March, 2015

IRPA Bulletin

No. 05

This Issue...

Your IRPA CoP

The 14th IRPA NTERNATIONAL CONGRESS

(Contributed by Jack Valentin)

IRPA 14, *the* International Congress 2016!

The biggest, most important international event in radiological protection: THE IRPA 14 CONGRESS will take place 9-13 May 2016 at the Cape Town International Convention Centre in South Africa – and we look forward to seeing you there!

The IRPA Congresses take place every four year and provide a unique opportunity to keep abreast of all scientific, technical, and regulatory developments in all aspects of radiological protection, and to make, maintain, and enjoy contacts within our family of protection people from all corners of the world.

What's in it for you?

As a member of your national radiological protection society, you are also automatically a member of IRPA, so each IRPA Congress is really your own indispensable meeting. In addition, IRPA 14 offers unique added-value features; we will be celebrating the 50th Anniversary of IRPA, and this is the first IRPA International Congress to take place in Africa.

There will be a comprehensive, all-encompassing scientific and technical programme, a versatile selection of Refresher Courses and an all-round technical exhibition and technical visits programme, all providing the perfect opportunity for networking and continuing professional development; an excellent social programme with traditionally warm, vibrant and friendly African social and cultural events, and a great opportunity to sample the delights of generous South African hospitality.

The business of IRPA and its Associated Societies is also conducted during the congress, providing an opportunity for all society members to become familiar and involved in the workings of IRPA. A limited amount of financial support is available for young participants (students) and those from developing countries; see www.irpa2016capetown.org.za/registration.asp.

In short: IRPA 14 is a 'must-go' event for all radiological protection practitioners.

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The Congress Theme and leaders

The Theme, *Practising Radiation Protection – Sharing the Experience and New Challenges,* is the basis for the scientific programme. It focuses on the fact that we are the professionals of radiological protection. When practising our profession, we learn from each other and help each other to face new, unexpected developments. These include improved technologies permitting better protection, the increased presence of radiation in society, and response to radiation emergencies. All of us will recognise this panorama as part of our professional lives; the rapid development in African countries means that these changing perspectives are perhaps more evident than anywhere else.

The Congress President is Thiagan Pather, a founder member of the SARPA and Manager for Nuclear Technology and Waste Projects at the South African National Nuclear Regulator. The Congress Programme and Support Committees are chaired by Jack Valentin and Doug Chambers, respectively.

Thiagan Pather
Congress President
IRPA Vice President: Congress Affairs

The Scientific Program

The program will provide a familiar and easily assimilated structure, yet takes advantage of the newest technical means. It will feature keynote plenary presentations, parallel topical sessions, poster sessions, plenary summaries, and focused fora. The plenary sessions will include the prestigious Sievert Lecture, reviews of the science underpinning ionizing and non-ionizing radiological protection, the current status of the international system of protection, a session updating us on the lessons learned from the Fukushima Dai-ichi nuclear accident, and a brief focus presentation by the Royal Swedish Academy of Sciences Gold medalist. The final plenary session will identify the principal conclusions and outcomes from the Congress, highlighting the role and activities of IRPA.

The program will address three major topics:

1. Fundamental science, as applied to radiological protection and comprising epidemiology, physics and chemistry, biology, and social sciences. Attention will be paid to sources of exposure, interactions with matter, LET notions, radiochemistry, and nanoparticles. High doses and accidents as well as low doses, LNT, and epidemiology will be discussed, also prenatal exposures, non-cancer effects, individual radiosensitivity and toxicology and combined effects. Atomic bomb survivors, uranium studies, and background radiation will be revisited. Ethical issues as a scientific issue, public risk perception as related to policy, the idea of zero risk, and veterans from nuclear test will be discussed.

2. Policy, standards and culture, establishing philosophy and principles and covering international standards and recommendations, ethical aspects and radiological protection culture, stakeholder involvement, nuclear security, training and education, and integrated management systems. The

global radiation safety paradigm will be addressed in terms of doses and risks, philosophy and principles, international safety standards for ionizing and non-ionizing radiation, graded regulatory approach, and the integration with medical, security, and other industrial hazards. Ethical and cultural experiences, training and education issues, quality and management, and stakeholder involvement will be addressed. Key issues identified during IRPA 14 and challenges for the future will be summarized.

