

Gagan Kumar Panigrahi, Ph.D

Current Position

Associate Professor
Department of Zoology
School of Applied Sciences
Centurion University of Technology and Management
Jatni, Khordha-752050, Odisha, India

Contact

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About

With a strong foundation in molecular biology, I have gained extensive research experience abroad (Republic of South Korea), focusing on advanced techniques such as confocal microscopy, protein purification, and biomolecules interaction studies. My work has allowed me to explore the intricate mechanisms underlying cellular processes, using cutting-edge methods to analyze protein structures and functions related to the field of Nonsense-mediated mRNA decay and resistance genes-based immunity in eukaryotes. This hands-on research has honed my technical skills and deepened my understanding of molecular dynamics.

In addition to my research expertise, I am passionate about teaching and mentoring students. I specialize in guiding them through complex life science topics, making advanced concepts more accessible and engaging. My commitment to their growth extends beyond the classroom, as I offer personalized counseling to help students plan their academic and career paths. Whether it's research aspirations or professional goals, I take pride in supporting students as they navigate their future endeavors.

Researcher Profile (as on 23-01-2025)

Panigrahi, Gagan Kumar

Centurion University of Technology and Management, Paralakhemundi, India 57216315001

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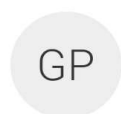
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Gagan Kumar Panigrahi

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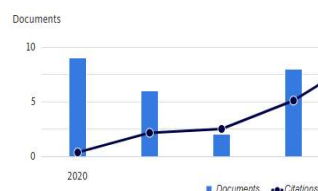
(Panigrahi, Gagan Kumar)

Edit

Cited by

	All	Since 2020
Citations	611	597
h-index	15	15
i10-index	19	19

Document & citation trends



Web of Science Core Collection metrics

12 H-Index
346 Sum of Times Cited
31 Publications
254 Citing Articles

Identifiers

Published names

Organizations

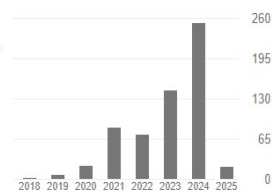
Subject Categories

Web of Science ResearcherID: ABG-3687-2020

Panigrahi, Gagan Kumar Panigrahi, G. K.

Centurion University of Technology & Management
Myongji University

Plant Sciences; Biochemistry & Molecular Biology; Chemistry; Biotechnology & Applied Microbiology; Pharmacology & Pharmacy



Abroad Research Experience

Myongji University, Republic of South Korea (World Rank: 1484). Supervisor: Prof. Sang Hyon Kim (Professor, Division of Biosciences and Bioinformatics, Myongji University, Republic of South Korea) (2013 - 2018).

Publication: Jung HW, Panigrahi GK, Jung G-Y, Lee YJ, Shin KH, Sahoo A, Choi ES, Lee E, Kim KM, Yang SH, Jeon JS, Lee SC, and Kim SH. (2020). PAMP-triggered immunity involves proteolytic degradation of core nonsense-mediated mRNA decay factors during early defense response. The Plant Cell 32(4): 1081-1101. (IF: 12.08)

Teaching Experience

- Associate Professor: Department of Zoology, School of Applied Sciences, Centurion University of Technology and Management, Odisha since 01-04-2023
- Assistant Professor: Department of Zoology, School of Applied Sciences, Centurion University of Technology and Management, Odisha from 02-03-2020 to 31-03-2023
- Assistant Professor: Department of Zoology, Regional Institute of Education, Bhubaneswar, Odisha from 20-07-2018 to 30-04-2019
- P.G.T Biology: Regional Institute of Education, Bhubaneswar, Odisha from 24-07-2012 to 30-04-2013

Awards and Recognitions

- Qualified CSIR-UGC NET (Life Sciences), with All India Rank of 30.
- Qualified Graduate Aptitude Test in Engineering in Life Sciences with All India Rank of 225, 98.25 percentile.
- Qualified CTET (CENTRAL TEACHER ELIGIBILITY TEST) for Teachership.
- Qualified Orissa State Talent Search Examination conducted by Govt. of Orissa, India.
- Awarded Best Researcher Award by DKIRF Internationals.
- Awarded Eminent Achiever Award: (Honorary Provost Award by Prof. Radhakant Padhi, IISC Bangalore), Centurion University of Technology and Management, Odisha.
- Awarded Certificate of Excellence: Centurion University of Technology and Management, Odisha.

