: 1932-6203 <https://doi.org/10.1371/journal.pone.0275148> [Q2: IF-3.752] [Link](#)
37. A. Nongbet, A.K. Mishra, [Y.K.Mohanta](#), S. Mahanta, M.K. Ray, M. Khan, K-H Baek, I. Chakrabartty (2022) Nanofertilizers: A Smart and Sustainable Attribute to Modern Agriculture. **Plants**. 11(19):2587. ISSN: 2223-7747 <https://doi.org/10.3390/plants11192587> [Q1: IF-4.658]
38. M. Sharifi-Rad, [Y. K. Mohanta](#), P. Pohl, N. Jaradat, Mourad A.M., Aboul-Soud, G. Zengin (2022) Variation of phytochemical constituents, antioxidant, antibacterial, antifungal, and anti-inflammatory properties of *Grantia aucheri* (Boiss.) at different growth stages. **Microbial Pathogenesis**. 172: 105805. ISSN: 0882-4010 <https://doi.org/10.1016/j.micpath.2022.105805> [Q3: IF-3.848]
39. [Y.K.Mohanta](#), D. Nayak, A.K. Mishra, I. Chakrabartty, M.K. Ray, T.K. Mohanta, K. Tayung, R. Rajaganesh, M. Vasanthakumaran, S. Muthupandian, K. Murugan, G.D. Sharma, H-U Dahms, J-S Hwang (2022) Green Synthesis of Endolichenic Fungi Functionalized Silver Nanoparticles: The Role in Antimicrobial, Anti-Cancer, and Mosquitocidal Activities. **International Journal of Molecular Sciences**. 23(18):10626. ISSN:1422-0067 <https://doi.org/10.3390/ijms231810626> [Q1: IF- 6.208]
40. M. Sharma, A.K. Delta, P. S. Dhanda, P. Kaushik, [Y.K.Mohanta](#), M. Saravanan, T. K. Mohanta (2022) AMF and PSB applications modulated the biochemical and mineral content of the eggplants. **Journal of Basic Microbiology** 62(11):1371-1378. ISSN 0233111X, 15214028 [10.1002/jobm.202200231](https://doi.org/10.1002/jobm.202200231) [Q3: IF- 2.6]
41. I. Chakrabartty, K. R. Hakeem, [Y.K.Mohanta](#), R. S. Varma (2022) Greener Nanomaterials and their Diverse Applications in the Energy Sector. **Clean Technologies and Environmental Policy** 24:3237-3252 ISSN: 1618954X <https://doi.org/10.1007/s10098-022-02368-0> [Q3: IF- 4.700]
42. A. Prasad, A. Khatua, [Y.K.Mohanta](#), M. Saravanan, R. Meena, I. Ghosh (2022) Low-Dose Exposure of Phytosynthesized Gold Nanoparticle Combined with Glutamine Deprivation Enhances Cell Death in Cancer Cell line HeLa via Oxidative Stress-Mediated Mitochondrial Dysfunction and G0/G1 Cell Cycle Arrest. **RSC-Nanoscale** 14:10399-10417 ISSN 2040-3364 / 2040-3372 <https://doi.org/10.1039/D2NR02150A> [Q1: IF- 8.307]
43. B. Mishra, [Y.K.Mohanta](#), S. Varjani, S. K. Mandal, L. NSV, P. Chaturvedi, M. K. Awasthi, Z. Zhang, R. Sindhu, P. Binod, R. R. Singhanian, V. Kumar (2022) A critical review on valorization of food processing wastes and by-products for pullulan production. **Journal of Food Science and Technology** <https://doi.org/10.1007/s13197-022-05490-5> [Q3: IF- 3.574]
44. Y. Madhavan, K. V. Sai, D. K. Shanmugam, A. Manimaran, K. Guruviah, [Y. K. Mohanta](#), D. C. Venugopal, T. K. Mohanta, N. Sharma, S. Muthupandian (2022) Emerging Therapeutic Options for COVID-19 Associated Mucormycosis: Present Status and Future Perspectives. **Journal of Clinical Medicine** 11 (13): 3620 ISSN: 2077-0383 <https://doi.org/10.3390/jcm11133620> [Q1: IF- 4.964]
45. H. Chopra, A.K. Mishra, I. Singh, [Y.K.Mohanta](#), R. Sharma, T.B. Emran, S. Bibi (2022) Nano-chitosan: A novel material for glioblastoma treatment. **International Journal of Surgery** 104: 106713 ISSN: 1743-9191 doi: <https://doi.org/10.1016/j.ijssu.2022.106713> [Q1: IF- 13.04]
46. I. Chakrabartty, M. Khan, S. Mahanta, H. Chopra, M. Dhawan, O. P. Choudhary, S. Bibi, [Y.K.Mohanta](#), T. B. Emran (2022) Comparative overview of emerging RNA viruses: Epidemiology, pathogenesis, diagnosis,