3. Practical application, i.e., radiological protection practice in nuclear and other industry, mining and minerals processing, medical uses, non-ionizing radiation, and naturally occurring radiation. The focus will be on the professional facing the realities of radiological protection practice, and the practical situations that we encounter as professionals in the medical area, in general ionizing and non-ionizing radiological protection, in justification, optimization, and design, in radiation detection and dosimetry, in environmental and natural background issues, in transport and sealed sources management, in emergencies, and in decommissioning, waste, and remediation contexts.

Some 16 cross-cutting and thematic subjects will feature in all of the major topics, so you will be able to select sessions closely matching your own profile.

The 50 Year Celebration

The fiftieth anniversary of international collaboration amongst radiation protection professionals worldwide, under the IRPA banner, will be celebrated with a session dedicated to the achievements and milestones that have marked this period. The session will be an important part of the scientific program and will highlight the scientific topics underpinning our profession, the issues we have faced and can expect, and the lessons learned so far. It will provide a unique insight into the role and influence of professional societies and IRPA in the evolving world of radiation safety.

International NIR Workshop

On May 9 - 11, 2016, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) will hold its 8th International NIR Workshop in conjunction with the IRPA 14 Congress, signifying the dedicated co-operation and collaboration between ICNIRP and IRPA. The major findings of the ICNIRP Workshop will be presented during the final scientific plenary of IRPA 14. More information on the ICNIRP 8th International NIR Workshop is available at www.icnirp.org.

Discounted registration fees will be available for those who register for both the IRPA 14 Congress and the ICNIRP 8th Workshop.

Technical exhibition and technical visits

This is a significant part of the scientific offering provided by IRPA14, and will give you the opportunity to sample the latest technical developments in all the fields in which radiation protection is playing an active role. Local and international suppliers will showcase the latest in product development and related services.

Sponsored commercial presentations will make you aware of the products, services and capabilities of commercial companies and organizations. Technical exhibitors are also encouraged to submit scientific presentations which will be peer reviewed to the same scientific rigour as all proffered presentations.

If you wish to participate as an exhibitor, please see www.irpa2016capetown.org.za/Exhibition/Prospectus.pdf.

A pre-congress Technical Visits program will let you visit a variety of facilities. Most visits will take place 6 May 2016 and can either be attended as a one-day visit or as part of a sightseeing tour. One visit, to Necsa (the South African Nuclear Energy Corporation), will be a two-day tour, 5-6 May 2016.

Refresher Courses

Twenty Refresher Courses will be delivered by selected instructors in parallel morning sessions. The Refresher Course program will let you update your knowledge in specific areas of radiological protection science and practice. The courses will provide a broad overview of the current state of their topic, thereby giving non-specialists a sound understanding of the current status, and giving experienced practitioners a more detailed understanding of up-to-date developments in a field.

The IRPA Young Professional Award

The IRPA Young Professional Award is intended to promote investigation into radiological protection and all its related disciplines by young professionals and scientists. If you are early in your career, the Award renders an opportunity to make oral presentations to an experienced international audience of experts and peers.

Besides the IRPA Young Professionals Award, the Organizing Committee will encourage networking amongst young persons by holding a specific reception, allowing young participants to meet some of the senior figures in the profession.

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The Venue

Cape Town is the quintessential melting pot: a city alive with creativity, color, sounds and tastes. While walking through the City's streets and meeting its people, you will fall in love with its natural beauty, creative freedom and incredible spirit. Cape Town is a city where the unexpected is always just around the corner and the beautiful province of the Western Cape lies ready to be explored across the city border.

The Congress will take place at Cape Town International Conference Centre (CTICC), 9–13 May 2016. Located in the hub of the city's beautiful northern foreshore, CTICC offers world-class standards and specifications, and is a cosmopolitan showcase where ideas and cultures from around the globe are able to meet and mingle against the stunning backdrop of Table Mountain.

Congress accommodation is available to suit all tastes and budgets, from luxury 5-star establishments to modest guesthouses and bed and breakfasts.

A wide range of attractive tours and excursions will be on offer to visitors and these will be of a cultural, historical and geographical nature. From townships to wildlife reserves, shopping malls to vineyards, there will be something to delight everyone.

Organizers and Hosts

IRPA 14 is hosted by two collaborating organizations, the Southern African Radiation Protection Association (SARPA) and the South African Radiation Protection Society (SARPS).

SARPA was established in 1997 with the vision to be an independent association serving the objectives and profession of radiation protection in South Africa and in the broader Southern African region. SARPS was established in 1970 with the mission to promote radiation protection in medicine, science, agriculture, commerce and industry in South Africa with an emphasis on health care.

