

GLOBAL VIRTUAL SUMMIT ON ENVIRONMENTAL HEALTH

May 17, 2021 | Webinar

The influences of Parasitic Zoonosis to one Health Safety**Subhash Chandra Parija***Sri Balaji Vidyapeeth University, Pondicherry, India*

The relevance and practicality of One Health Safety and security has been highly realized due to the ongoing Pandemic COVID-19. The One Health concept that looks into overarching health of human-animal and environment in a cross sectorial fashion insists looking into human health disasters from infectious agents owing to the pathogen spillage from animal origin and vice versa mostly in a relation with environmental influences. Events like climate changes, urbanization, deforestation, etc., have nearly dissolved the wildlife-human boundaries. These have influenced, in large, the flow of all parasite infections within the One Health triad and has resulted in a landscape change of zoonotic parasitic infections. As consequences, parasites are found in different ecology and in the continent with strong evidences of uprising of new and emerging parasites with antimicrobial resistances.

In our studies focusing parasitic infections in some regions of India has given hints of abundance of infections among populations. Intestinal parasitic infections like Entamoeba, Blastocystis, Giardia, Ascaris were noted. Likewise, prevalence of cysticercosis were also recorded. Parasites were mostly prevalent in rural compared to urban population giving hints of species spillage from animals. With such strong footprints across India and other reported studies suggesting higher parasitic abundances in Low- and Middle-Income Countries (LMICs), therefore, hints towards increasing instances of zoonotic spillover influenced by environmental changes. As such, this altered parasitic epidemiology is posing a great threat to the One Health safety by creating new evolutionary opportunities for host jumps and also making parasites resilient to the new environment leading to higher chances of transmission and virulence.

This calls for improving aspects of parasitology studies in One Health Framework to enable a mechanism for early detection, response, and effective medical countermeasures. In attempts to facilitate parasitic detection, we have tested improved molecular tools and technologies that had facilitated accurate species delineation and found promising tool to support effective medical countermeasures. In this presentation, the influence of parasitic infections, antimicrobial resistances on the One Health Safety will be discussed including advancements of molecular detection strategies to place a strong mechanism for healthcare management for better preparedness and responses.

Biography

Dr Subhash Chandra Parija is currently the Vice-Chancellor of Sri Balaji Vidyapeeth, Pondicherry and was the former Director of the Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Pondicherry. He is a Fellow of the Royal College of Pathologists, London; Royal Society Biology, UK and International Academy of Medical Sciences, New Delhi. He is the founder of the Indian Academy of Tropical Parasitology, and the Editor-in-Chief of Tropical Parasitology.

Dr. Parija has contributed immense in R&Ds in tropical parasites, and had initiated IATP-quality assurance programme for parasitic diseases in India. He has authored more than 400 research papers, 2 patents, 3 copyrights, 1 technology transfer and 16 books including most popular "Textbook of Parasitology". He is the recipient of more than 26 awards both international and national including the prestigious Dr. BC Roy National Award. He is currently figured among 2% Top Scientists in World in Tropical Medicine in the year 2020.

subhashparija@gmail.com