Rout George Kerry

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Career Objective:

To make a mark in the field of Biotechnology, which give me enough, scope and thrill to prove my worth apart from Growth Avenue.

Education:

2015-2016 **Regional Medical Research Center, Utkal University, Pre-Ph.D. Biotechnology**

2012-2014 **Roland Institute of Pharmaceutical Sciences, Berhampur University**
M.Sc. Biotechnology (80.25% With Distinction)

2009-2012 **Academy of Management Information & Technology, Utkal University**
B.Sc. Biotechnology (61% With Distinction)

Work Experience:

2018-Present ***Research Fellow*** at Post-Graduation Department of Biotechnology, Utkal University, Bhubaneswar, India. Supervisor: Dr. Sabuj Sahoo.
Project: *Evaluation of bioactive terpenoid and flavonoid based silica nanoparticles against type-II diabetes and associated nephropathies*.

2016-2018 ***Lecturer*** at the Post Graduate department of Biotechnology, Academy of Management & information Technology, Bhubaneswar, India.

2015-2016 ***Technical Sales Executive*** at Biogenuix Medsystem Pvt. Ltd. New Delhi, India.

2014-2015 ***Laboratory Instructor*** at Post Graduate department of Biotechnology, Academy of Management & information Technology, Bhubaneswar, Odisha.

2012-2014 ***M.Sc. Thesis project*** at Roland Institute of Pharmaceutical Sciences, Berhampur University, Berhampur, India. Supervisor: Dr. Koustava Kumar Panda
Project: *Green synthesis of silver and zinc nanoparticles their biological characterization.*

2009-2012 ***B.Sc. Thesis project*** at Academy of Management Information & Technology, Utkal University, Bhubaneswar, India. Supervisor: Dr. Sushanto Gouda.
Project: *Extraction and Characterization of UV fluorescent pigments from Pseudomonas fluorescence for environmental sustainability.*

Mentoring and Teaching:

2016-2018 ***Supervisor***, Graduate and Undergraduate Students Gyana Prakash Mahapatra, Ashutosh Pradhan, Lipun Kumar Pradhan, Manas Ranjan Sahoo and Srichandan Rath.

2014-2018 ***Research Mentor and Classroom Teacher***, Post Graduate department of Biotechnology, Academy of Management & information Technology, Bhubaneswar, India.

Technical Knowledge:

- **Instrument Handled:** Inverted Microscope, Fluorescent Microscope, Spectrophotometer, Cell counter, Cooling Centrifuge, Electrophoresis Units, Autoclave, Hot air oven, Centrifugation Machine, Spectrophotometer, UV Transilluminator, Laminar air flow and pH meter, Thermal cycler.
- **Microbial Techniques:** Sterilization, Media Preparation, Culturing methods, Bacterial growth curve etc.
- **Molecular Techniques:** Isolation of DNA, Polymerase chain reaction, Agarose gel electrophoresis, Polyacrylamide gel electrophoresis (PAGE), RFLP, Restriction endonuclease digestions of bacterial DNA.
- **Immunological Techniques:** ELISA, Western blotting, Immunocytochemistry.
- **Biochemistry:** Protein estimation, Effect of PH and temperature on enzyme activity etc.

Training Programs:

- Short term course on “Food Microbiology” from Medallion Institute of Bioscience Bhubaneswar from 17.05.2010 to 01.06.2010.
- Short term course on “Fermentation” from Medallion Institute of Bioscience, Bhubaneswar from 17.08.2010 to 27.08.2010.
- Short term course on “Biodiesel Production and Phyotochemical Analysis” from Kalinga Plant Resource Center Pvt. Ltd, Samantarapur, Bhubaneswar.
- Short term course on Skill Development Program on Biotechnology conducted by Micro, Small and Medium Enterprises Development Institute, Cuttack at Tamando from 15.05.2012 to 29.05.2012

Workshop and Conference Participated:

- National Workshop on Multifunctional Nanomaterials. Organized by Department of Physics, Institute of Technical Education & Research, S’O’A University, Bhubaneswar, Orissa.
- Recent Research Methodologies and Instrumentation Techniques on Chemical and Bio-Medical Engineering (RRMCBME-14). Organized by Department of Chemical Engineering and Department of Biomedical Engineering, National Institute of Technology, Raipur, Chhattisgarh.
- National conference on Interdisciplinary sciences – Key of Novel Innovations. Organized on occasion of the 14th Odisha Bigyan Congress under the auspices of the Indian Science Congress Association.
- National Seminar on "Current trends of animal science research in India. Bhubaneswar, P.G Dept of Zoology, North Orissa University, Baripada, Orissa.

