



International Workshop on Aquaculture Medicine and Aquatic Animal Health Management in Asia-Pacific: Status, Constraints and the Way forward



International Workshop on Aquaculture Medicine and Aquatic Animal Health Management in Asia Pacific Status, Constraints and Way Forward [AQUAMAP25]		
January 16-18, 2025 Venue: Seminar Complex, CUSAT, Main Campus, Kalamassery, Kochi-22, Kerala, INDIA SCHEDULE (Indian Standard Time (IST/UTC+05:30))		
DAY/TIME	SESSION/TOPIC	SPEAKER
DAY 1		
January 16, 2025 Thursday		
08.00AM - 09.00AM	Registration	
09:30AM - 10:30AM	Inauguration/Opening Ceremony	Inauguration: Shri George Kurian Hon'ble Minister of State, Minority Affairs, and Fisheries, Animal Husbandry & Dairying Government of India
10:30AM - 11:00AM	Tea/Coffee break	Poster viewing and evaluation/ Networking
	Plenary Lecture 1	
11:00AM - 11:25AM	Transboundary Aquatic Animal Diseases: The Role of Trade and Aquaculture Biosecurity	Dr Eduardo M. Leano Network of Aquaculture Centres in Asia-Pacific (NACA)
	Session 1: Diseases in Aquatic Animals	Chair: Prof. Sophie St-Hilaire Professor of Aquatic Animal Health, City University of Hong Kong Co-Chair: Dr. A.S. Sahul Hameed Coordinator, Aquatic Animal Health Laboratory, C Abdul Hakeem College, Tamil Nadu
	Keynote address	
11:30AM - 11:50AM	Diseases in Aquaculture - Qualitative and quantitative assessment of disease burden in aquaculture	Dr. P.K. Sahoo Director-cum-ICAR National Professor, ICAR-CIFA
	Invited talks	
11:50AM - 12:05PM	1: Viral, bacterial, and fungal pathogens of Finfishes in the Asia – pacific	Dr Megha Bedekar Principal Scientist and Head, Aquatic Environment and Health Management, ICAR-CIFE
12:05PM -12:20PM	2: Viral, bacterial, and fungal pathogens of Crustacea	Dr. Subhendu Kumar Otta Principal Scientist, ICAR-CIBA
12:20PM - 12:35PM	3: Viral, bacterial, parasitic and fungal pathogens of Molluscs	Dr. N. K. Sanil Principal Scientist, ICAR-Central Marine Fisheries Research Institute



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12:35PM - 12:50PM	4: Protozoan and metazoan parasites in aquaculture	Dr. B. Santhosh Principal Scientist and Head, VRC, ICAR –CMFRI
12:50PM - 01:05PM	5: Diseases with unknown etiology (Nutritional, environmental)	Dr. S. R. Krupesha Sharma, Principal Scientist, ICAR –CMFRI
01:05PM - 01:30PM	Discussion	
01:30PM - 02:30PM	LUNCH BREAK	Poster viewing and evaluation/ Networking
	Session 2 Disease Diagnosis in Aquaculture	Chair: Dr. P.A. Loka Bharati Former Chief Scientist, Professor AcSIR, CSIR, National Institute of Oceanography Co-chair: Dr David Verner-Jeffreys Senior Scientist, Aquatic Animal Health, WorldFish
	Keynote address	
02:30PM - 02:50PM	Disease Diagnosis in Aquaculture - Practical Approaches to touch upon the grass root level health management	Dr. Iddya Karunasagar Senior Officer (Retd.), Food & Agriculture Organization of UN Emeritus Professor, Nitte University
	Invited talks	
02:50PM - 03:05PM	1: Assessment of environmental quality in disease diagnosis	Dr. P.K. Patil Principal Scientist & Chairman, PME & ITMU, ICAR-Central Institute of Brackishwater Aquaculture (CIBA)
03:05PM - 03:20PM	2: Assessment of clinical signs, internal and external gross anatomical and fine pathological changes in diagnosing diseases	Dr. Neeraj Sood Principal Scientist, ICAR-NBFGR
03:20PM - 03:35PM	3: Histology and ultra-structural studies: advancements of microscopy in disease diagnosis	Dr. T.V. Anilkumar Scientist G & Head of Division, Sree Chitra Tirunal Institute for Medical Sciences and Technology
03:35PM - 03:50PM	4: Nucleic acid and Antibody-based diagnostics in aquaculture: A Critical Evaluation	Dr. M. Shashi Shekhar Principal Scientist& Head, Aquatic Animal Health, and Environment Division, ICAR-CIBA
03:50PM -04:05PM	5: Changing paradigms in aquatic animal disease and evolving diagnostic techniques	Dr. K.V. Rajendran Principal Scientist and Head of Division (Retd.) Adjunct Professor, ICAR-CIFE
04:05PM - 04:20PM	6: Hematology and serology: practical solutions for rapid field-level diagnosis in aquaculture	Prof. Dr. R. Dinakaran Michael Former Dean of Life Sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS) & Dr. Parasuraman A.S. Humboldt Postdoctoral Research Fellow Thunen Institute of Fisheries Ecology
04:20PM - 04:50PM	Discussion	
04:50PM - 05:15PM	Tea/Coffee break	Poster viewing and evaluation/ Networking
05:15PM - 06:30PM	Panel discussion 1 Cell line development	Moderator: Dr. Iddya Karunasagar Senior Officer (Retd.), Food & Agriculture Organization of UN Emeritus Professor, Nitte University