- and current treatment. **Annals of Medicine and Surgery** June 11, 2022: 103985 ISSN 2049-0801 <https://doi.org/10.1016/j.amsu.2022.103985>
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### Books:

1. Edited a book entitled "**Nanotechnology in Biology and Medicine: Research Advancements & Future Perspectives**". Editors: (P.R. Rauta, [Y.K.Mohanta](#), D. Nayak); Published October 28, 2019 CRC Press, Taylor and Francis Group (2019): [ISBN 9780367200503](https://doi.org/10.1007/978-0-306-97803-6) [Link](#)
2. Edited a book entitled "**Graphene Nanomaterials in Food, Health & Agriculture sectors**". Editors: ([Y.K. Mohanta](#), K. Biswas, S. Mahanta, M. Saravanan) CRC Press, Taylor and Francis Group (2024) [ISBN 9781032292366](https://doi.org/10.1007/978-1-092-29236-6) [Link](#)
3. Edited a book entitled "**Carbon-based nanomaterials in biosystems: biophysical interface at lower dimensions**" (K. Biswas, [Y.K.Mohanta](#), T. K. Mohanta, M. Saravanan) Elsevier Inc., with offices at 50 Hampshire St., 5th Floor, Cambridge, MA 02139, USA (2024) [ISBN: 9780443155086](https://doi.org/10.1016/B978-0-323-97804-3) [Link](#)
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2. [Y.K. Mohanta](#) and H.S. Dey (2011) Biofortification: Challenges for nutritional development. *Emerging Science* 4 (3): 8-10. (ISSN:0976-4100)
3. [Y.K. Mohanta](#) and C. Kausar (2013) Actinobacteria *Salinispora*: Gold from the sea. *Emerging Science*. (ISSN:0976-4100)
4. I. Dash and [Y.K. Mohanta](#) (2013) Algal Biofuels: A sustainable energy solution. *Emerging Science* 5(03):7-9. (ISSN:0976-4100)
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#### Abstracts:

