

## FACULTY PROFILE



### **Dr. Rejish Kumar V.J**

Assistant Professor, Department of Aquaculture

Ph.D (Cochin University of Science and Technology)

Aquaculture Biotechnology

### **Contact details**



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Dr. Rejish Kumar VJ has more than fifteen years of research and nine years of teaching experience in Aquaculture Biotechnology and Aquatic Animal Health Management. He has worked on various aspects of recirculating aquaculture systems (RAS) and marine biotechnology for his Ph.D. degree. His doctoral research led to the optimization, validation, and commercialization of two patented nitrifying bioreactors. After completing his Ph.D., he joined Yeungnam University (South Korea) for postdoctoral research on the development of various probiotic bacteria for animal and human applications. Upon receiving the JSPS fellowship, he moved to Tokyo University of Pharmacy and Life Sciences (Japan), where he worked on the chemical and microbial analyses of a simulated hydrothermal vent system and the development of a mathematical model. He participated in the Southern Mariana Trough cruise to collect hydrothermal vent samples, conducted by the Japan Agency for Marine Earth Science and Technology (JAMSTEC), Japan. After successfully completing the project, he joined the Laboratory of Extremophiles at Tokyo University of Pharmacy and Life Sciences as a visiting scientist. After three years of research in Japan, he moved to the National Institute of Oceanography (NIO), CSIR, Goa, as Principal Investigator under the SERB, DST Young Scientist Scheme. In 2015, he joined KUFOS as an Assistant Professor in the Department of Aquaculture. His research areas include nitrification, probiotics, aquatic microbiology, and the effects of stress and pollutants on fish. He successfully established the Molecular Biology and Microbiology Laboratories in the Department of Aquaculture. His team has successfully sequenced and analyzed the complete mitochondrial genomes of freshwater fishes *Tor malabaricus*, *Horabagrus nigricollaris*, *Clarias dussumieri*, *Channa diplogramma*, *Carinotetraodon travancoricus*, and *Pristolepis rubripinnis*. Currently, his team is working on various aspects of microbial and biotechnological interventions in aquaculture, bioprospecting of mangrove-associated microbes, and the effects of micro/nanoplastics on fish health.

## **Teaching:**

- ❖ Introduction to Biotechnology and Bioinformatics
- ❖ Applied Biotechnology in Aquaculture
- ❖ Soil and Water Quality Management in Aquaculture
- ❖ Recirculating Aquaculture Systems
- ❖ Aquatic Animal Health Management and Quarantine
- ❖ Nutritional Requirements and Feeding Management
- ❖ Vitamins and Mineral Nutrition
- ❖ Lipid Nutrition

## **Research Areas:**

- Aquaculture Biotechnology
- Aquatic Microbiology
- Aquatic Toxicology
- Nitrification
- Probiotics
- Aquatic Animal Health Management

## **Key Management Roles:**

- NSS Programme Officer, KUFOS (26-05-2018 to 14/09/2023)
- Physical Education (ic), KUFOS (25-08-2022 to 25-09-2023)
- Sports Coordinator under youth affairs of AIU at KUFOS (6/01/2023 to present)
- Member, Scientific Strategy Board for Centre of Excellence in Microbiome (CoEM), KUFOS (20/03/2024 to present)
- Research Committee member, Faculty of Ocean studies (2022 to Present)

## **Publications:**

- Google Scholar: [Rejish Kumar V.J - Google Scholar](#)
- Research Gate: [V.J REJISH KUMAR | Professor \(Assistant\) | PhD | Kerala University of Fisheries and Ocean studies, Cochin | KUFOS | Aquaculture | Research profile \(researchgate.net\)](#)

### **Awards & Achievements:**

- **Young Scientist Fellowship**, SERB-DST, Government of India-2013
- **Visiting Scientist**, Tokyo University of Pharmacy and Life Science, Tokyo, Japan-2012
- **Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowship**, Japan-2010
- **Yeungnam University Postdoctoral Fellowship**, Republic of Korea-2009
- Qualified **NET for Lectureship in Life Sciences**, conducted jointly by CSIR and UGC 2001
- **Rejish Kumar V. J**, Shingo Kato and Akihiko Yamagishi (2016) won **Best Poster Award** for the work titled A flow through reactor system for simulating marine hydrothermal vents in **International Conference on 'Towards a sustainable blue economy: Production strategies and policies'** organized by Kerala University of Fisheries and Ocean studies & Nansen Environmental Research Centre (India), 4-6 February 2016, Radisson Blu. Kochi
- **Rejish Kumar V. J**, Chandhini S, Varsha C. Mohanan, Bushra Trumboo, Anvar Ali P. H, Rachel Fernandez (2019) won **Best Poster Award** for the work titled Transcriptome analysis of *Etroplus suratensis*: Identification of Growth, Reproduction and Immune-related genes and Microsatellite Markers, presented in **World Brackishwater Aquaculture Conference (BRAQCON 2019)** held at CIBA, Chennai on 23-25<sup>th</sup> January 2019
- Greeshma James, Sajeevan T P and **Rejish Kumar V J** (2024) won **Best Poster Award** for the work titled Exploring the antimicrobial, antioxidant and quorum quenching activities of actinobacterial isolates associated with mangroves in Ernakulam district in **International Conference on Frontiers in Marine Sciences (MARICON 2024)** held at School of Marine Science at Cochin University of Science and Technology, Lake Side Campus during 8-10 April 2024.

### **Ongoing Projects:**

- Development of Vaccine Against Tilapia Lake Virus (TiLV) And Cyprinid Herpes Virus -2 of Fish an Indian Aquaculture System. Department of Biotechnology, Govt. of India (21-24). Amount : 54.18 Lakhs (2021-24 as Co-PI)

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