

ONE HEALTH EPIGENOMES AND MICROBIOMES: FROM SOIL TO PEOPLE WORKSHOP - RECOGNITION TO STUDENTS AND 'OUTSTANDING ONE HEALTH RESEARCHERS IN AQUACULTURE' AWARDEES

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The ONE HEALTH Epigenomes and Microbiomes: From Soil to People' workshop will address the following topics: reverse transcriptase-related genes and their possible role in the host cell response to transition metal pollution; from mangrove to fork: metal presence in the Guayas estuary (Ecuador) and commercial mangrove crabs; from field to plate: agricultural pesticide presence in the Guayas estuary (Ecuador) and commercial mangrove crabs; a transposable element–epigenetics perspective to understand antimicrobial resistance (AMR) and contamination by endocrine disrupting chemicals (EDCs) like heavy metals, biocides, glyphosate, microplastics, bis(2-ethylhexyl) phthalate (DEPH), and per- and poly-fluoroalkyl substances (PFAS); adaptation to global change; AMR in aquaculture from a ONE HEALTH approach; ONE HEALTH epigenomics, wastewater-based epidemiology and AMR: a role for glyphosate-based herbicides, *Bacillus thuringiensis*, *Vibrio sp.*; metals chelated by glyphosate, organophosphates, disinfectants, and persistent organic pollutants (PCBs, PAHs) in emerging resistant pathogens of public health concern; neutral processes and salinity shape microbial community assembly in mangrove ecosystems along estuary; impact of host genotype on gut and hepatopancreas microbiota of *Litopenaeus vannamei*; a bacteriophage cocktail as an alternative for the control of *Vibrio parahaemolyticus* responsible for AHPND in *Penaeus vannamei*; the hunt for wild caught probiotics: comparison of microbiomes from 569 vertebrates including 115 fish species; aquaculture at the crossroads of global warming and AMR and the use of bioactive plants and algae as a sustainable alternative; bacteriophage technology, an effective solution to tackle AMR in aquaculture; and the welfare concept – does it apply to shellfish, too?.

Four female scientists will be recognized as 2022 “Outstanding ONE HEALTH Researchers in Aquaculture”: Suhua Shi (China), Nitsara Karoonuthaisiri (Thailand), Fuhua Li (China) and Sandra Shumway (USA) by the Foundation for Conservation of Biodiversity (FUCOBI) of Ecuador. Twenty-two students, postdocs, and research associates from twelve countries (Belgium, Chile, China, Ecuador, India, Honduras, Mexico, Nigeria, Philippines, Romania, Thailand, United States) are winners of the ‘2022 Johnnie Castro Montealegre Travel Awards’ of the FUCOBI Foundation to attend the triennial AQUACULTURE 2022 meeting in San Diego, February 28 – March 4, 2022.