



Jewish General Hospital
Lady Davis Institute for Medical Research



"Biodosimetry at Health Canada"

Ruth Wilkins

Ionizing Radiation Health Science Division
Consumer & Clinical Radiation Protection Bureau
Health Canada, Ottawa, Ontario

Abstract

The Ionizing Radiation Health Science Division of Health Canada is responsible for assessing the biological effects of exposure to ionizing radiation. This work includes maintaining biodosimetry capabilities to determine the dose of radiation received by individual by measuring damage in biological samples. This service is used for nuclear energy workers, astronauts and for potentially exposed individuals during a large-scale event involving radiological or nuclear material. Traditionally, cytogenetic assays are used to estimate individual exposures to ionizing radiation, however, these can be extremely time consuming and labour intensive. In the event of a large population exposure to radiation, strategies are required to manage the surge of samples. To that end, Health Canada has been working to increase triage-quality biological dosimetry throughput by networking both within Canada and internationally. In addition, much effort has been devoted to developing novel, high throughput methods for biological dosimetry. This presentation will include an overview of the biodosimetry program at Health Canada including networking efforts and progress in new methods development.