



UNIVERSITY OF SASKATCHEWAN  
Global Institute for  
Water Security  
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GLOBAL WATER FUTURES

# Breakthroughs in Water Security Research: Distinguished Lecture Series



## Barbara Sherwood Lollar

University of Toronto

Wednesday, October 17<sup>th</sup>, 2018

3:30 to 4:30 p.m.

Convocation Hall

All lectures are free and open to the public

### ***Search for surviving remnants of early water on Earth – extending our knowledge of the deep hydrosphere and implications for subsurface life***

Dr. Barbara Sherwood Lollar is a Companion of the Order of Canada, Fellow of the Royal Society of Canada, director of the Stable Isotope Laboratory, and a professor of earth sciences at the University of Toronto where she holds the Canada Research Chair in Isotopes of the Earth and Environment. She is a past president of the Geochemical Society and named a Fellow of the American Geophysical Union in 2015.

Sherwood Lollar has published extensively in on stable isotope geochemistry and hydrogeology, the fate of carbon-bearing fluids and gases such as CO<sub>2</sub>, CH<sub>4</sub> and H<sub>2</sub> in ancient fracture waters in the Earth's crust, and the role of deep subsurface microbial populations in carbon cycling.

Her lecture will focus on ancient fractured waters rich in reduced dissolved gases, found in Precambrian cratons with host extant microbial communities. She will discuss how these groundwaters provide unprecedented samples for investigating Earth's ancient hydrosphere and atmosphere, ultimately unlocking the history and biodiversity of extant life found in the Earth's subsurface.