Publications:

Research Publications:

- Panigrahi, Bijayananda, Rohit Kumar Singh, Uday Suryakant, Sourav Mishra, Akhilesh A. Potnis, Atala B. Jena, **Rout George Kerry**, Hema Rajaram, Sunil K. Ghosh, and Dindyal Mandal. "Cyclic peptides nanospheres: A '2-in-1'self-assembled delivery system for targeting nucleus and cytoplasm." European Journal of Pharmaceutical Sciences (2022): 106125.
- Rout JR, **Rout George Kerry**, Panigrahi D, Sahoo SL, Pradhan C, Ram SS, Chakraborty A, Sudarshan M (2019). Biochemical, molecular, and elemental profiling of Withania somnifera L. with response to zinc stress. *Environmental Science and Pollution Research*, 26(4):4116-4129. doi: 10.1007/s11356-018-3926-6.
- Rout JR, **Rout George Kerry**, Dash L, Nayak SR, Sahoo SL (2017). Anatomical and biochemical aspects of Thevetia peruviana L.: A commonly planted roadside tropical shrub of Bhubaneswar, Odisha. *International Journal of Pharmacy and Pharmaceutical Sciences*, 9(5), 051-059.
- Thaoti P, **Rout George Kerry**, Gouda S, Das G, Pramanik K, Thaoti H, Patra JK (2016). Photo-mediated green synthesis of silver and zinc oxide nanoparticles using aqueous extracts of two mangrove plant species, Heritiera fomes and Sonneratia apetala and investigation of their biomedical applications. *Journal of Photochemistry & photobiology, B: Biology*, 163 311-318.

Review Publications:

- Ukhurebor, Kingsley Eghonghon, Robert Birundu Onyancha, Uyiosa Osagie Aigbe, Gladys UK-Eghonghon, **Rout George Kerry**, Heri Septya Kusuma, Handoko Darmokoesoemo, Otolorin Adelaja Osibote, and Vincent Aizebeoje Balogun. "A Methodical Review on the Applications and Potentialities of Using Nanobiosensors for Disease Diagnosis." BioMed Research International 2022 (2022).
- Hossain, Akbar, Milan Skalicky, Marian Brestic, Subhasis Mahari, **Rout George Kerry**, Sagar Maitra, Sukamal Sarkar et al. "Application of Nanomaterials to Ensure Quality and Nutritional Safety of Food." Journal of Nanomaterials 2021 (2021).
- Meera Kumari, **Rout George Kerry**, and Jyoti Ranjan Rout (2021). The Pandemic COVID-19 and Its Positive Influences on the Environment. *Current World Environment* 16 (2): 492–505. https://doi.org/10.12944/CWE.16.2.15.
- **Rout George Kerry**, Ukhurebor KE, Kumari S, Maurya GK, Patra S, Panigrahi B, Majhi S, Rout JR, del Pilar Rodríguez-Torres M, Das G, Shin HS. A comprehensive review on the applications of nano-biosensor based approaches for non-communicable and communicable disease detection. Biomaterials Science. 2021.
- **Rout George Kerry**, GR Mahapatra, Maurya GK, Subasis M, Patra S, Das G, Patra JK, Sabuj S (2020) Molecular prospect of type-2 diabetes: Nanotechnology based diagnostics and therapeutic intervention. Reviews in Endocrine and Metabolic Disorders. https://doi.org/10.1007/s11154-020-09606-0
- **Rout George Kerry**, Das G, Golla U, Rodriguez-Torres MP, Shin H, Patra JK (2020) Engineered probiotic and prebiotic nutraceutical supplementations in combating non-communicable disorders: A review. Current Pharmaceutical Biotechnology. DOI : 10.2174/1389201021666201013153142

