EXTENDED ABSTRACTS

Proceedings of the 6th International Workshop/12th L. H. Gray Workshop: Microbeam Probes of Cellular Radiation Response

St. Catherine’s College, Oxford, United Kingdom, March 29–31, 2003

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The extended abstracts which follow this introduction present a summary of the proceedings of the 6th International Workshop/12th L. H. Gray Workshop: Microbeam Probes of Cellular Radiation Response, held at St. Catherine’s College, University of Oxford, UK on March 29–31, 2003. In 1993 the 4th L. H. Gray Workshop entitled “Microbeam Probes of Cellular Radiation Response” was held at the Gray Cancer Institute in Northwood. This was organized by Prof. B. D. Michael, Dr. M. Folkard and Dr. K. M. Prise and brought together 40 participants interested in developing and applying new microbeam technology to problems in radiation biology (1). The workshop was an undoubted success and has spawned a series of subsequent workshops every 2 years. In the past, these workshops have been highly successful in bringing together groups interested in developing and applying micro-irradiation techniques to the study of cell and tissue damage by ionizing radiations.

Since the first microbeam workshop, there has been a rapid growth in the number of centers developing radiobiology microbeams, or planning to do so, and there are currently 15–20 worldwide. Much of the recent research using microbeams has used them to study low-dose effects and “non-targeted” responses such as bystander effects, genomic instability and adaptive responses. The goal of the 6th workshop was to build on our knowledge of the development of microbeam approaches and the application to radiation biology in the future. In a meeting stretching over a 3-day period, over 80 participants reviewed the current state of radiobiology microbeam research worldwide and reported on new technological developments in the fields of both physics and biology.

Reference