



# IRPA BULLETIN

For RP professionals, by RP professionals

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## 5<sup>th</sup> African IRPA Congress

6-9 Septembre 2018

Tunis - TUNISIA

(Latifa Ben Omrane, AFRIRPA5 Organizing Committee President; Eduardo Gallego, IRPA Vice President)

In just two months, the IRPA Associate Societies in Africa are going to hold their 5<sup>th</sup> Regional congress to enhance the radiation protection culture and practice in the continent. The AFRIRPA5 Congress will be hosted by the Tunisian Association of Radiation Protection against Ionizing and Non Ionizing Radiations (ATPRI&NI) in Tunis, Tunisia, 6-9 September 2019. The history of Tunis reveals a rich past where different and successive Mediterranean cultures had strong presence, since the Carthaginian civilization to the Arab-Muslim civilization through Roman civilization. Tunisian Culture is diverse and represents a unique, mixed heritage that participants at this congress will have the opportunity to discover.

The AFRIRPA5 Congress provides a privileged opportunity to meet professionals from all horizons and to discuss all aspects of radiation protection, worldwide and particularly in Africa with the theme "*Towards Sustainability in Radiation Protection*". The Congress will focus on the evolution of techniques and scientific knowledge on the health effects of ionizing and non-ionizing radiation; regulations and implementation of the safety standards of radiation protection in occupational, medical, public and environmental exposures. Discussions will be opened to the ethical issues, such as risk communication and the development of a practical culture of radiation protection.

The Scientific Programme is almost finalised, with a total of 228 abstracts from 31 countries. It will be enriched by plenary and round table sessions, parallel and poster sessions, an AFROSAFE session and a technical exhibition, as well as refresher courses on all relevant scientific and operational topics in radiation protection.

During the Congress, a ceremony will be held to celebrate the life and contributions of Prof. Azza Hammou, the founder and the first President of the ATPRI & NI. As a part of this celebration, an award for the young scientists and professionals, has been named "*Azza Hammou*". It has the objective to help promote the interest and expertise of the new generations in the field of radiation protection, rewarding dedication and excellence.

We sincerely hope to see many African colleagues in Tunis, looking "*towards sustainability in radiation protection*" in the region, thanks to the fruitful cooperation between IRPA and its Associate Societies, together with the IAEA, WHO, ILO, IOMP, FAMPO, the Arabic Agency for Atomic Energy and AFROSAFE. We are sure you will enjoy a pleasant stay and a warm welcome full of jasmine scent!

Please visit the congress website: <http://afrirpa05.org>



Place de la Kasbah, Tunis.

## Your IRPA Commission on Publications

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# President's Blog

Such a lot is happening in IRPA at this mid-term point in our four-year life cycle. The calls for our input as 'The International Voice of the Radiation Protection Profession' are increasing, which is great in terms of ensuring that your views, as RP practitioners, are heard – but it does present challenges to our time and resources. And this year we are having our four Regional Congresses around the world. Three very successful congresses have already taken place, in Havana (Latin America), Melbourne (Asia/Oceania) and The Hague (Europe), and you will no doubt hear a little more about these. Our final Regional Congress for Africa, in Tunis, will take place shortly (6-9 September) as I write this.

One common feature of the congresses has been the engagement of our younger people, both in the scientific programme (for example via the Young Professionals Prize Competitions, where the standard has been incredibly high) and in specific events to mark the launch of our Young Generation Network (YGN). This is a major development in IRPA's lifecycle, and there is more detail in this Bulletin. But I would just like to note the beautiful Mission Statement they have developed: "*To encourage, inspire and develop the next generation of radiation protection professionals across the world .....*". What can be more important than this? There is of course an issue of gender balance – where are the young men? Our young ladies have dominated the Prize Competitions, so I challenge the men to respond!

By the time you read this Blog there should be a new IRPA website up and running. This has been under development for some time, and we have aimed to make it easier to use and much more informative than our previous site. It will continue to develop over the coming months, and if you have any suggestions for improvement then please get to us at [cop@irpa.net](mailto:cop@irpa.net).