Research Focus

Nonsense-mediated mRNA decay (NMD) and epigenetic immune response in Eukaryotes

Projects Grant

Seed money grant from Centurion University of Technology and Management, Odisha: Studies on Nonsense-mediated mRNA decay

Research Themes

1. Messenger RNA surveillance (Nonsense-mediated mRNA decay) and differential gene expression towards robust immune response in model systems including *Arabidopsis thaliana* and *Danio rerio* (Zebrafish).
2. Studies on the role of mRNA surveillance factors during abiotic stress (pH, salinity and heavy metals) in Zebrafish.
3. Environmentally benign nanoformulations for boosting NMD-coupled response in *Arabidopsis* and Zebrafish.
4. NMD surveillance in response to green-synthesized nanoparticles towards transcriptional regulation of immune receptors in Zebrafish and *Arabidopsis*.
5. Virtual screening and identification of small molecule modulators against the NMD proteins.

Research Guidance

- Rutupurna Das (2021, Ph.D Research)
- Sanjoy Majumder (2022, Ph.D Research)
- Sasmita Jena (Co-Supervisor, 2022, Ph.D Research)
- Aradhana Satapathy (2024, Ph.D Research)
- 40 M.Sc dissertation projects (2020-2025)

Academic courses (B.Sc, M.Sc, Ph.D)

- CUTM 2846: Genetics and Molecular Biology (Ph.D Course work)
- CULS 2561: Cell Signalling and Immunology
- CUTM 1454: Genetics and Epigenetics
- CUTM 1438: Bioanalytical Techniques
- CUTM 1448: Fish Processing and Value Addition
- CUTM 1452: Animal Biotechnology
- CUTM 2379: Advanced Sustainable Aquaculture
- CUTM 1507: Molecular Biology
- CUTM 1500: Cell Biology
- CUTM 1497: Non Chordates I

Administrative role

- CBCS Coordinator
- Time-table Coordinator
- Admission Coordinator
- Alumni Coordinator

Selected Publications (SCI/PUBMED), Patents and Reviewer Assignments

Selected Journal list of Publications (Journal list)

The Plant Cell (IF: 12.08)	Journal of Cleaner Production (IF: 9.8)	Biochemical Engineering Journal (IF: 3.7)	Biophysical Chemistry (IF: 3.3)
Preparative Biochemistry and Biotechnology (IF: 2.4)	Physiological and Molecular Plant Pathology (IF: 2.8)	Advances in Traditional Medicine (IF: 1.8)	Plant Physiology Reports (IF: 1.5)
Journal of Plant Biochemistry and Biotechnology (IF: 1.7)	Nanotechnology for Environmental Engineering (IF: 5.8)	Molecular Biotechnology (IF: 2.6)	Pathology, research and practice (IF: 2.9)
Colloids and Surfaces A (IF: 4.9)	Journal of Molecular Liquids (IF: 5.3)	Composite Communications (IF: 6.5)	Flat Chem (IF: 5.9)

Patents (Published and Granted)

1. A system for synthesizing ZnO-ZnFe₂O₄ nanoparticles and investigating their role in the waste water remediation. (South Africa Patent)
2. A system for enhancing plant immunity and plant growth by using fabricated ZnO–ZnFe₂O₄ nanoparticles. (South Africa Patent)
3. A composition and method for providing resistance against pathogen infection and drought stress in *Arabidopsis*. (South Africa Patent)
4. A system for analyzing infection with *Pseudomonas syringae* by targeting cochaperones containing a J-domain. (Germany Patent)

Reviewer Assignments (Journal list)

Scientific Reports (IF: 3.8)	Transgenic Research (IF: 2.7)	Plant Physiology Reports (IF: 1.5)	Journal of Herbal Medicine (IF: 3.9)
Environmental and Experimental Botany (IF: 4.5)	Frontiers in Genetics (IF: 2.8)		