1. [Y.K. Mohanta](#), S.K. Panda, K. Biswas, A. Tamang, J. Bandyopadhyay, D. De, R. Jayabalan, T.K. Mohanta & A.K. Bastia (2017). Bio-inspired synthesis of silver nano-particles from leaf extract of *Clusia collina* (Roxb.): Its potential antibacterial and anticancer activity. *Proceedings-* pp.78.
2. [Y.K. Mohanta](#), K. Biswas, J. Bandopadhaya, A. Tomang, D. De, D. Mohanta, S.K. Panda, T.K. Mohanta & A.K. Bastia (2016). *Abutilon indicum* (L.) Sweet leaf extracts assisted bio-inspired synthesis of electronically charged silver nano-particles with potential antimicrobial properties. *Proceedings-Nano-Bio-Con 2016*, pp.68.
3. [Y.K. Mohanta](#), K. Biswas, A. Tomang, J. Bandopadhaya, D. De, D. Mohanta & A.K. Bastia (2015). Green synthesis of bioactive silver nano-particles (AgNPs) by leaf extracts of *Garugapinnata* Roxb. and its antimicrobial activity. *Proceedings-Nano-Bio-Med 2015*, pp. 92.
4. [Y.K. Mohanta](#), K. Biswas, A. Tomang, J. Bandopadhaya, D. Mohanta & A.K. Bastia (2015). Bio-inspired synthesis of electronically charged silver nano-particles by *Cleistanthus collinus* leaf extract with potential antimicrobial properties. *Proceedings-Condensed Matter Days 2015*, pp. 61
5. [Y.K. Mohanta](#), L. Padhy, S.K. Panda & A.K. Bastia (2014). Antimicrobial activity of aboriginal plants used in the preparation of "Handia" among the Tribals of Northern Odisha. *Proceedings-Phytoresources-Utilization and Conservation*, pp. 40
6. [Y.K. Mohanta](#) & L. Padhy (2014). Ethno-medicinal evaluation of wild mushrooms from Similipal Biosphere Reserve, Odisha, India. *Proceedings-Phytoresources-Utilization and Conservation*, pp. 42
7. [Y.K. Mohanta](#) (2013). Actinobacterial Diversity of Bhitarkanika Mangrove Ecosystem: Sustainable use as potential drug candidate. *Proceedings-Conserving Biodiversity for Sustainable Development*, pp.84
8. [Y.K. Mohanta](#) & S. Das (2012). Antimicrobial and antioxidant activity of marine Actinomycetes from Odisha coast, India. *Proceedings-Utilization of microbes for sustainable development*, pp. 70
9. [Y.K. Mohanta](#), L.P. Padhi, G. Sahoo, S.K. Dutta, & S.K. Panda (2012). Bacterial flora of Indian chameleon (*Chamaeleo zeylanicus*, Laurenti). *Proceeding-Current Trend of Wildlife Research in India with special reference to Herpetology*, pp. 88



10. Y.K. Mohanta, R. N. Rout, S. Satapathy & A. Mohapatra (2008). Preliminary study on Plant Biodiversity in Lulung forest of Similipal Biosphere Reserve. Proceedings –Botanical Researches: Present scenario& Future prospect, pp.91

### WORK SHOP/COURSES/FDP ORGANIZED

1. **Workshop on “Basics of Scientific Writings”** held on September and October 2023 at the Department of Applied Biology, University of Science and Technology Meghalaya, India. ( **As Convenor**)
2. **HANDS-ON TRAINING ON MICROBIOLOGICAL TECHNIQUES AND QUALITY** held on 15<sup>th</sup> and 16<sup>th</sup> September 2022 at the Department of Applied Biology, University of Science and Technology Meghalaya, India. ( **As organizing secretary**)

### WORK SHOP/COURSES/FDP ATTENDED (As Resource person)

1. Invited Speaker for the National Level Online Faculty Development Program on “**Current Trends and Innovations in Biological Sciences**” Chettinad Academy of Research and Education, Kelambakkam, Chennai on 2<sup>nd</sup> September 2022.

