

IAEA radioactivity measurement program within DMRP

The International Atomic Energy Agency (IAEA), in response to a growing need for measurement quality assurance for radionuclides used in nuclear medicine, particularly in developing countries, is establishing a new radioactivity measurement programme in its Dosimetry and Medical Radiation Physics section. The short-term (3-5 years) goals of this project will be to:

1. Develop capabilities within the IAEA to prepare and distribute calibrated solution sources of medically relevant radionuclides, traceable to international standards, to Member States for use in calibrating instrumentation. Traceability will be established through comparisons with primary National Measurement Laboratories, as well as with the International Reference System for activity measurements of the BIPM. These activities will take place in the Nuclear Applications Agency's Laboratories in Seibersdorf. Initially, refitting of existing laboratory space to deal with high-level radioactivity handling and measurement requirements would be necessary. Subsequent activities will focus on development of production protocols and organization of international comparisons, beginning with ^{131}I . Ultimately, the goal will be to be able to distribute standard sources of most relevant radionuclides to Member States that require them as part of an ongoing quality assurance program.
2. Assist Member States in the development of quality assurance networks for nuclear medicine clinics in their countries. This could be accomplished through Technical Cooperation projects at the national and regional levels and will take the form of personnel training and consultations to develop appropriate quality assurance and audit systems, and in some cases, donation of appropriate instrumentation. Further, a Cooperative Research Programme is planned to develop a uniform code of practice for clinical radioactivity measurements.

The project is being led by Dr. Brian Zimmerman, who joined the IAEA in March 2003. Laboratories wishing to participate in these activities, especially those from countries lacking a primary standards laboratory, are encouraged to contact Dr. Zimmerman or visit the IAEA Technical Cooperation website: <http://www-tc.iaea.org/tcweb/default.asp>.