There is one other major development that I would like to bring to your attention. Over the past year, we have been seeking views on whether, and if so then how, IRPA should engage with a higher profile in the field of Non Ionising Radiation (NIR). Your response has been an overwhelming 'yes', with a broad remit to develop an active role in line with our extensive programme in Ionising Radiation – that is both to act as the International Voice of the Profession (as above) and also to share good practices and ideas around our societies. It is clear that a small number of societies already have a very active engagement in this field, and that they do recognise the importance of working to enhance the 'NIR' knowledge of their practitioners and to support those specialists engaged in this field. So we are pulling together a new Task Group on NIR which is charged with developing our programme, which must include working closely with ICNIRP and WHO, who are very active on this topic. We recognise that this is a subject that is quite unfamiliar to many of us, and so the next few editions of this Bulletin will contain a series of NIR articles to help raise the profile of this exciting new engagement.

Roger Coates

IRPA President



XI CONGRESO REGIONAL  
de SEGURIDAD RADIOLÓGICA  
y NUCLEAR

## XI Latin American IRPA Regional Congress on Radiation and Nuclear Safety

(Ana Maria Bomben, IRPA EC Member)

The XI Latin American IRPA Regional Congress on Radiation and Nuclear Safety was held from 16<sup>th</sup> to 20<sup>th</sup> April 2018, in Havana, Cuba, with the motto "Safety Culture, a shared commitment". The Regional IRPA Congress was organized by the Cuban Society of Radiological Protection with the support of all the Radiation Protection Societies of Latin America and the Caribbean and international organizations such as IRPA, IAEA, WHO, PAHO, and FORO, among others.

The Congress was held at the Havana Conventions Palace and two days the sessions were located in several historical buildings downtown in Old Havana. The Congress was very successful with more than 400 participants coming from 22 countries. During the Congress there was a programme with 18 thematic areas covering all the radiation protection topics and 431 papers were approved for presentation. There were Round Tables, Poster Session and 4 Conferences. Ten Refresher Courses were delivered and attended by 415 participants.

During the Congress, and for the first time in an IRPA Congress, a thematic panel on gender took place. As in the two previous editions of the Regional Congress, there was a Young Professional in Radiation Protection Award and participated young professionals from Argentina, Colombia, Cuba and Peru. The final report of all the Congress (in Spanish) is available in [www.irpacuba.com](http://www.irpacuba.com).

At the Closing Ceremony it was announced that the next Latin American Regional Congress will take place in Santiago de Chile in 2022.





## Launch of the IRPA Young Generation Network

(Akihiro Sakoda, Sylvain Andresz and Pete Bryant)

June 2018 represented a major milestone for IRPA with the Official Launch of the IRPA Young Generation Network (YGN) at the European IRPA Congress in The Hague . The IPRA YGN is an international network of “Young Professionals” across the field of radiation protection aimed at promoting communication, collaboration and professional development of students and young professionals in the area of radiation protection and its allied fields. Membership is open to all members of national radiation protection YGN ’s, and where a national YGN is not in place, students or professionals working within the first 10 years of the career in the field of radiation protection or its allied fields.

The network is organized and run by the IRPA YGN Leadership Committee which was established in December 2017. The committee currently includes representatives from France, the UK, Austria, Japan, Argentina, and South Korea and to date has primarily been focusing on the establishment of the network. Going forward the committee will be driving the growth and development of the network in line with the IRPA YGN Mission Statement:

*“To encourage, inspire and develop the next generation of radiation protection professionals across the world and promote the communication and collaboration of our members”*

Underpinning its mission are the following core objectives. These will develop as the network grows and moves forward:

- Attracting individuals into the field of radiation protection, by engaging and inspiring them early in their career journeys.
- Enable the development of students and young professionals studying / working in the field of radiation protection by providing valuable personal and professional development and growth opportunities.
- Providing a supportive and growing community, promoting communication and collaboration to help retain young professionals working in the field of radiation protection.
- Improve the understanding of radiation protection and its allied fields across the world by being ambassadors for the field.

To celebrate the launch two events were organized and run by the IRPA YGN Leadership Committee. This included the launch at The Hague and a similar event at the 5th Asian and Oceanic IRPA Regional Congress on Radiation Protection(AOCRP-5) in Melbourne, Australia.