### WORK SHOP/COURSES/FDP ATTENDED

1. FDP on hands-on Training on “**LMS Moodle**” on 3<sup>rd</sup> to 10<sup>th</sup> September 2022 at the University of Science and Technology Meghalaya, India.
2. FDP on “**INTELLECTUAL PROPERTY RIGHTS**” organized by Intellectual property office, India on 9<sup>th</sup> September 2022.
3. Clarivate-**JOURNAL CITATION REPORTS (JCR) CERTIFICATION SERIES-2022** held on 10<sup>th</sup> August 2022.
4. Online Weeklong FDP on “**E-CONTENT DEVELOPMENT**” Organized by TLC, Tezpur University from 4<sup>th</sup> to 8<sup>th</sup> April 2022.
5. **UGC-HRDC** FDP on “**PROFESSIONAL ETHICS AND MORAL VALUES IN QUALITY EDUCATION AND RESEARCH**” from 21<sup>st</sup> to 26<sup>th</sup> October 2021 at Jai Narain Vyas University, Rajasthan, India (Online mode).
6. E-workshop cum Discussion forum on “**HIGH-END CHARACTERIZATION OF MICRO-ALGAE: OVERCOMING THE TECHNOLOGICAL BARRIERS**” from 3<sup>rd</sup> to 4<sup>th</sup> March,2021 at The Energy and Resources Institute, New Delhi.
7. Certificate course on “**HPLC-MASS TECHNOLOGY**” funded by **DST-DPRP** organized from 15<sup>th</sup> to 18<sup>th</sup> May 2019 at HPLC-MASS Laboratory, Department of Chemistry, Karunya Institute of Technology and Sciences, Coimbatore-641114, TamilNadu, India.
8. Short-term course on “**FERMENTATION AND ENZYME TECHNOLOGY**” under **TEQIP-II** held from 1<sup>st</sup> February to 5<sup>th</sup> February 2013 at the Department of Biotechnology, College of Engineering and Technology, BPUT, Bhubaneswar, Odisha, India.

### SEMINARS/CONFERENCES ATTENDED

1. International conference on “**Microbiological research: Current challenges and future prospects**” during January 9<sup>th</sup>-11<sup>th</sup>, 2024. (**Oral presentation**) at Bharathidasan University, Tiruchirapalli, Tamilnadu.
2. International Symposium on “**Advances in Algal Research**” during June 12<sup>th</sup>-14<sup>th</sup>, 2023. (**Oral presentation**) at Indian Institute of Technology Guwahati.

3. International Seminar on “**Advances in Entrepreneurial Botany: Entrepreneurship Opportunities from Plant Resources for Sustainable Development**” during October 27th- 29th, 2022. (Oral Presentation) at University of Science and Technology Meghalaya.
4. International symposium on “**Water Sustainability: Challenges, Technologies and Opportunities**” held on 22<sup>nd</sup> to 25<sup>th</sup> March, 2021 at Amrita ViswaVidyapitham, Kerala, India. (Online)
5. National seminar on “**Emerging Trends in Plant Science Research: Challenges and Opportunities**” held on 22<sup>nd</sup> to 23<sup>rd</sup> March, 2017 at PG Department of Botany, North Orissa University, Takatpur, Baripada, Odisha, India. (Oral presentation)
6. International conference on “**Nanocomputing and Nanobiotechnology-2016**” held on 03-05 October, 2016 at MaulanaAbulKalam Azad University of Technology, WestBengal, India. (Oral presentation)
7. International conference on “**Nanotechnology for Biological and Biomedical Applications-2015**” held on 01-04 December, 2015 at Indian Institute of Technology, Mumbai, India. (Poster presentation)
8. National seminar on “**Condensed Matter Days-2015**” held on 27<sup>th</sup> to 29<sup>th</sup> August, 2015 at Department of Physics, Visva-Bharati, Santiniketan, West Bengal, India. (Poster presentation)
9. National seminar on “**Phytoresources: Utilization and Conservation**” held on 24<sup>th</sup> to 25<sup>th</sup> March, 2014 at PG Department of Botany, North Orissa University, Takatpur, Baripada, Odisha, India. (Oral presentation)
10. International conference on “**Conserving Biodiversity for Sustainable Development**” held on 16<sup>th</sup> to 18<sup>th</sup> August, 2013 at Department of Biotechnology and Biomedical Engineering, National Institute of Technology, Rourkela, Odisha, India. (Oral presentation)
11. One day seminar on “**Conservation of Biodiversity**” held on 11th January 2013 at Department of Life Science, National Institute of Technology, Rourkela, Odisha, India.
12. PranakrushnaParija Memorial National Conference on “**Recent Advances in Plant Biotechnology**” held on 22<sup>nd</sup> & 23<sup>rd</sup> December, 2012 at Dept. Of Botany, Ravenshaw University, Cuttack, Odisha, India.
13. National seminar on “**Utilization of Microbes for Sustainable Development**” held on 14<sup>th</sup>&15<sup>th</sup> December, 2012 at Dept. of Microbiology, CBSH, Orissa University of Agriculture and Technology, Odisha, India.
14. National seminar on “**Botanical Researches: Present Scenario & Future Prospect**” held on 29<sup>th</sup>and 30<sup>th</sup>January, 2008 at Government college of Science, Raipur, C.G., India. (Oral Presentation)
15. National seminar on “**Biotechnology: Prospects and Potential in Orissa**” held on 20<sup>th</sup> October, 2006 at Fakir Mohan University, Balasore, Odisha, India.

