



IRPA Bulletin

For RP professionals, by RP professionals

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Photo by Margareta Cherestes, Romanian Society for Radiological Protection

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PRESIDENT'S BLOG

DR. BERNARD LE GUEN



Honourable members of IRPA,

Last January, I took over the presidency of IRPA with a great deal of enthusiasm and with the support of an excellent Executive Council (EC) team. During a time when travel has been difficult, the whole IRPA EC team has embraced digital tools, as have many others. We took the decision to hold an approximately 2-hour meeting every 6 weeks, from 13:00h to 15:00h to take account of time differences between North America, Europe, Africa, and Asia. That's right! The EC now includes members from every continent, so that all of you are represented.

We have only just brought the IRPA15 Congress to a close, and are already preparing for IRPA16 with the help of Kevin Nelson, our new VP for Congress Affairs. It is now the moment for you to appoint representatives who will join the Organising Committee and thus become active participants in the success of this Congress.

We must applaud the outstanding efforts of our Korean colleagues. Within the EC, Andrew Karam, our Publications Manager, is working closely with the IRPA15 Committee to give a second lease of life to numerous videos in a few months' time. And we are relaunching the IRPA TV channel on YouTube. Having prerecorded all our presentations for IRPA members "now and in the future" is a unique opportunity for a common memory, which will leave a mark for future IRPA generations.

As and when we are reflecting on the future of our profession, this is how IRPA can pave the way for the future of education and training for our young generations. I have had the opportunity to have my first meeting with Sylvain Andresz, the IRPA Young Generation Network Committee Chair. I have formally commissioned him to produce an IRPA report on how to optimise the use of digital tools, and consider how IRPA could foster the sharing of information across the associations. An interesting survey on the Young Generation Network is underway and will be presented separately.

In this regard, when I first attended a meeting of the IACRS as EC President, the IAEA presented its highly ambitious project NAVIGATOR platform, an online communication methods and tools, which was aired at the first IACRS meeting. Doctors undergoing oncology (the study of cancer) training in France today have been given access to databases which ensure they can always be updated and informed of appropriate protocols. These innovative e-learning platforms constitute a stimulus to continuing professional development and access to information.

The COVID crisis has accelerated the use of these tools which, I am convinced, will transform our approach to continuing professional development and to the establishment of a strong radiation protection culture. It is up to us to ensure that tomorrow's radiation protection training becomes a reality today.

