

Review of recent efforts towards dosimetry standardization in radiation biology studies

Yannick Poirier

University of Maryland School of Medicine, Baltimore, MD

To improve study reproducibility and comparability in radiobiology, a number of organizations are attempting to improve dosimetry standardization in radiation biology. These include the AAPM's Task Group 319, the Compatibility of Irradiation Research Protocols Expert Roundtable (CIRPR) sponsored by the Office of Radiological Security (ORS), the International Physics and Engineering in Medicine (IPEM) Working Group on Standardization of Preclinical Dosimetry, and the National Institute of Health & National Institute of Allergy and Infectious Diseases (NIH/NIAID)'s Radiation and Nuclear Countermeasure Program's efforts. While these initiatives are focused on cabinet x-ray irradiators which are used to deliver the majority of radiobiological radiation deliveries, the recommendations target all kV x-ray irradiators and the field of radiation biology as a whole. This session will review regulatory changes, new recommendations, and upcoming reports by each of these organizations.