ICAR- DIRECTORATE OF COLDWATER FISHERIES RESEARCH
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Scientist Profile

Name	Dimpal Thakuria
Designation	Senior Scientist (Biochemistry-AS)
Qualification	Ph.D
Email Address	Dimpal.Thakuria@icar.gov.in
Professional experience (Years)	12+ years
Area of Research Expertise	Synthetic biology
Google scholar link	https://scholar.google.com/citations?user=fBvR2dkAAAAJ&hl=en
ORCID ID	0000-0002-4434-0483

Awards/ Recognitions

1. Junior Research Fellowship (2006) by ICAR, New Delhi for pursuing M.V.Sc (Animal Biotechnology) at ICAR-IVRI, Izatnagar
2. ICAR-NET and ARS (2009)
3. Gold Medal Award by Zoological Society of India during National Seminar on "Strategies, Innovations and Sustainable Management for Enhancing Coldwater Fisheries and Aquaculture, held at ICAR-DCFR from 22-24 Sept. 2017
4. Best paper awarded during 11th Indian Fisheries and Aquaculture Forum Fostering organized by ICAR-CIFT, Kochi from 21-24 Nov. 2017
5. First Prize in poster presentation in international e-conference on "New generation vaccines and animal disease control strategies: roadmap for enhancement of animal and human health" organized by Department of Veterinary Microbiology, Veterinary college and research institute, Orathanadu, Tamil Nadu and Department of Veterinary Microbiology, C.V.Sc.& A.H. Pookode, Kerala, during 02-04 December 2020.

Publication (no.)	29
• **Research papers**	
• **Reviews**	02
Book Chapters	02
NCBI GenBank	50+

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Projects (Institutional/ External)

External:

1. Bio-engineered synthetic antimicrobial peptides as alternative to antibiotics for use in aquaculture (DBT funded)

Institutional:

1. Development of rapid assays for detection and identification of *Saprolegnia* species
2. Polymer based approach for in vitro transfection in fish cells
3. Development of fish viral peptide-based nano-system for intracellular delivery of biomolecules
4. Design and production of GnRH analog as an inducing agent for spawning in fish
5. Evaluation of antimicrobial activities of nano and polymer-based formulations against Saprolegniasis

Important 10 Publications (recent)

1. Khangembam Victoria Chanu, **Dimpal Thakuria**, Vinita Pant, Sweta Bisht, Ritesh Shantilal Tandel (2022). Development of multiplex PCR assay for species-specific detection and identification of *Saprolegnia parasitica*, Biotechnology Reports, 35: e00758,

2. Bhat, R. A. H., **Thakuria, D.**, Tandel, R. S., Khangembam, V. C., Dash, P., Tripathi, G., & Sarma, D. (2022). Tools and techniques for rational designing of antimicrobial peptides for aquaculture. Fish & Shellfish Immunology. 127: 1033-1050.

3. **Dimpal Thakuria**, Victoria C. Khangembam, Vinita Pant, Raja Aadil Hussain Bhat, Ritesh Shantilal Tandel, Amit Pande and Pramod Kumar Pandey. (2022). Anti-oomycete activity of Chlorhexidine gluconate: Molecular docking and in vitro studies. Front. Vet. Sci. 9:909570. doi: 10.3389/fvets.2022.909570

4. Raja Aadil Hussain Bhat, Victoria C. Khangembam, **Dimpal Thakuria**, Vinita Panr, Ritesh Shantilal Tandel, Gayatri Tripathi, Debajit Sarma (2022). Antimicrobial activity of an artificially designed peptide against fish pathogens. Microbiological Research. 260: 127039

5. RiteshShantilalTandel, Pragyan Dash, Raja AadilHussainBhat, **DimpalThakuria**, Paramita Banerjee Sawant, NityanandPandey, Suresh Chandra, Narinder Kumar Chadha (2021) Anti-oomycetes and immunostimulatory activity of natural plant extract compounds against Saprolegnia spp.: Molecular docking and in-vitro studies,Fish & Shellfish Immunology, 114 : 65-81

6. Tandel, R. S., Chanu, K. V., Hussain Bhat, R. A., Dash, P., Shah, T. K., & **Thakuria, D.** (2021). Morphometric and molecular identificationof *Argulus japonicus* (Thiele, 1900) in vulnerable Himalayan snow trout, *Schizothorax richardsonii* (Gray 1832).

Aquaculture Research, 52: 5943-6824.

7. Raja Aadil Hussain Bhat, **DimpalThakuria**, Maneesh Kumar Dubey, Ritesh Shantilal Tandel, Prakash Sharma, Victoria C. Khangembam, Pragyan Dash, Gayatri Tripathi, Debajit Sarma (2021). Lethal dose and histopathological alterations induced by *Aeromonas salmonicida* in experimentally challenged common carp, *Cyprinus carpio*, Microbial Pathogenesis, 158: 105110.

8. Raja Aadil Hussain Bhat, **Dimpal Thakuria**, Vinita Pant, Victoria C. Khangembam, Ritesh Shantilal Tandel, Neetu Shahi, Debajit Sarma, Gayatri Tripathi, Kishore Kumar Krishnani, Gopal Krishna (2020). Antibacterial and antioomycete activities of a novel designed RY12WY peptide against fish pathogens. Microbial Pathogenesis 149:104591

9. BS Yashwanth, MukundaGoswami, RajendranKoolothValappil, **DimpalThakuria**, AparnaChaudhari Characterization of a new cell line from ornamental fish Amphiprionocellaris (Cuvier, 1830) and its susceptibility to nervous necrosis virus. Sci Rep 10, 20051 (2020).

10. **Thakuria D**, Shahi N, Singh AK, Khangembam VC, Singh AK, Kumar S. (2017). Conformational analysis of a synthetic fish kisspeptin 1 peptide in membrane mimicking environments. PLoS One. 12(10): e0185892.

Other information's