

# GSI – BIOPHYSICS SEMINAR

**Prof. Dr. Ruth C. Wilkins**

Radiobiology Division

Consumer and Clinical Radiation Protection Bureau -  
Health Canada, Ottawa, Ontario

**Monday, 18<sup>th</sup> June 2018 at 2 p.m.**

**Lecture hall, Theorie SB3. 3.170a**

Planckstraße 1, 64291 Darmstadt

## **“Biodosimetry in Canada”**

Health Canada is home to the National Biodosimetry Laboratory for providing biologically based dose estimates for Canadians who may have been exposed to ionizing radiation. It is also the lead laboratory of the Canadian Biodosimetry Network which provides biodosimetry assessments for potentially exposed individuals during a large scale event involving radiological or nuclear material. During such an event, biodosimetry is essential for providing timely assessments of radiation exposure for the general population and to identify first responders who must be restricted from further exposure. Cytogenetic assays such as the dicentric chromosome assay (DCA), the cytokinesis-block micronucleus (CBMN) assay and translocation analysis by Fluorescence *In Situ* Hybridization (FISH) are currently the most commonly accepted biodosimetry methods for radiation dose assessment; however in a mass casualty scenario these assays are not well suited for providing timely dose estimates due to their time- and expertise-intensive nature. Health Canada has been working to increase triage-quality biological dosimetry throughput by networking both within Canada and internationally as well as developing novel, high throughput methods for biological dosimetry. An overview of biodosimetry methods and recent progress in improving throughput will be presented.

Hosted by Dr. Sylvia Ritter

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