Both events took a similar format and included an introductory talk on the IRPA YGN, followed by a number of short talks from representatives of regional YGN's discussing their history, mission and activities. The event at The Hague was chaired by Christoph Stettner (IRPA YGN, Austria) and included talks from Sylvain Andresz (IRPA YGN, France), Pete Bryant (IRPA YGN, UK), Cristian Candela Juan (President of the J-SEPR, Spain), Angelo Infantino (Italian Association for Radiation Protection), Mélanie Maître (Young Club of the French Association for Radiation Protection), Franz Kabrt (The Young Scientists and Professionals of the Austrian Radiation Protection Association) and Thomas Suter (Rising Generation Group, UK). The event in Melbourne included talks from Akihiro Sakoda (IRPA YGN, Japan), Noriaki Kataoka (Young Researchers Association, Japan), Wi-ho Ha (Young Scientist Group, Korea), Zhi Zeng (Personal, China) and Alexander Borovskis (Australian YGN).

Following the talks, panel sessions were held, encouraging audience participation to discuss the next steps in progressing collaboration between the networks. A number of IRPA Executive Members including Roger Coates, Hiroko Yoshida and Bernard Le Guen delivered encouraging remarks. The events also included the unveiling of the IRPA YGN Logo which was designed by the SFRP Young Club, as part of the IRPA YGN Logo Design Competition. A representative from the SFRP Young Club was presented with an award at the event at The Hague. Both events were a great success, with individuals from various countries expressing an interest to join. This included the recruitment of a number of new national representatives to the IRPA YGN Leadership Committee.

For more information on the IRPA YGN please visit our Facebook Group (@IRPAYGN) or visit the IRPA Website.



Left: IRPA President Roger Coates and IRPA YGN Leadership Committee Members (Christoph Stettner, Sylvain Andresz and Pete Bryant) Present the IRPA YGN Logo Competition Award to Mrs. Mélanie Maître from the SFRP Young Club; Right: panel discussion at the AOCP-5 YGN Event (Left to right,Akihiro Sakoda, Noriaki Kataoka, Alexander Borovskis, Wi-ho Ha and Zhi Zeng)



## Call for Design – New Template for IRPA Bulletin

Are you happy with the current IRPA Bulletin template? We are not!

If you have new designs, or simply have ideas on the design, please share with us. Thank you for your supports! Your contributions will be acknowledged and much appreciated!

Your Editors

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## New IRPA Website!

Point your browser to [www.irpa.net](http://www.irpa.net) to check out our new and improved website. Keeping on top of the latest developments in radiation protection and finding the information you need has never been so easy. The site will continue to develop over the next few months, so if you have comments do not hesitate to let IRPA Publications Director Christopher Clement know at [clement@irpa.net](mailto:clement@irpa.net).

Be sure to take a look at a new feature launched with the new website: the IRPA Horizon Scan. Information on this is attached to this issue of the IRPA Bulletin.



The launch of the new IRPA website includes the launch of a new service for IRPA members: the **IRPA Horizon Scan**.

This is a set of issues monitored by the IRPA Executive Council because of their potential impact on the practice of radiation protection. The intention is to maintain a relatively short list of the highest-priority issues.

Anyone visiting the site can add to the discussion on each issue by leaving comments. Major developments will be shared with the IRPA community through the IRPA news and other channels.

Below is a list of the issues included in the IRPA Horizon Scan on initial launch. Soon, and on a continuing basis, members will be invited to suggest updates to this list.

## Assessment of Dose to the Lens of the Eye

Dose to the lens of the eye has received increased attention in recent years with ICRP's new dose limits to the lens of the eye being adopted in the International and European Basic Safety Standards. In 2017, IRPA released [Guidance on Implementation of Eye Dose Monitoring and Eye Protection of Workers](#). Practical dosimetry methods for measuring dose to the lens of the eye are emerging, but further work is required in this area and in establishing an appropriate regulatory framework and good practice.