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		Deputy Moderator: Dr. K.V. Rajendran Principal Scientist and Head of Division (Retd.) Adjunct Professor, ICAR-CIFE
	Application and potential uses of Fish Cell Lines	Dr. Sahul Hameed Coordinator, Aquatic Animal Health Laboratory, C Abdul Hakeem College, Tamil Nadu
	Status of finfish cell lines available in India and the prospects of employing them for studying viral aetiology in the Asia Pacific: Scientific and Legal issues	Dr. T. Rajaswaminathan Head of Division, Microbiology, ICAR-Central Institute of Fisheries Technology, Cochin.
	Cell lines from marine finfishes: Critical factors for consideration for developing normal cell lines and embryonic stem cells.	Dr. K. S. Sobhana Principal Scientist, ICAR-CMFRI
	Fish Cell Line Repositories in the Indian context: Establishment, Operation and Extension to support fish virus research in the Asia Pacific: Status, Constraints and Way forward.	Dr. Basdeo Kushwaha Principal Scientist & In Charge, NRFC ICAR-NBFGR
	Invertebrate cell lines in aquatic animal health management: Status, Constraints and the way forward.	Dr Jayesh Puthumana Assistant Professor, National Centre for Aquatic Animal Health (NCAAH), CUSAT
DAY 2	January 17, 2025 Friday	
	Plenary Lecture 2	
09:30AM - 09:55AM	Path to sustainability in aquaculture-based food production in Asia Pacific to feed the world: Socio-economics and governance	Dr. M. Vijay Gupta, Padma Sri awardee World Food Prize Laureate, Sunhak Peace Prize Laureate, Former Assistant Director General, WorldFish
	Session 3 Sustainable Aquaculture Production Systems in Practice	Chair: Dr. Indrani Karunasagar Director, UNESCO MIRCEN for Medical & Marine Biotechnology, Nitte University Co-chair: Dr. T. Rajaswaminathan Head of Division, Microbiology, ICAR-Central Institute of Fisheries Technology, Cochin.
	Keynote address	
10:00AM - 10:20AM	Sustainable Aquaculture Production Systems in Practice	Dr. Rohana Subasinghe Chief of Aquaculture (Retired), FAO-UN Co-founder and Director, Future Fish, UK
	Invited talks	
10:20AM -10:35AM	1: Operational concepts of sustainability – Adoption of extensive, semi-intensive and intensive systems based on the location	Prof. J.M.P.K. Jayasinghe Emeritus Professor, Department of Aquaculture & Fisheries, Wayamba University of Sri Lanka