South Africa has a long history with the use of radiation in medicine and industry. The nuclear industry comprises uranium mining, nuclear power generation and radioisotope production. South Africa plays an important role in African regional affairs and within the group of emerging economies within the world. These dimensions bring special meaning to the Congress as a valuable opportunity to share lessons learned in radiological protection worldwide and to discuss emerging challenges.

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Some Key Dates

Abstract submission deadline: 20 September 2015
Notification, paper acceptance: 31 December 2015
Early registration: - 31 January 2016
Full paper submission deadline: 31 March 2016
Late registration: 1 April 2016 –
IRPA 14 Congress: 9-13 May 2016

For more information

www.irpa2016capetown.org.za
The IRPA 14 2nd Announcement is available at:
www.irpa2016capetown.org.za/announcements/2ndAnnouncement/2ndAnnouncement.pdf

Organized in Collaboration with

EUROPEAN COMMISSION (EC)

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION (ICNIRP)

INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION (ICRP)

INTERNATIONAL COMMISSION ON RADIATION UNITS & MEASUREMENTS (ICRU)

INTERNATIONAL LABOUR OFFICE (ILO)

INTERNATIONAL ORGANIZATION FOR MEDICAL PHYSICS (IOMP)

INTERNATIONAL SOCIETY OF RADIOGRAPHERS & RADIOLOGICAL TECHNOLOGISTS (ISRRT)

OECD NUCLEAR ENERGY AGENCY (OECD/NEA)

PAN AMERICAN HEALTH ORGANIZATION (PAHO)

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

UNITED NATIONS SCIENTIFIC COMMITTEE ON THE EFFECTS OF ATOMIC RADIATION (UNSCEAR)

WORLD HEALTH ORGANIZATION (WHO)

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ICRP 2015

3rd International Symposium on the System of Radiological Protection

October 20-22, 2015 | *Mayfield Hotel and Resort, Seoul, KOREA*

Registration Open: March 2015

ICRP 2015 Website Open: March 2015

"More than 90% of ICRP 2013 attendees were very or extremely satisfied"

"95% of ICRP 2013 attendees said they would recommend their colleagues come to Seoul to attend ICRP 2015"

Venue

Mayfield Hotel and Resort, KOREA

- Address: 94 Banghwadae-ro, Gangseo-gu, Seoul, Korea
- Tel: +82-2-2660-9000
- Website: http://www.mayfield.co.kr/

Symposium Program

Session 1. ICRP: Ongoing Work

Co-Chairs: ***Claire Cousins*** *(Chair, ICRP & Addenbrooke's Hospital, UK),* ***Christopher Clement*** *(Scientific Secretary, ICRP)*

Session 2. Exploring Existing Exposure Situations

Co-Chairs: ***Jean-Francois Lecomte*** *(Secretary, ICRP Committee 4 & Institute for Radiological Protection and Nuclear Safety (IRSN), France),* ***Agneta Rising*** *(Director General, World Nuclear Association)*

Session 3. Radiological Protection in Medicine Today

Co-Chairs: ***Donald Miller*** *(Vice-Chair, ICRP Committee 3 & Center for Devices and Radiological Health, Food and Drug Administration, USA),* ***Il Han Kim*** *(President, Korean Association for Radiation Protection & Seoul National University, Korea)*

Session 4. The Science behind Doses in Radiological Protection

Co-Chairs: ***Jaiki Lee*** *(Member, ICRP Main Commission & Hanyang University, Korea),* ***Hans-Georg Menzel*** *(Chair, International Commission on Radiological Units and Measurements & Member, ICRP Main Commission)*

Session 5. New Developments in Understanding Radiation Effects

Co-Chairs: ***Werner Ruhm*** *(Secretary, ICRP Committee 1 & Helmholtz Zentrum Munchen, Germany),* ***Malcolm Crick*** *(Scientific Secretary, United Nations Scientific Committee on the Effects of Atomic Radiation)*

Session 6. Ethics in Radiological Protection

Co-Chairs: ***Jacques Lochard*** *(Vice-Chair, ICRP & Nuclear Protection and Evaluation Centre (CEPN), France),* ***KunWoo Cho*** *(Member, ICRP Committee 4 & Korea Institute of Nuclear Safety)*

ICRP INTERNATIONAL COMMISSION OF RADIOLOGICAL PROTECTION

KARP The Korean Association for Radiation Protection

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Japan Health Physics Society (JHPS) - Introduction and the second set of recommendations after the Fukushima accident