- Gouda S, **Rout George Kerry**, Das A, Chauhan NS. (2020 Oct 3) Wildlife forensics: A boon for species identification and conservation implications. Forensic Science International.110530.
- Mondal A, Bose S, Banerjee S, Patra JK, Malik J, Mandal SK, Kilpatrick KL, Das G, **Rout George Kerry**, Fimognari C, Bishayee A. (2020) Marine Cyanobacteria and Microalgae Metabolites—A Rich Source of Potential Anticancer Drugs. Marine Drugs. Sep;18(9):476.
- Patra S, **Rout George Kerry**, Maurya GK, Panigrahi B, Kumari S, Rout JR. (2020) Emerging molecular prospective of SARS-CoV-2: Feasible nanotechnology based detection and inhibition. Frontiers in Microbiology. 11:2098.
- Satapathy S, Rout JR, **Rout George Kerry**, Thatoi H, Sahoo SL. (2020) Biochemical prospects of various microbial pectinase and pectin: An approachable concept in pharmaceutical bioprocessing. *Frontiers in Nutrition*. 7:117.
- Farzaei MH , Singh AK, Kumar R, Croley CR, Pandey AK, Coy-Barrera E, Patra JK, Das G, **Rout George Kerry**, Annunziata G, Tenore GC, Khan H, Micucci M, Budriesi R, Momtaz S, Nabavi SM, Bishayee A (2019). Targeting inflammation by flavonoids: Novel therapeutic strategy for metabolic disorders. *International Journal of Molecular Science*, 20(19), 4957; https://doi.org/10.3390/ijms20194957
- **Rout George Kerry**, Malik S, Redda YT, Sahoo S, Patra JK, Majhi S (2019). Nano-based approach to combat emerging viral (NIPAH virus) infection. *Nanomedicine*, 18:196-220. doi: 10.1016/j.nano.2019.03.004.
- **Rout George Kerry**, SM Sahoo, G Das, JK Patra (2018). Conventional and Nano-Based Therapy against Chronic Inflammatory Autoimmune Diseases. *Asian Journal of Biology*, 6 (3), 2456-7124.
- **Rout George Kerry**, Shin HS, Gouda S, Sahoo S, Das G, Fraceto LF, Patra JK (2018). Current advances in nanocarriers for biomedical research and their applications. *Artif Cells Nanomed Biotechnol*. 46(sup2):1053-1062. doi: 10.1080/21691401.2018.1478843
- **Rout George Kerry**, Gouda S, Sil B, Das G, Shin HS, Ghodake G, Patra JK (2018). Cure of tuberculosis using nanotechnology: An overview. *Journal of Microbiology*, 56(5):287-299. doi: 10.1007/s12275-018-7414-y.
- **Rout George Kerry**, Mahapatra GP, Patra S, Sahoo SL, Pradhan C, Padhi BK, Rout JR (2018). Proteomic and genomic responses of plants to nutritional stress. *Biometals*, 31(2):161-187. doi: 10.1007/s10534-018-0083-9.
- **Rout George Kerry**, Patra JK, Gouda S, Park Y, Shin HS, Das G (2018). Benefaction of probiotics for human health: A review. *J Food Drug Anal*, 26(3):927-939. doi: 10.1016/j.jfda.2018.01.002.
- Gouda S, **Rout George Kerry**, Das G, Paramithiotis S, Shin H, Patra JK (2018). Revitalization of plant growth promoting rhizobacteria for sustainable development in agriculture. *Microbiological Research*, 206, 131–140.
- **Rout George Kerry**, Padhiary S, Mahapatra GP, Rout JR (2017). Utility of underwater weenie life forms as voluminous organisms: A Review. *ILMU KELAUTAN: Indonesian Journal of Marine Sciences,* 23 (2), 99-108.
- **Rout George Kerry**, Das G and Patra JK (2017). Biodiversity and conservation of Mangrove ecosystem around the World. *Journal of Biodiversity and Conservation*, 2017, 1(1):9-15.