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10:35AM - 10:50AM	2: Sustainable feeds and responsible feed management	Dr. Imtiaz Ahmad Khan Professor, Department of Zoology, University of Kashmir
10:50AM - 11:05AM	3: Ecosystem-based approach in aquaculture for sustainability and environmental protection	Dr. V. V. R. Suresh Principal Scientist & Head, Mariculture Division, ICAR-CMFRI
11:05AM - 11:20AM	4: Precision Aquaculture, Aquaculture System Design and Automation for Socio-economic and Environmental Sustainability	Prof. P. Chellapandi , Head, Industrial Systems Biology Lab, Department of Bioinformatics, Bharathidasan University
11:20AM - 11:35AM	Tea/Coffee break	Poster viewing and evaluation/ Networking
11:35AM - 12:15PM	Panel discussion 2: Aquaculture Production Systems for sustainable production and profitability	Moderator: Dr. C.V. Mohan Emeritus Scientist, WorldFish Deputy Moderator: Dr. P.K. Patil Principal Scientist & Chairman, PME & ITMU, ICAR-Central Institute of Brackishwater Aquaculture (CIBA)
	Zero-water exchange and Recirculating aquaculture systems	Prof. I.S. Bright Singh Emeritus Professor, NCAAH, CUSAT
	IMTA/Bio-floc/ Aquaponics/ Raceways and Developments in Sri Lanka	Prof. J.M.P.K. Jayasinghe Emeritus Professor, Wayamba University of Sri Lanka
	Nitrification in aquaculture systems	Dr. Rejish Kumar Assistant Professor, KUFOS
	Denitrification in aquaculture systems	Dr. Preena P.G. Assistant Professor, KUFOS
12:15PM - 12:45PM	Discussion	
12:45PM - 01:45PM	LUNCH BREAK	Poster viewing and evaluation/ Networking
	Session 4 Aquaculture Medicine in Practice	Chair: Dr Thitiwan Patanasatienkul Aquatic Animal Health Officer, WOA Co-chair: Dr. S. Kandan Director, Rajiv Gandhi Centre for Aquaculture (RGCA)
	Keynote address	
01:45PM - 02:05PM	Can Fish health extension services reduce antibiotic resistance in Aquaculture	Prof. Sophie ST-HILAIRE Professor of Aquatic Animal Health, City University of Hong Kong
	Invited talks	
02:05PM - 02:20PM	1: Gut microbiome manipulation in Aquaculture using Probiotics, prebiotics and Quorum quenchers in aquaculture: Key issues of concern	Dr. Anas Abdul Aziz Senior Principal Scientist, Regional Centre, CSIR-National Institute of Oceanography
02:20PM - 02:35PM	2: Phage therapy in aquaculture: A long way to go bacterial pathogens	Dr. C. R. Subhashini Director, Aristogene Biosciences Private Limited, Bangalore
02:35PM - 02:50PM	3: Vaccination and immune stimulation as two facets of	Dr. Indrani Karunasagar



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	preventive health care in aquaculture and Drug delivery systems in aquaculture	Director, UNESCO MIRCEN for Medical & Marine Biotechnology, Nitte University
02:50PM - 03:05PM	4: Hormonal formulations for endocrine regulation of reproduction in fin and shellfishes: Building up a sound strategy	Dr. Prem Kumar Senior. Scientist, ICAR- CIFE
03:05PM – 03:20PM	5: Synthetic biology and biomanufacturing in aquaculture medicine and aquatic animal health management: A Futuristic Projection	Prof. Pawan Dhar Executive Director, CVJ-Centre for Synthetic Biology, CUSAT
03:20PM - 03:35PM	6: Opportunities and challenges with improving biosecurity in aquaculture operations in the global south	Dr David Verner-Jeffreys Senior Scientist, Aquatic Animal Health, WorldFish
03:35PM - 04:15PM	Discussion	
04:15PM - 04:45PM	Tea/Coffee break	Poster viewing and evaluation/ Networking
	Session 5 Aquatic Animal Health Management in Practice	Chair: Prof. J.M.P.K. Jayasinghe Emeritus Professor, Wayamba University of Sri Lanka Co-Chair: Dr. Imtiaz Ahmad Khan Professor, Department of Zoology, University of Kashmir
	Keynote address	
04:45PM - 05:05PM	Aquatic Animal Health Management in practice	Dr. C.V. Mohan Emeritus Scientist, WorldFish
	Invited talks	
05:05PM - 05:20PM	1: Environment management through bioremediation (bioremediation of detritus, ammonia, and hydrogen sulphide) – A key to success in aquaculture health management	Prof. Valsamma Joseph Director, NCAAH, CUSAT
05:20PM - 05:35PM	2: Health management strategies of embryos and larvae of fin and shellfishes	Dr. K. Ganesh Assistant Director (Aqua), Marine Products Export Development Authority
05:35PM - 05:50PM	3: Health issues in larvae of fin and shellfishes and requirement of building up nutritional therapy and prophylaxis through nutrigenomics and microbiome manipulations	Dr. Sumithra T. G Principal Scientist, ICAR-CMFRI
05:50PM - 06:05PM	4: Application of Genetic Engineering and genome manipulation for the development of high-health, disease resistant and fast-growing fish varieties: status and way forward	Dr. Jayesh Puthumana Assistant Professor, NCAAH, CUSAT



