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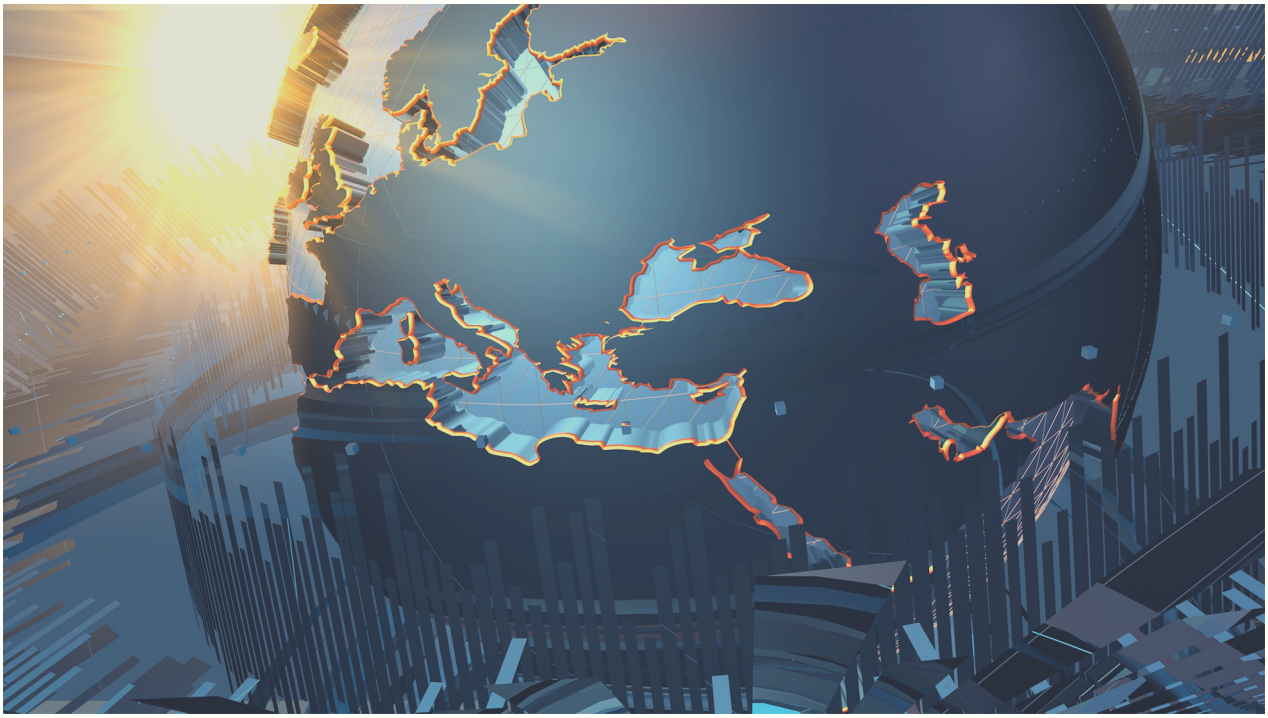
IRPA Bulletin

For RP professionals, by RP professionals



In this issue:

PRESIDENT'S BLOG

(ROGER COATES, IRPA PRESIDENT)

2019 started rather quietly, but it has certainly got busy. Over the last three months I have attended the meeting of HERCA (European Regulators), IAEA Radiation Safety Standards Committee, the Inter-Agency Committee on Radiation Safety, the annual conferences of the UK SRP, Canadian CRPA, US HPS, and the ISORD-1 conference hosted by the Chinese Society for Radiation Protection. It is great to see our profession holding well-attended meetings and conferences, discussing issues of key importance to the profession.

One common feature is the increasing interest in 'Reasonableness' in ALARA/optimisation, which is a key IRPA theme. The need to focus on the higher exposures, whilst addressing lower exposures in a framework of culture and common sense is becoming recognised. Of course, where public exposures are concerned there is a need to be sensitive to concerns and to focus on the processes of real engagement, but this does not mean that ever lower doses must be the order of the day. We must take account of 'value for society', because ultimately we all pay for whatever is agreed.

