Biodata



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Qualification	:	PhD
Field of Specialization	:	Fish Nutrition and Feed Technology
Experience (in years) in current position	:	11 Years

Completed projects:

Sl.No.	Title of the Project	Year	PI & Co- PI of the Project	Funds (in lakhs)	Funding Agency
1.	Establishment of cost efficient feeds for enhancing freshwater fish production	2016-17	Co-PI	398 lakhs	NADP
2.	Establishment of State Referral Laboratory for Fish Feed Testing and Quality Certification at Institute of Post Graduate Studies, TNJFU-OMR campus, Vaniyanchavadi, Chennai	2018-19	Co- PI	250.00	NADP

Current Projects:

Sl.No	Title of the project	Funding agency	Total Budget
1.	Effects of a novel selenium sources on growth performance, nutrient utilization and health status of Nile Tilapia, *Oreochromis niloticus*	Bentoli Agri Nutrition India Pvt Ltd	Rs. 3,50,750/-
2.	Development of Climate-Resilient Methyl Donor-Based Functional Feeds to Alleviate Physiological Stress in Tilapia through Nrf2 and p38 MAPK Pathways	CMRG	Rs. 28,83,365/-

Research publications :

1. Kavimugaraja, M., **Thangarani, A.J.,** Ranjan, A., Uma, A., Ferosekhan, S., Sriranjani, K., Christyraj, J.R.S.S., Venkatachalam, S., Felix, N. and Suman, T.Y., 2026. Effect of Dietary Hydroxy-Selenomethionine supplementation on Growth Performance, Antioxidant Status, and Gene Expression in Nile tilapia (Oreochromis niloticus). *Animal Feed Science and Technology*, p.116731.
2. Komuhi, N.B., Ranjan, A., Nazir, M.I., Felix, N., Prabu, E., Chidbaram, P., Kaliyamurthi, V., **Thangarani, A.J.** and Uma, A., Optimization of protein requirement of Channa striata larvae fed graded levels of protein diet. *Frontiers in Marine Science*, *13*, p.1785301.
3. Ramya, R., Ramila, R., **Thangarani, A.J.,** Shanmugam, S.A. and Kathirvelpandian, A., 2026. Novel Therapeutic and Diagnostic Applications of Microalgal Phycobiliproteins. In *Pigments from Microalgae Handbook–Volume III: Industrial and Functional Applications* (pp. 219-248). Cham: Springer Nature Switzerland.
4. Ramya, R., Shanmugam, S.A., Kathirvelpandian, A., Gopalakannan, A., **Thangarani, A.J.,** Mohamed, J.M.M., Ramila, R., Bhavya, E. and Balaganesan, M., 2026. Carbon source-mediated metabolic and bioprocess optimization for C-phycocyanin enrichment in Phormidium sp. A02 under two-phase static mixotrophic culture. *Bioprocess and Biosystems Engineering*, *49*(1), pp.81-98.
5. Prabu, E., Chidambaram, P., Felix, N., Uma, A., **Thangarani, A.J.,** Thiruvasagam, T. and Vijaysundardeva, G., 2025. Immunostimulation of Pacific white shrimp (Penaeus vannamei) through dietary NagroWall enhances resistance to Vibrio parahaemolyticus infection. *Journal of Invertebrate Pathology*, p.108523.
6. Sriranjani, K., Ranjan, A., **Thangarani, A.J.,** Binesh, A., Kavimugaraja, M., Balasundari, S. and Felix, N., 2025. Interactive Effects of Dietary Starch Levels and Exogenous α-Amylase on Growth, Digestibility, and Metabolic Responses in Channa striata Juveniles. Biology, 14(9), p.1237.
7. Ranjan, A., Kalaiselvan, P., Binesh, A., Venkatachalam, K., **Thangarani, A.J.** and Felix, N., 2025. Prospects and Potential of Electron Beam and Gamma Irradiation in Improving Nutritional Profile of Plant-Based Ingredients used in Aquafeed. *Journal of Food Composition and Analysis*, p.108200.
8. Kalaiselvan, P., Ranjan, A., **Thangarani, A.J.,** Felix, N. and Akamad, D.K., 2025. The Fate of Dietary Tryptophan in Fish: Unveiling Its Sources, Transport, Metabolism, and Multifaceted Impacts. *The Journal of Nutrition*.