## Developments in Tissue Reactions and Related Science

Recent work of ICRP, especially in [ICRP Publication 118](#), has shed light on the complexity of tissue reactions (deterministic effects) due to exposure to radiation. New scientific evidence on cataracts and circulatory disease suggesting effects at levels considerably lower than previously understood has raised the profile of tissue reactions. Continued research is necessary to improve the understanding of the risk and mechanisms of cataract induction and circulatory disease related to radiation exposure especially below 0.5 Gy.

## LNT for Radiation Protection

NCRP Scientific Committee (SC) 1-25 on Recent Epidemiologic Studies and Implications for the Linear-Non threshold Model evaluated recent epidemiologic data relevant to the Linear-No-Threshold (LNT) model, primarily covering the past 10 to 15 years representing the time since the epidemiologic data used by the National Academies' Health Risks from Exposure to Low Levels of Ionizing Radiation (BEIR VII) and the United Nations Scientific Committee on the Effects of Atomic Radiation 2006 reports were compiled.

SC 1-25 concluded that there was sufficient epidemiologic evidence consistent with the LNT model to continue to recommend it as a practical and prudent guide for radiation protection purposes. Ultimately, however, it will be necessary to base judgments on the complementary epidemiologic and animal LD/LDR data and to understand the causal and protective mechanisms for radiogenic cancer. The outcome of the SC 1-25 has been published as a NCRP commentary, Commentary No. 27 - Implications of Recent Epidemiologic Studies for the Linear-Non threshold Model and Radiation Protection (2018), see: <https://www.ncrppublications.org/Commentaries/27>.



## Low-Dose and Low-Dose-Rate Risk

ICRP has embarked on an extensive review of the science in this area by establishing [Task Group 91 Radiation Risk Inference at Low-dose and Low-dose Rate Exposure for Radiological Protection Purposes](#). A [2015 paper in Radiation and Environmental Biophysics](#) presents progress on this topic.

## Optimisation of Radiation Protection for (Paediatric) Patients

Several initiatives, like [Image Gently](#) and [Image Wisely](#), have emerged in recent years to promote optimisation of radiation protection of patients. The focus is mostly but not exclusively on paediatric patients, and mostly but not exclusively in medical imaging. However, there are contrary views on the subject as well, for example a [2017 paper in the Journal of Nuclear Medicine](#). IRPA encourages continued debate on this subject, but also endorses initiatives that promote optimisation of radiation protection of patients, workers, and the public.

## Practical Aspects of the Proposed Revision to ICRU Operational Quantities

Changes to operational quantities are proposed in a draft report of ICRU and ICRP that underwent public consultation in late 2017. Several comments raised the issue of potentially significant impacts on practical aspects including instrument calibration and design which could have significant cost implications. The [draft report and consultation comments are available](#).

## Practical Radiation Protection: Reasonableness, Conservatism and the Graded Approach

IRPA and some other international organisations have proposed that more attention should be given to encouraging a more proportionate approach to practical implementation of radiation protection, for example through avoiding inappropriate conservatisms in assessments, greater emphasis on 'reasonableness' in ALARA considerations and a more effective use of the graded approach in regulatory affairs. In interfaces with the international organisations IRPA will continue to encourage such approaches.

## Revision of Radon Dose Coefficients

Revised radon dose coefficients have been published in [ICRP Publication 137 Occupational Intakes of Radionuclides Part 3](#). A [Summary of ICRP Recommendations on Radon](#) is available in [ICRPÆDIA](#). Although protection against radon is primarily based on measurement and control of levels of exposure, dose estimates are required in certain situations for workers. For buildings and underground mines, a dose coefficient of 3 mSv per  $\text{mJ h m}^{-3}$  (approximately 10 mSv per WLM) is recommended, i.e. approximately double the value of the previously recommended value. For indoor work involving substantial physical activity, and exposures in tourist caves, the recommended dose coefficient is 6 mSv per  $\text{mJ h m}^{-3}$  (approximately 20 mSv per WLM). This increase in dose coefficients will result in higher assessed doses to workers exposed to radon, possibly resulting in doses approaching regulatory limits in some cases. In addition, doses from natural background exposure will increase significantly. As these figures are used in communicating to the public about radiation exposures, careful consideration will be needed on how this change will be communicated.