We are gradually making progress in drafting the guidance on public understanding, although there is still quite a long way to go. There have been very useful workshops in Scarborough (UK) and Orlando (US), based around an early document drafted by an enthusiastic core group. We hope to circulate a revised draft more widely in the near future.

We held the annual meeting of the IRPA Executive Council during the HPS Orlando conference. We are now over three-quarters of the way through our term of office, and we focussed on closing out some of our key issues and, as ever preparing for the future. Watch this space!

THE 2020 ROLF SIEVERT AWARD

(EDUARDO GALLEGO, IRPA VP)

Prof. Eliseo Vañó

Prof. Eliseo Vañó has been appointed to receive the 2020 Sievert Award at the opening session of the 15th IRPA International Congress that will take place in Seoul in May 2020, where he will also deliver the Sievert Lecture. The Sievert Award, which honours the memory of Professor Rolf M. Sievert, leader and pioneer of radiation protection, is awarded every four years in recognition of individuals who have made outstanding contributions to our discipline. It is the most prestigious award worldwide in radiation protection. The previous recipients of the Sievert Award are: 1973 Prof. Bo Lindell (Sweden); 1977 Prof. W.V. Mayneord (United Kingdom); 1980 Dr. Lauriston. S. Taylor (USA); 1984 Sir Edward Pochin (United Kingdom); 1988 Prof. Dr. Wolfgang Jacobi (Germany); 1992 Dr. Giovanni Silini (Italy); 1996 Dr. Dan J. Beninson (Argentina); 2000 Prof. Dr. Itsuzo Shigematsu (Japan); 2004 Ing. Abel J. Gonzalez (Argentina); 2008 Prof. Christian Streffer (Germany); 2012 Dr. Richard Osborne (Canada); and 2016 Dr. John Boice (USA).

Prof. Vañó is Emeritus Professor of Medical Physics of the Department of Radiology of the Complutense University of Madrid, where promoted the creation of the Medical Physics Expert Degree and the centralized Radiation Protection and Medical Physics Services in Spain. He had been the Head of the Medical Physics Service for 34 years at the San Carlos University Hospital in Madrid and was nominated Advisor to the Spanish Ministry of Health for Radiation Protection in 2008, being part of the EURATOM Group of Experts and member of the Spanish delegation to UNSCEAR. He has led more than 30 research projects, 15 of them funded by the European Commission, mainly dealing with image quality and patient and staff dosimetry in medical imaging and interventional radiology. He authored more than 300 scientific publications included in the Web of Science.

Prof. Vañó served as the Chair of the ICRP Committee 3 (Radiological Protection in Medicine) until 2017, where he led the elaboration of numerous key reference publications since he joined it in 2001. Currently he is an Emeritus Member of the Main Commission of ICRP. Prof. Vañó has been a consultant of the IAEA for topics concerning medical exposures in the past more than 25 years and has been involved in missions to many Latin American, Asian, African and European Countries. He has contributed to many of the IAEA training packages for radiation protection in medicine. Prof. Vañó is an honorary member of the Spanish Society of Medical Physics, the Spanish Society of Vascular and Interventional Radiology and the Spanish Society of Radiological Protection. He also received the Barclay Medal of the British Institute of Radiology in 1996 and the International Union for Physical and Engineering Sciences in Medicine Awards of Merit in 2018.

HORIZON SCAN: ICRP REVIEW OF THE SYSTEM OF RP

(SIGURÐUR MAGNÚSSON, IRPA EC MEMBER)

The ICRP Main Commission has begun exploring areas of the system of radiological protection that might need further consideration. This is the beginning of an effort to develop a new set of fundamental recommendations. Similar efforts leading up to ICRP Publication 103 took about a decade. During the annual meeting of ICRP with Senior Representatives of Organisations in Formal Relations with ICRP in 2018, it was recognized:

• The current system of radiological protection works well. Stability of the system is important and there is no present need for significant change to the fundamental recommendations;

• Some simplification in the system of radiological protection may be beneficial. There are significant advantages in having a system that is more understandable;

• There is a concern due to over-conservatism, especially related to low doses, and ICRP needs to address this. Regulators and professionals also need to address the level of conservatism applied in developing standards and legislation, and in practice;

• The science underpinning the system of radiological protection is robust. Continuing advances in science must be supported and considered in the future development of the system.