(Contributed by Toshiso KOSAKO, President, JHPS)

The Japan Health Physics Society (JHPS), originally organised as a chapter of the US HPS in 1961, is a scientific organization of professionals who specialise in radiation safety. Our mission is to promote excellence in the science and practice of health physics and to reflect the activities to the society. Today we have nearly 800 members who represent all scientific and technical area related to radiation safety. We joined IRPA as an independent Associated Society in 1965 and are also a member of the Asian and Oceanic Association for Radiation Protection (AOARP). During 2010 to 2014, the president of JHPS, Prof. Toshiso KOSAKO, served as the president of AOARP.

We organises annual technical meeting usually in early summer and several symposia and workshops on radiation protection each year. JHPS has Executive committee governing 4 permanent committees of Strategic Planning Committee, Editorial Board, International Affairs Committee and Japanese Standardization Committee on Radiation Protection, active Young Researchers Association, and some ad hoc Expert groups on topical issues, e.g., radiation protection for eye lens and basic radionuclide values in radiation protection. We are in partnership with the Atomic Energy Society of Japan and the Japanese Society of Radiation Safety Management.

One of the most important activities of JHPS is identification of radiation protection issues in the aftermath of the Fukushima Daiichi nuclear disaster. Following the first set of recommendations discussed at IRPA13, we have further investigated the radiation protection issues by reviewing the reports published by the Independent Investigation Commission (Feb. 2012), Tokyo Electric Power Company (June 2012), the National Diet (July 2012) and the Government (July 2012) to prepare the second set of JHPS recommendations. The issues picked up are: environmental radiation monitoring, prediction system and methodology of the diffusion of radioactive materials in the environment, framework of the evacuation of residents with criteria, communication and designation of evacuation zone for radiation protection, radiation protection criteria for foods and drinks, actual radiation exposure of residents and of plant recovery workers, risk communication to the public and the appropriate nuclear emergency preparedness. The second set of recommendations is now published and is available at:
http://www.jhps.or.jp/jhp/wp-content/uploads/2014/12/JHPS-issues_and_recommendationsrecom.pdf.
Any comments and suggestions from radiation protection colleagues in the world to the recommendations are welcomed and appreciated.

JHPS Executive Committee

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The 2nd North America Workshop on the Ethical Dimensions of the System of Radiological Protection

March 10-12, 2015, Cambridge, MA, USA

(Contributed by: Behnam Taebi and Kunwoo Cho)

This workshop was part of a larger series of ICRP-workshops with the aim to spell out the ethical foundations of the system of radiological protection. ICRP has established Task Group 94 (TG 94) to develop a publication on the ethical foundations of the system of radiological protection, aiming to consolidate the basis of ICRP's recommendations, to improve the understanding of the system and to provide a basis for communication on radiation risk and its perception. This workshop series is intended to contribute to the work of TG 94.

The workshop started with a general overview of ICRP's recent efforts to revise its recommendations, provided by ICRP Vice-Chair, Jacques Lochard. Kunwoo Cho & Chieko Kurihara, respectively the Chair and a member of TG 94, presented an overview of the work of their TG on the Ethics of Radiological Protection until now. There were four additional keynote talks, given by Stephen Gardiner (University of Washington), Sheila Jasanoff (Harvard), Friedo Zölzer (University of South Bohemia) and Behnam Taebi (Harvard/TU Delft). Most of the workshop time was devoted to an interactive discussion by the participants with the aim of contributing to the ongoing work of TG 94.

In the interactive session, several key issues were collected and reviewed. A great portion of the discussion was devoted to two efforts. First, to identify and categorize the key ethical issues and second, to sum up some of the key challenges that we have in this categorization and in understanding the meaning of each of these ethical issues. The group followed a tripartite model, or an imaginary triangle with three levels, with on the top level values (i.e. key ethical issues that we have reasons to hold paramount), on the mid-level principles (i.e. principles that we derive from those values – the existing ICRP principles of Justification (JP), Optimization (OP) and Dose limitation (DL) belong to this category – and the lowest level of tools, procedures and guidelines that are very specific and relevant to the daily practice of radiation practitioners.

One central question throughout the workshop was 'how can the proposed system with values and principles help radiation practitioners in their daily practice? A case study from nuclear cardiology (i.e. stress first versus stress only tests) was discussed extensively, in order to assess the usability of the proposed system.