9. **Thangarani, A. J.,** Felix, N., Suresh, A. V., Shanmugam, S. A., Kathirvelpandian, A., Suresh, E., Ramya, R., Ranjan, A., Prabu, E., & Suman, T. Y. (2025). Impact of selenium supplementation on antioxidant enzyme activity and liver gene expression in juvenile pangasius catfish (*Pangasius pangasius*). Journal of Fish Biology, 1–16. https://doi. org/10.1111/jfb.16036.
10. Vaishnav, A., Mehta, N.K., Hussain, S.A., Acharya, P.C., Biswal, S., Nath, H., Priyadarshini, M.B., **Thangarani, A.J.,** Pal, P., Singh, S.K. and Singh, N.S., 2024. Bromelain Excised Hydrolysates with Potent Bioactivity from *Bellamya bengalensis* Soft Tissues: Process Optimization and Characterization. *Journal of Agriculture and Food Research*, p.101595.
11. Kalaiselvan, P., Ranjan, A., Nazir, M.I., Suresh, E., **Thangarani, A.J.** and Malarvizhi, K., 2024. Effect of Different Early Weaning Diets on Survival, Growth, and Digestive Ontogeny of *Channa striatus* (Bloch, 1793) Larvae. *Animals: an Open Access Journal from MDPI*, *14*(19), p.2838.
12. **Thangarani, A.J.,** Felix, N., Suresh, A.V., Kathirvelpandian, A., Shanmugam, S.A., Ramya, R., Jeevagan, I.J.M.A. and Suman, T.Y., 2024. Impact of dietary selenium supplementation on growth performance, bioaccumulation, antioxidant capacity, and gene expression in GIFT strain of Nile Tilapia (*Oreochromis niloticus*). *Aquaculture International*, pp.1-26.
13. Ramya, R., Shanmugam, S.A., Kathirvelpandian, A., Gopalakannan, A., **Thangarani, A.J.,** Kaliyamurthi, V. and Balaganesan, M., 2024. Enhancement of C-phycoerythrin content by mixotrophic cultivation of *Phormidium sp*. isolated from the Indian coast. *Journal of Applied Phycology*, *36*(3), pp.1095-1104.
14. E. Prabu, C.B.T Rajagopalsamy, B. Ahilan,R. Santhakumar, **A. JemilaThangarani.,** 2017. Influence of biofloc meal and lysine supplementation on the growth performances of GIFT tilapia. *Journal of Entomology and Zoology Studies* 5 (5): 35-39
15. K R John, M R George, T.Iyappan, **A.J Thangarani,** M J P Jeyaseelan (2010). Indian isolates of white spot syndrome virus exhibit variations in their pathogenicity and genomic tandem repeats. Journal of Fish Diseases 33 (9):749-758.
16. John, K.R., George, M.R., Iyappan, T., **Thangarani, A.J.** and Jeyaseelan, M.P., 2006. S. 31. Temporal prevalence of White spot syndrome virus (WSSV) and its molecular variability in shrimp farms of Tamil Nadu coast. *Indian Journal of Virology*, *17*(2), pp.157-158.
17. G. Jeyesekaran, K. Thirumalai raj, R. Jeyasakila, **A. Jemilathangarani,** D. Sukumar and V. Abdul kadharjailani (2010). Rapid detection of *Salmonella enterica*serovars by multiplex PCR. World journal of Microbiology and Biotechnology 27(4):953-959.
18. G. Jeyesekaran, K. Thirumalai raj, R. Jeyasakila, **A. Jemilathangarani**, R. Karthiga and M. Luzi,(2010) Simultaneous detection of *Staphylococcus aureus* enterotoxin C-producing strains from clinical and environmental samples by Multiplex PCR assay in Annals of Microbiology 61(3): 585-590.

19. Jeyasekaran, G., Thirumalai Raj, K., JeyaShakila, R. **JemilaThangaranai, A.** and Sukumar, D., 2011. Multiplex polymerase chain reaction-based assay for the specific detection of toxin producing *Vibrio cholerae* in fish and fishery products. Applied Microbiol. Biotechnol. 90: 1111-1118.