Two more questions were raised at the 2019 Meeting:

• In practice, what further information is necessary for the integration of the protection of the environment in radiological protection?

• What would be the practical implications of a more individualized system of radiological protection based on variations in individual response to radiation exposure?

UPDATE ON NON-IONIZING RADIATION (NIR)

(A. LEGROS, K. HENRICHS, S. MAGNUSSON)

The IRPA Executive Council (EC) had decided to start a Task Group (TG) on Non-ionizing Radiations (NIR) to promote research in the Associate Societies (AS) on the biological effects of non-ionizing radiation in humans. IRPA AS were invited to nominate experts willing to work in this new TG. From the nominees, IRPA EC appointed Dr. Alexandre Legros as the NIR TG Chair and Dr. Julien Modolo as the Co-Chair. Both Alexandre Legros and Julien Modolo are scientists with interests related to the biological effects in humans of electromagnetic stimuli in the non-ionizing frequency range. For AS that have not yet submitted nominations to this TG, you may send to Alexandre Legros (alegros@lawsonimaging.ca) with Klaus Henrichs and Sig Magnusson in copy (klaus.henrichs@gmail.com and smm@gr.is) .

Dr. Alexandre Legros is a full-time scientist, Principal Investigator and Director of the Bioelectromagnetics and Human Threshold Research Group at the Lawson Health Research Institute. Alexandre is also Associate Professor at the University of Western Ontario, Canada and an associate scientist at the University of Montpellier, France. His research interests mainly relate to the effects of specific electric and magnetic stimuli on human brain processing, motor control and cognitive functions. He is currently secretary of the BEMS board of directors (https://www.bems.org). He is also currently co-chairing the working group on 'Merging computational and experimental approaches to resolve uncertainties related to electrostimulation threshold' within the IEEE ICES subcommittee 6: EMF dosimetry modeling with application to human exposure standards and chairing a task force on Low Frequencies recommendations. Alexandre has expertise in the fields of neuroscience, kinesiology, biophysics applied to the study of the interaction between time-varying magnetics field induced electric fields and currents in conductive tissues.

Dr Julien Modolo is a full-time tenured scientist at INSERM (Institut National de la Santé et de la Recherche Médicale, France). He actively investigates the mechanisms of electric and magnetic fields on human brain activity. The main areas of expertise of Dr Julien Modolo are neuroimaging (electroencephalography and functional magnetic resonance imaging), biophysical models of electric field/tissue interaction, and medical applications of brain stimulation.

IRPA 15
11-15 May 2020 I COEX, Seoul, Korea
Bridging Radiation Protection Culture and Science - Widening Public Empathy

The International Organizing Committee (ICOC) of IRPA15 is delighted to inform that it has just published the “2nd Announcement”. It includes a wide range of information of the congress, such as updated scientific programs, social programs, technical tour and sightseeing tour programs. For more details, please visit the official congress website (www.irpa2020.org).

The International Congress Program Committee (ICPC) has finalized the topics and invited the world’s best speakers for Plenary Talks:
1. Health Effects and Inference of Risks Due to Radiation Exposure - Peter Jacob (Helmholtz Zentrum München)
2. Future of the System of Radiological Protection - Roger Coates (IRPA), Claire Cousins (ICRP), Maria Perez (WHO)
3. Radiation Protection Culture - Helen Rycraft (IAEA), Bernard Le Guen (IRPA)
4. Non-ionising Radiation: Developing the System of Protection - Eric van Rongen (ICNIRP), Emilie Deventer (WHO)
5. Public Understanding and Communication - Vincent T. Covello (Center for Risk Communication)
6. Fukushima: Radiation Risk and Public Health - Gillian Hirth (UNSCEAR), Kenji Kamiya (Fukushima Medical Univ.)
7. Ethics - Deborah Helen Oughton (NMBU, CERAD), Kun-Woo Cho (KINS)

Also, 15 special sessions, 4 thematic sessions and 10 enhanced technical sessions are organized to cover many up-to-date issues. The ICPC has been closely discussing with session leaders and organizers to develop the sessions that can meet the participants’ needs. In addition, a collection of refresher courses will be offered to congress participants.