Book Chapters:

- Kingsley Eghonghon Ukhurebor, Ituabhor Odesanya, Silas Soo Tyokighir, **Rout George Kerry**, Akinola Samson Olayinka and Ayodotun Oluwafemi Bobadoye (October 6th 2020). Wireless Sensor Networks: Applications and Challenges [Online First], IntechOpen, DOI: 10.5772/intechopen.93660. Available from: https://www.intechopen.com/online-first/wireless-sensor-networks-applications-and-challenges
- Santosh Malik, Ananya Ghosh, **Rout George Kerry**, Jyoti Ranjan Rout. S.Keerthi Kumari (eds.). Nanotechnology in preclinical pharmacokinetics., Advances in Pharmaceutical Biotechnology, *Springer Nature*, ISBN:978-981-15-2194-2
- Ananya Ghosh, Suahanto Gouda, **Rout George Kerry**, Gitishree Das, Jayanta Kumar Patra. Chitra G. (eds.). Viral and non-viral drug delivery systems for medical health care: an overview. Green Nanoparticles, *Springer Nature*, ISBN-978-3-030-39245-1
- **Rout George Kerry**, Sabuj Sahoo, Gitishree Das, Jayanta Kumar Patra. Inamuddin et al. (eds.). Theranostic application of nanoparticulated system: Present and future prospects. *Biosensors Materials and Applications, Materials Research Foundations*, Vol. 47, pp 241-288, 2019 DOI: https://doi.org/10.21741/9781644900130-7
- **Rout George Kerry**, Jyoti Ranjan Rout, Gitishree Das, Leonardo Fernandes Fraceto, Spiros Paramithiotis, Jayanta Kumar Patra. S. Paramithiotis and J.K. Patra (eds.). Applications of nanotechnology in food and agriculture. Food Molecular Microbiology, *CRC Press Taylor & Francis Group*. ISBN 9781315110110
- Sushanto Gouda, **Rout George Kerry**, Gitishree Das, Jayanta Kumar Patra. D.K. Tripathi et al. (eds.). Synthesis of nanoparticles utilizing sources from the mangrove environment and their potential applications: An overview. Nanomaterials in Plants, Algae, and Microorganisms Concepts and Controversies: Volume 2, *Academic press an imprint of Elsevier.* https://doi.org/10.1016/B978-0-12-811488-9.01001-5
- Sushanto Gouda, **Rout George Kerry**, Dibyaranjan Samal, Gyana Prakash Mahapatra, Gitishree Das and Jayanta Kumar Patra. J.K. Patra et al. (eds.). Application of plant growth promoting rhizobacteria in agriculture. *Advances in Microbial Biotechnology*. ISBN 9781771886673
- Sabuj Sahoo, Sarmistha Sarangi, and **Rout George Kerry**. J.K. Patra et al. (eds.). Bioprospecting of endophytes for agricultural and environmental sustainability. *Microbial Biotechnology*. https://doi.org/10.1007/978-981-10-6847-8_19
- Sushanto Gouda, Suman Nayak, Shristy Bishwakarma, **Rout George Kerry**, Gitishree Das, and Jayanta Kumar Patra. J.K. Patra et al. (eds.). Role of microbial technology in agricultural sustainability. *Microbial Biotechnology*, https://doi.org/10.1007/978-981-10-6847-8_8
- **Rout George Kerry**, Sushanto Gouda, Gitishree Das, Chethala. N. Vishnuprasad, and Jayanta Kumar Patra. J.K. Patra et al. (eds.). Agricultural nanotechnologies: Current applications and future prospects. *Microbial Biotechnology*, https://doi.org/10.1007/978-981-10-6847-8_1
- **Rout George Kerry**, Pratima Pradhan, Dibyaranjan Samal, Sushanto Gouda, Gitishree Das, Han-Seung Shin, and Jayanta Kumar Patra. J.K. Patra et al. (eds.). Probiotics: The ultimate nutritional supplement. *Microbial Biotechnology*. https://doi.org/10.1007/978-981-10-7140-9_7
- **Rout George Kerry**, Sushmita Patra, Sushanto Gouda, Jayanta Kumar Patra, and Gitishree Das. J.K. Patra et al. (eds.). Microbes and their role in drought tolerance of

agricultural food crops. *Microbial Biotechnology*, https://doi.org/10.1007/978-981-10-7140-9_12

Edited Book Published

- Biotechnological advances for microbiology, molecular biology, and nanotechnology: An interdisciplinary approach to the life sciences. (2021) Editors: Jyoti Ranjan Rout, **Rout George Kerry**, Abinash Dutta, ISBN: 9781771889995, CRC Press Taylor and Francis, Ohio, United States. http://www.appleacademicpress.com/title.php?id=9781771889995

References:

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