



Kandati Kusuma

Research Scholar

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About me

I am an experienced research professional with a background in the life sciences, committed to advancing medical knowledge and improving healthcare outcomes through research. My passion lies in using data-driven approaches to explore the complexities of human health and disease.

Education

Ph.D. in Biotechnology **Apr 2022 - Present**

Sri Padmavati Mahila Visvavidyalayam, Tirupati

Masters of Science in Biotechnology – 80% **Jun 2016 - Jul 2021**

Sri Padmavati Mahila Visvavidyalayam, Tirupati

Research Experience

1. **Project trainee** **Jul 2021- Apr 2022**

Dr. Buddolla's Institute of Lifesciences, Tirupati

Major accomplishments

- ✓ Learned various laboratory techniques such as PCR, DNA extraction, AGE, PAGE, Western blot, and bacterial identification.
- ✓ Developed expertise in using microscopy and other imaging techniques to study microorganisms.
- ✓ Assisted in the design, execution, and analysis of research projects in the field of microbiology and molecular biology.
- ✓ Collaborated with other trainees to develop and present master's projects.
- ✓ Gained experience in writing scientific reports and presenting research results.
- ✓ Presented research findings in the form of technical papers, poster presentations, and seminars.
- ✓ Developed an understanding of the fundamentals of nanotechnology, including particle synthesis, processing, and characterization.
- ✓ Learned proper safety protocols for handling mice and zebrafish of all sizes, breeds, and species.

2. **Internship** **Dec 2020 – Jul 2021**

Dr. Buddolla's Institute of Lifesciences, Tirupati

Major accomplishments

- ✓ Isolation and screening of probiotic microorganisms
- ✓ Isolation, production, and partial purification of bacteriocin
- ✓ In vivo analysis using zebrafish
- ✓ Antioxidant activity and ROS scavenging

3. **Intern** **May 2019 - Jun 2019**

S.L.S Cell Cure Technologies, Hyderabad

1-month experience of training in various Molecular biology Techniques

4. **Intern** **Jun 2020 - Aug 2020**

CSIR, Summer Research Training Program, online coordinated by CSIR-NEIST, Jorhat.

Publications

- 2024** **Kusuma Kandati**, Sai Manogna Kotakadi, Deva Prasad Raju Borelli, John Sushma Nannepaga and Buddolla Viswanath. "Role of probiotics in mitigating cisplatin-induced toxicity in a rat model" *Biotechnology Reports* (Under review-2024)
- 2024** Sai Manogna Kotakadi, Manpreet Jivin Bangarupeta, **Kusuma Kandati**, Deva Prasad Raju Borelli, Jaheera Anwar Sayyed, Mannur Ismail Shaik, John Sushma Nannepaga. "Biosynthesized MgONPs using *Syzygium cumini* seed extract: Characterization, in vitro antioxidant and anti-microbial activity" *Biotechnology reports* (2024).
- 2024** **Kandati, Kusuma**, John Sushma Nannepaga, and Viswanath Buddolla. " Role of Molecular Biomarkers in the Diagnosis of Fungal Diseases using nanomaterial-based sensing platforms. In *Recent Developments in Nanomaterial-based Sensing of Human Pathogens*. Academic Press (2024).
- 2023** **Kandati, Kusuma**, Ankireddy Seshadri Reddy, John Sushma Nannepaga, and Viswanath Buddolla. " The Influence of Probiotics in Reducing Cisplatin Toxicity in Zebrafish (*Danio rerio*)" *Current Microbiology*.
- 2022** **Kandati Kusuma**, Praveen Belagal, John Sushma Nannepaga, and Viswanath Buddolla. "Role of probiotics in the management of cervical cancer: An update." *Clinical Nutrition ESPEN*.
- 2021** **Kandati Kusuma**, Praveen Belagal, Viswanath Buddolla, & Sai Gopal. "Lessons learned from the first pandemic of the 21st century, global experience, recommendations, and future directions". In *Pandemic Outbreaks in the 21st Century* (pp. 1-9). Academic Press (2021).
- 2021** **Kandati Kusuma**, Vijay Paul, & Viswanath Buddolla. "Middle East respiratory syndrome: outbreak response priorities, treatment strategies, and clinical management approaches". In *Pandemic Outbreaks in the 21st Century* (pp. 111- 122). Academic Press (2021).

Awards/Honours

- Received **Andhra Pradesh State Government Best Student of the year-2023** award from the Chief Minister.
- Received **1st prize for oral presentation** at The International Conference on Global Trends in Applied Sciences, Medical, and Health Sciences organized by REVA University.
- Received **Best Presentation award** for presenting an oral talk on Exploring the Protective Effects of Probiotics Against Cisplatin-Induced Toxicity in Zebrafish (*Danio rerio*) at International Conference on Applications of Millets and Probiotics on Cancer Therapy and Management, organized B. S. Abdur Rahman Crescent Institute of Science and Technology, in association with Purdue University, USA on 30th & 31st January 2024
- Received **Best Presentation award** for presenting an oral talk on "A Novel Approach for Overcoming Antibiotic Resistance through Tamarindus indica Seed Extract Mediated Polyphenol Functionalized Magnesium Oxide Nanoparticles with Possible Molecular Mechanisms at the International Conference on BioTech-MicroCon: Shaping the sustainable future" Organized by SPMVV, 2023.
- The findings of our publication titled "The Influence of Probiotics in Reducing Cisplatin Toxicity in Zebrafish (*Danio rerio*)" have been published as **Current Science Reports** in the issue of May 10, 2023.

Symposiums/Conferences

- International Conferences : 8
- Workshops : 8

References

Prof. N. John Sushma

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Declaration

I, solemnly declare that the above information provided is true to the best of my knowledge and I bear the responsibility for correctness.

(Kandati Kusuma)