Other updates include:
- The “Call for Papers” deadline has been extended to the 31t of October 2019;
- The on-line registration was opened on the 1st of October 2019. Online registration provides online payment system by credit card for participants’ convenience;
- IRPA15 is running congress social network channels on Facebook, Twitter and YouTube, where congress information and news will be updated. Please share your news with colleagues and participants, and follow and like IRPA15 pages;
- IRPA15 invites companies and associations to become an exhibitor and sponsor of the congress. Sponsorship and Exhibition Prospectus is already released on the website, and don’t forget to subscribe the quarterly e-Newsletter from the website. Stay in the loop with IRPA15 news alerts.

Please save the date for IRPA15 and stay tuned for further announcement, and visit the conference website regularly! We are looking to greeting you in Seoul, Korea!

SEPR - THE SPANISH SOCIETY OF RADIOLOGICAL PROTECTION

(RICHARDO TORRES, MARIA TERESA MACIAS, EDUARDO GALLEGO)

SEPR, the Spanish Society of Radiological Protection (https://sepr.es) , founded in 1980, is a scientific and technical society whose aim is to promote and disseminate good practice and criteria of protection of people and the environment against ionizing and non-ionizing radiations. SEPR offers the opportunities for discussion and information sharing between its members, open to society as a whole, public and private companies and institutions connected with the peaceful use of ionizing radiations.
SEPR is an independent, non-profit organization that does not represent any economic or other kind of interests, except those of a strictly scientific and professional nature. Its multidisciplinary nature, reflected in the distribution by sectors of its about 650 members, assures its neutrality and independence: 24% from universities; 35% from the medical field; 11% from the nuclear and other industries; 11% from the regulator and 19% from other technical and commercial activities. Also, more than 20 private and public organizations and companies contribute to the SEPR activities as collective supporting members.

SEPR is affiliated to the International Radiation Protection Association (IRPA) and takes part actively in its activities, as well as in its governing bodies. In addition, it maintains close relations with sister societies in other countries and with the most relevant international organizations in this field, such as ICRP, IAEA, OMS, and NEA-OECD.

SEPR is structured around five Commissions and several Thematic Working Groups for the achievement of specific objectives. Between those Commissions, the Young members Commission (J-SEPR) was created in 2017, to help promoting and supporting the development of the young generation. Congresses are organized every two years, jointly with the Spanish Society of Medical Physics. Yearly, the Society organizes 3 or 4 topical workshops, seminars or training courses. It publishes a quarterly journal since 1991 “Radioprotección” and maintains a website that is a reference point for professionals and the public from all Spanish speaking countries.

SEPR also serves as a relationship framework between different professional sectors and proactively collaborates with the Regulatory Bodies and Competent Authorities. SEPR provides scientific knowledge, educational opportunities and practical approaches for radiation protection, and assists in the development of technical documents and professional standards. In 2014, a National R&D Platform in radiological protection (PEPRI) was initiated by SEPR, which serves as a forum of all the entities involved in radiation protection research; currently, it gathers 78 organizations from all the implicated sectors. SEPR also closely collaborates with other related associations, like the Spanish Society of Medical Physics, the Spanish Nuclear Society, the Spanish Society of Medical Radiology, the Spanish Society of Nuclear Medicine and Molecular Image and the Spanish Society of Radiation Oncology.

SEPR
SOCIEDAD ESPAÑOLA DE PROTECCIÓN RADIOLÓGICA

THE YOUNG SCIENTISTS FORUM AT THE ISORD-10

(RUI QIU, CHINA SOCIETY OF RADIATION PROTECTION)

The 10th International Symposium on Radiation Safety and Detection Technology (ISORD-10) was held in Taiyuan, China from July 16th to 19th 2019. On July 17th, the Youth Committee of China Society of Radiation Protection (CSRP-YC) held the "Young Scientist Forum", which was attended by more than 70 young scholars from China, South Korea, Japan, Vietnam or other countries, coming from universities, research institutes and companies. This is the first time that ISORD hosted such forum. the establishment of Young Scientist Forum will encourage young generations to devote themselves to research in radiation safety and detection.