## MEMBERSHIPS

- Life Member Microbiologist Society, India (MS/LM/681)
- Life Member Indian Science Congress Association (L41741)
- International Natural Product Sciences Taskforce ([www.inpst.net](http://www.inpst.net))

## HOBBIES/EXTRACURRICULAR ACTIVITIES

- Nature photography (Wildlife & Landscape photographer)
- Adventure, Trekking
- Social and Promotional activities for empowering society as well as conservation of nature and wildlife biodiversity.

## INTERNATIONAL COLLABORATIONS

1. Chev. Prof. Renald Blundell (University of Malta)
2. Prof. Walter H.M.L. Luyten (KU Leuven, Belgium)
3. Prof. Majid Sharifi-Rad (University of Zabol, Iran)
4. Prof. Amra Bratovic (University of Tuzla, Bosnia and Herzegovina)
5. Dr. Awdhesh Kumar Mishra (Yeungnam University, South Korea)
6. Dr. Hamed Barabadi (Shahid Beheshti University of Medical Sciences,Iran)
7. Prof. Hans-Uwe Dahms (Department of Biomedical Science and Environmental Biology, KMU - Kaohsiung Medical University, Kaohsiung 80708, Taiwan)
8. Prof. Jiang Shiou Hwang (Institute of Marine Biology, National Taiwan Ocean University, Keelung 20224, Taiwan)

## NATIONAL COLLABORATIONS

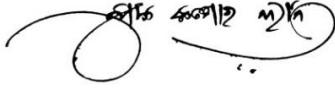
1. Prof. Saravanan Muthupandian (Saveetha University, Chennai)
2. Prof. B. Jebasingh (Karunya University, Coimbatore, Tamilnadu)
3. Dr. Kunal Biswas (Sathyabama Institute of Science and Technology, Chennai)
4. Dr. Pradipta Ranjan Rauta (AIPH University, Bhubaneswar, Odisha)
5. Dr. Hemen Sarma ( Bodoland University, BTR, Assam)

## PERSONAL INFORMATION

NAME	:	YUGAL KISHORE MOHANTA
FATHER'S NAME	:	JUDHISTHIR MOHANTA
MOTHER'S NAME	:	SHANTILATA MOHANTA
DATE OF BIRTH	:	29 <sup>th</sup> SEP 1987
PERMANENT ADDRESS	:	AT-SINGARPUR, PO-MATIAGARH, VIA- JASHIPUR, DIST: MAYURBHANJ, ODISHA, INDIA, PIN: 757091
NATIONALITY	:	INDIAN
RELIGION	:	INDIAN
SEX	:	MALE
MARITAL STATUS	:	MARRIED
LANGUAGES KNOWN	:	ODIYA, HINDI, BENGALI, ENGLISH

## DECLARATION

I hereby declare that all information given are true, complete and correct to best of my knowledge and belief.

A handwritten signature in black ink, appearing to read 'Y.K. Mohanta', with a large, stylized flourish on the left side.

(Y.K. Mohanta)