

**CENTRE D'ETUDES NUCLÉAIRES DE  
BORDEAUX-GRADIGNAN**

**Vendredi 17 Novembre 2017**

**à 11H00**

*Un café sera servi à partir de 10h45*

**Seth H. FRISBIE**

*Norwich University, USA*

**How CENBG Helped Discover the Largest Mass Poisoning in History:  
Metal-affected Drinking Water in Bangladesh, India, and Myanmar**

In Bangladesh, India, and Myanmar, the technological and societal shift from drinking surface water to drinking groundwater has resulted in a great reduction of acute diseases due to water borne pathogens. However, arsenic, manganese, uranium, and many other naturally occurring inorganic toxic substances present in groundwater of this region have been linked to a variety of chronic diseases, including cancers, heart disease, and neurological disorders.

Our research suggests that at least 90,000,000 Bangladeshis are drinking groundwater with unsafe concentrations of arsenic, manganese, uranium, boron, barium, chromium, molybdenum, nickel, or lead. In addition, a large and unknown number of people from neighboring West Bengal, India are drinking groundwater with unsafe concentrations of arsenic, manganese, boron, fluoride, or possibly thorium and other toxic inorganic substances. Finally, a large and unknown number of people from neighboring Myanmar are likely drinking groundwater with unsafe concentrations of arsenic, manganese, fluoride, uranium, or possibly other toxic inorganic substances.

**Salle des Séminaires du CENBG**

*Le Haut Vigneau - BP 120 - F-33175 Gradignan Cedex*