Mr. Sylvain Andresz, Chairman of the International Radiation Protection Association Young Generation Network (IRPA YGN), congratulated the opening of the forum in the form of a recorded video. He talked about the missions and objectives of the IRPA YGN. The audience in the forum felt inspired from his talk.

The Forum exchanged 15 academic talks, covering multiple research directions of radiation safety and detection. Special guests Dr. Jeongin Kim from KARP YGN of South Korea, Dr. Noriaki Kataoka from JHPS YGN of Japan, Dr. LE Ngoc Thiem from youth federation of radiation protection of Vietnam and Dr. Rui Qiu gave theme talks respectively. The talks were New Korean Adult Lung Model for Physical Phantom Application, Surface Treatment of Shell Egg by Low Energy Electron Beam, Neutron Dosimetry for Radiation Protection in Vietnam, and Radiation Protection Studies on High Intensity Laser Facilities.

The Young Scientist Forum of ISORD-10 gave a chance for outstanding young radiation protection scholars to exchange the latest achievements in the field of radiation safety and detection and hotspot issues in-depth. It makes a positive effect in promoting exchanges and cooperation, deepening friendship with world, widening our sight and intensifying training and innovation in their career of young radiation protection personnel in our countries.

THE 12TH NATIONAL CONGRESS OF THE SFRP

(SYLVAIN ANDRESZ; JEAN-FRANÇOIS LECOMTE, CHAIR OF THE INTERNATIONAL RELATIONSHIP COMMISSION; VALÉRIE CHAMBRETTE, EXECUTIVE SECRETARY)

The 12th Congress of the French Society for Radiation Protection (SFRP) was held during 17-19 June 2019 in the maritime city of La Rochelle, famous for its oysters and rich historical heritage. The programme reflected both the weight of the history and the openness of the city. According to Mr. Didier Gay (IRSN), Chair of the Programme Committee; “the ambition that underpin the design of this programme was to ensure that all the Members of the Society can find their place”. The programme has travelled across radiation protection and also its allied fields: 11 sessions in total, contributions from the Canadian Radiation Protection Association, team coming from The Louvre Museum or experts from non-ionizing radiation etc. The younger generation was not forgotten and deeply engaged with a dedicated stand, quiz and networking event to name but three. The Henri Jammet prize, that award the best presentation from a young member of the SFRP, was given to Mrs. Annaïg Bertho (IRSN), who will represent SFRP at IRPA-15 and compete with candidates from the other Associate Societies for the Young Professional Award. The next national SFRP congress will be in Dijon in 2021!

(Mrs. Annaïg Bertho is the candidate from SFRP for the Young Professional Award at IRPA15)

WEBINAR SERIES:
DOSE LIMITS FOR THE LENS OF THE EYE

(ADELENE GAW, CRPA)

Following the changes to the International Commission on Radiological Protection's recommended dose limits for the lens of the eye in 2011, there has been much interest and discussion on the science supporting the change, implementation challenges associated with the lower dose limits, and dosimetry for the lens of the eye.

To that end, the Canadian Radiation Protection Association (CRPA) and the Canadian Nuclear Safety Commission (CNSC) co-hosted a webinar series on dose limits for the lens of the eye. Three webinars were held, bringing together expert speakers from around the world to discuss following topics:

• Scientific basis for ICRP's recommended dose limits for the lens of the eye (March 21, 2018);
• Implementation of the International Commission on Radiological Protection (ICRP) dose limits for the lens of the eye (September 27, 2018); and
• Dosimeters for the lens of the eye (June 6, 2019).

