

ONWARD Webinar #4

WEBINAR SERIES ON WATER-RELATED DISEASES, THEIR LINKS TO ENVIRONMENTAL CONDITIONS, WATER QUALITY, MONITORING METHODS, AND SOLUTIONS



Dr. Jamie Shutler
Associate Professor, University of Exeter, UK

“RAPID ASSESSMENT OF SARS-COV-2 TRANSMISSION RISK FOR FECALLY CONTAMINATED RIVER WATER”

ONWARD WEBINAR No.4. 28th September, 2021 at 15:00-16:00, BST (19:30-20:30, IST)

Dr. Jamie Shutler is an ocean and atmospheric scientist with a wide range of interests that exploit satellite Earth Observation, in situ observations and models to study and monitor land, water and atmosphere environments and interactions, particularly in relation to climate which includes studying atmosphere-ocean exchange of climatically important gases, carbon accounting, bacterial, biological, viral and chemical water quality, and land-water continuum interactions. His work has covered novel in situ monitoring methods to support aquaculture, through to global analyses of carbon to support policy, through to the design of satellites for the European Space Agency. He was an invited scientific reviewer for the Intergovernmental Panel on Climate Change (IPCC) Special Report on the Oceans and Cryosphere in a Changing Climate (SROCC), and he was a lead author in the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and International Oceanographic Commission (IOC) decadal vision for integrated ocean carbon research. Jamie's research has been featured in the Guardian Environment, BBC news, Al Jazeera, Forbes, Higgs, The Daily Mail, The World Economic Forum, contributed to UK parliamentary enquiries (Ocean Acidification, 2017; Sustainable Seas, 2018) and guided international and inter-governmental agencies and research programmes.

About the Topic:

Following the outbreak of severe acute respiratory syndrome coronavirus (SARS-CoV-2), airborne water droplets have been identified as the main transmission route. Identifying and breaking all viable transmission routes are critical to stop future outbreaks, and the potential of transmission by water has been highlighted. By modifying established approaches, we provide a method for the rapid assessment of the risk of transmission posed by fecally contaminated river water and give example results for 39 countries. The country relative risk of transmission posed by fecally contaminated river water is related to the environment and the populations' infection rate and water usage. On the basis of in vitro data and using temperature as the primary controller of survival, we then demonstrate how viral loads likely decrease after a spill.

Dr. Jamie Shutler will present this work, explain its basis and how it can be used in both advising public health and guiding further research, and will describe the story behind its publication, including the people and the whales that compelled us into action.

Interested in joining ONWARD!! Please write to us at onward.gcrf@gmail.com with "ONWARD Membership" in the subject line