

# **PROFESSOR JOHN W. BOLDEMAN**

## **Recipient of the 2007 ANZAAS Medal**

In recognition of his sustained and outstanding contributions to nuclear science and particle accelerator physics, the Council of the Australian and New Zealand Association for the Advancement of Science resolved on 21<sup>st</sup> March 2007 that the ANZAAS Medal be awarded to Professor John W. Boldeman.

Professor Boldeman began his distinguished career with the Australian Nuclear Science and Technology Organisation (ANSTO) in 1960, becoming the Director of the Physics Division in 1987. After spending a total of 41 years with ANSTO (1960 to 2001) he was appointed to a personal Chair at the University of Queensland (2001 – 2002) and simultaneously became the Foundation Technical Director for the Australian Synchrotron until the end of 2002. Since then he has been the Principal Scientific Advisor to the Victorian Government on the project.

Professor Boldeman has pursued a complex career as a successful researcher, contributing to fundamental knowledge of nuclear fission, neutron cross sections, nuclear data, International Nuclear Safeguards, reactor science and guiding a broad range of researchers in related academic research fields. A distinguishing feature of his career has been the promotion and installation of many major facilities which have contributed to science in Australia and overseas. These include the 10 MV tandem accelerator (Antares), the National Medical Cyclotron, the 3 MV Van de Graaff Accelerator, Ausans and other neutron beam facilities on the HIFAR reactor.

He became committed to the installation of a National Synchrotron facility in Australia in 1989 and to improve the case for a national facility, significantly expanded the Australian synchrotron community via the establishment of the Australian Synchrotron Research Program and related programs. These programs provided access for Australian scientists to synchrotron facilities in Japan and the US. In 1993, he prepared a preliminary proposal for a national synchrotron facility. Independently, a proposal to install a facility in Australia was initiated by the Victorian Industrial Synchrotron Roundtable [ISRt], formed in 1996. Professor Boldeman was a key figure in linking the two proposals with consensus being achieved for a third generation 3 GeV facility. In 1999, he prepared a full design report and scientific and economic justification for this consensus facility and in the years 2001-2003 completely revised the design in collaboration with Professor Dieter Einfeld of Germany. This work ultimately led to the decision by the State Government of Victoria to build the Australian Synchrotron at Clayton, near Melbourne.

Currently he is involved in the preparation and promotion of a National Hadron Therapy Facility for the treatment of cancer.

Professor Boldeman has travelled extensively, representing Australia at a wide range of international nuclear forums, including on committees of the International Atomic Energy Authority (IAEA) and OECD Forums on Mega Science. He has also been a consultant to numerous international laboratories.

His commitments to the advancement of science and to the promotion of science in Australia and the South East Asian region make Professor Boldeman an outstanding role model for our up-and-coming young scientists and a worthy recipient of the ANZAAS Medal in 2007.