



## MANAGING WATER FOR CLIMATE SMART AGRICULTURE IN SOUTH ASIA

## Addressing Water and Food Security

Session 3 of the Research Workshop Series features Dr. Joan Rose, an international expert in water microbiology, water quality and public health safety. Learn more about the MW-CSA-SA program at [yipp.msu.edu/climatesmart](http://yipp.msu.edu/climatesmart).

### Dr. Joan B. Rose

#### Homer Nowlin Chair in Water Research

Every drop of water matters to Dr. Joan Rose and her research team who she calls “water detectives.” Dr. Rose is an international authority on water microbiology, water quality, and public health safety, and the 2016 Stockholm Water Prize Laureate. She co-directs both MSU’s Center for Advancing Microbial Risk Assessment (CAMRA) and its Center for Water Sciences (CWS).

Dr. Rose and her water detectives are developing new genetic analytics to study waterborne health threats. Water quality studies today tend to focus on the indicators of pathogens, but Dr. Rose’s work targets actual threat agents such as viruses, mapping water quality and health risks in waterways throughout the world.

Dr. Rose is also a pioneer in the emerging science of viral metagenomics – sequencing virus DNA in water sources, discharges and shipping ballast using next-generation high-throughput technology. Such technology promises to significantly improve methods protect water and food supplies, and Dr. Rose now is applying it to assess the safety of fresh produce.

Her global activity includes investigation of waterborne disease outbreaks and the study of water supplies, treatment, and reclamation. Her applied research interests include study of microbial pathogens in recreational waters and climatic factors impacting water quality. In 2015 Dr. Rose was named an honorary citizen of Singapore for her significant contributions in developing a safe and sustainable water system in the island nation. Read more about Dr. Rose’s work at [www.rose.canr.msu.edu](http://www.rose.canr.msu.edu).



## Friday, October 13, 2023

### 2:30 pm - 3:30 pm

### Business College Complex Minskoff Pavillion (BCCPV) M036