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06:05PM - 06:20PM	5: Broodstock Multiplication Centre (BMC) and Nucleus Breeding Centre (NBC) for Shrimp broodstock development and SPF seed production	Dr. S. Kandan Director, Rajiv Gandhi Centre for Aquaculture (RGCA)
06:20PM - 06:35PM	6: Population medicine in aquaculture - Principles and practices of Aquaculture Medicine for aquatic animal health workers	Prof. I. S. Bright Singh NCAAH, CUSAT
06:35PM - 07:15PM	Discussion	
07:15PM - 09:00PM	DINNER	Poster viewing and evaluation/ Networking
DAY 3	January 18, 2025 Saturday	
	Session 6. Policies, regulations, and Implementations	Chair: Dr. A.S. Ninawe Principal Scientist (Retd.) Department of Biotechnology, Government of India Co-Chair: Dr. S. Kandan Director, Rajiv Gandhi Centre for Aquaculture (RGCA)
	Keynote address	
09:30AM - 09:50AM	Policies, regulations and Implementations in Aquaculture Medicine and Aquatic Animal Health Management - For inclusive development	Dr. Rohana Subasinghe Chief of Aquaculture (Retired), FAO-UN Co-founder and Director, Future Fish, UK
	Invited talks	
09:50AM - 10:05AM	1: Aquaculture and Aquatic Animal Health Management Policy for Asia-Pacific	Dr. C.V. Mohan Emeritus Scientist, WorldFish
10:05AM - 10:20AM	2: Policies and regulations on quarantine and certification for transboundary movement of finfish and shellfishes	Dr Jayagopal P. , Deputy Director, MPEDA (Min. of Commerce & Industry, Govt of India), Cochin - 682 036, Kerala, India,
10:20AM - 10:35AM	3: Analysis of policies and regulations for broodstock development and SPF seed production: practical impediments and necessary amendments	Shri G Rathinaraj Executive Director (Tech), NFDB, Hyderabad
10:35AM - 10:50AM	4: Practicing aquaculture medicine in the Asia-Pacific context: Regulations and Policies	Dr. V. Kripa Former Member Secretary, CAA, Coastal Aquaculture Authority
10:50AM - 11:05AM	5: Practical impediments of disease reporting and notification from Asia-pacific	Dr Thitiwan Patanasatienkul Aquatic Animal Health Officer, WOAH
11:05AM - 11:20AM	6: International Education Programme in Precision Aquaculture and Aquatic Animal Health Management.	Prof. IS Bright Singh NCAAH, CUSAT



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11:20AM - 11:50AM	Discussion	
11:50AM - 12:05PM	Tea/Coffee break	Poster viewing and evaluation/ Networking
12:05PM - 01:00PM	Farmers' interaction	
01:00PM - 02:00PM	Lunch break	
02:00PM - 03:30PM	Panel discussion and consolidation of technical sessions	Moderator: Dr Eduardo Leano Deputy Moderator: Prof. Sophie ST-HILAIRE
	Panelists	<ol style="list-style-type: none"> 1. Dr. Sahul Hameed 2. Dr. Subhendu Kumar Otta 3. Dr. Neeraj Sood 4. Dr. P.K. Patil 5. Dr. Rohana Subasinghe 6. Prof. J.M.P.K. Jayasinghe 7. Dr. B. Santhosh 8. Dr David Verner-Jeffreys 9. Dr. C.V. Mohan 10. Dr Thitiwan Patanasatienkul 11. Dr. V. Kripa 12. Prof. Valsamma Joseph
	Topic: Aquatic Medicine and Aquatic Animal Health Management as part of one Health: Framing Policies for Asia-Pacific in Research, Extension and Education for managing disease burden and attaining sustainability	Policies for: 1. Education 2. Employment at different levels 3. Marketing and trade 4. Culture environment 5. Disease transmission and control 6. Medicine in Aquaculture 7. One Health
03:30PM - 05:00PM	Valedictory of AQUAMAP25 & NCAAH Silver Jubilee Observance	