The webinars were viewed by many radiation protection professionals from around the globe. Some viewers took advantage of the opportunity to pose questions to the speakers during the question and answer periods. It was clear from the level of interest and feedback on the webinars that radiation protection professionals are taking measures to assess and optimize doses to the lens of the eye.

To view the presentations and webinar recordings, visit the website of the CRPA (Recorded webinars and presentations) or CNSC (Webinars on lens of the eye).

NEWS FROM IRPA EGYPT

(MOHAMED GOMMAA)

During the past year (October 2018 – September 2019), IRPA Egypt has conducted several activities that we would like to share with other IRPA AS:

- Several basic Radiation Protection training courses were offered;
- Two members of IRPA Egypt attended UNSCEAR 66 Meeting which was held in Vienna, Austria;
- Thanks to the efforts of Mr AbdelHai (Algeria), IRPA bulletins No15 to No20 have been translated into Arabic, which have been published at IRPA website;
- Four members of IRPA Egypt participated in the translation of ICRP Publication103 and Publication 135 into Arabic;
- The third Radiation Protection Workshop shall be held in February 2020 in Hurghada, Egypt, including several Invited Speakers from the IAEA and other international and national organizations. In conjunction with the Workshop, the 12th ESNSA nuclear conference shall be held. For more information, please contact Dr Gomma (mamgomaa@gmail.com).
- A the latest IRPA15 information were distributed to IRPA Egypt members as well as to radiation protection colleagues from North Africa and Middle East.

THE PODIUM WORKSHOP AND THE EAN WORKSHOP ON INNOVATIVE ALARA TOOLS (26 – 28 NOVEMBER 2019, ATHENS, GREECE)

(SYLVAIN ANDRESZ)

Innovations in instrumentation, computing and information technology have provided numerous tools for improving our day-to-day lives. In the same way, new and innovative approaches to radiation protection (RP) could also be developed, in particular in the ALARA process. However, as with most new technologies, issues and challenges need to be identified and tackled. The PODIUM Project and the European ALARA Network have come together to organize a joint workshop to present PODIUM results, innovative ALARA tools and discuss broadly their use in advancing RP and ALARA.

The PODIUM Workshop (26 November 2019)
The main aim of the PODIUM project is the development of an online dosimetry application based on computer simulations without the use of physical dosemeters. Real movements of exposed workers captured by tracking tools have been used together with Monte Carlo simulations for the development of the application. The methodology has been applied in two crucial workplaces where improvements in dosimetry are urgently needed: neutron and interventional radiology workplaces. The availability of advanced online dosimetry applications such as these in the radiation protection field will increase awareness among workers and should improve the implementation of the ALARA principle. During the workshop, emphasis will be given on how exposed workers can be trained by using real-time dose results to effectively apply the ALARA principle.

The EAN Workshop (27-28 November 2019)
The objectives of the European ALARA Network workshop are:
• to present and review recent and emerging "innovative ALARA Tools" used in the different steps of the ALARA process: e.g. radiological characterization and evaluation of the exposure, planning and decision phases and follow-up and feedback.
• to investigate the benefits of the tools and identify potential limits in their application;
• to disseminate the knowledge on innovative ALARA Tools in support of the ALARA process;
• to investigate how innovative ALARA Tools and innovation may (re)shape the ALARA process for the next years: evolution or revolution?

A significant part of the EAN Workshop is devoted to discussions in Working Groups (each participant can participate in one Working Group). The provisional topics for discussion by the Working Groups are:
1. Are there specific challenges in the ALARA process that may be solved by innovative "ALARA Tools" (under development or to be developed)?
2. Are there specific issues which may limit the development and/or the use of innovative "ALARA Tools" (technical, legislative, ethical etc.)? How to deal with these issues?
3. What is the role of the radiation protection professionals (RPEs/MPEs/ RPOs, ...) with respect to these tools?
4. There is currently a lot of focus on research and innovation in areas beyond that of traditional RP research, notably artificial intelligence. Does IA have the potential to shape the ALARA process in the next year?
The workshop conclusions and recommendations will summarize the main points of the presentations and the discussions held during the Working Groups. Please visit the website and register for the workshop (https://eeae.gr/alara-2019).