Bernard le Guen
IRPA President



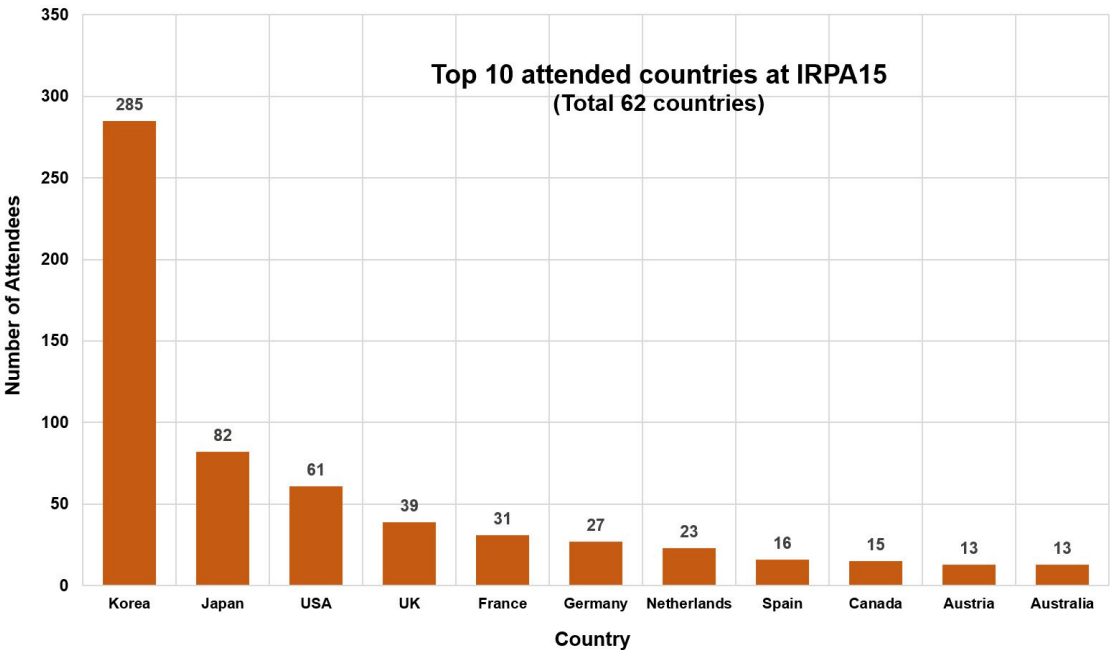
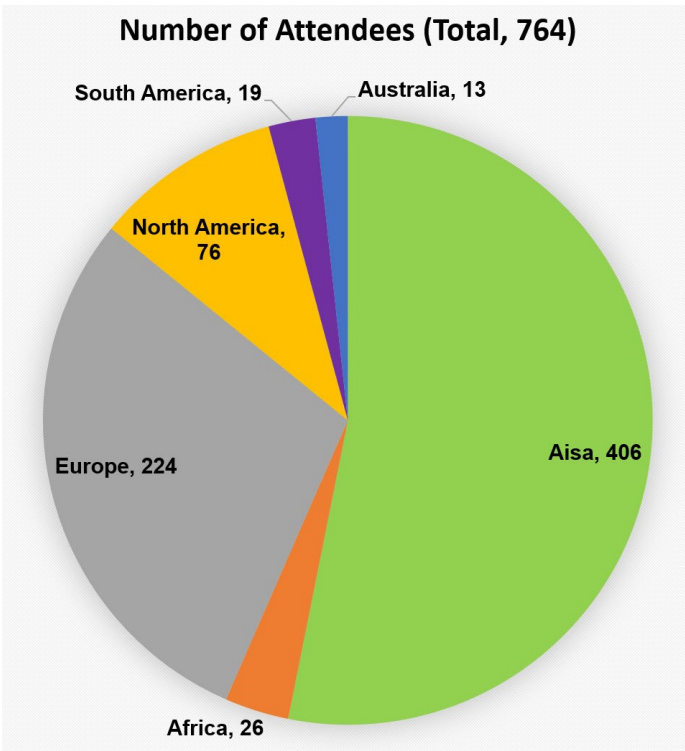
RECAP - THE 15TH IRPA CONGRESS

HEE-SEOCK LEE

IRPA15 ICOC SECRETARIAT GENERAL



IRPA 15, originally planned for three weeks from January 18 to February 5, 2021, was extended by a week and successfully came to an end on February 12, 2021. There was a total of 764 participants from 62 countries around the world, 406 of whom were from Asia, and 224 from Europe (Fig. 1). Asia and Europe had the highest contribution to IRPA15 as about 80% of the participants were from those continents. In terms of countries, we had the most participants from Korea with 285, followed by Japan with 82 (Fig. 2). There was a small number of participants, 41, from Asian countries other than Korea and Japan. This may be because many of these Asian countries do not have an association for radiation protection, or even if they do, the association is not particularly active. Although we were expecting many participants from China, only 11 participants attended due to some national policy. Moreover, because of the streaming service regulation in China, we could not help but have a small number of participants.





RECAP - THE 15TH IRPA CONGRESS

One unique feature of IRPA15 was that all events were online for the first time in the history of IRPA congresses (Fig. 3). As the participants had to be online from different time zones around the world, the total number of participants was only 50% of those of the past, when we held the event in person. In addition, it is assumed that the participation fee seemed to be a relatively greater burden than usual. If the congress could have been held 'online' on the originally planned date for in-person event, we may have been able to lower the participation fees, resulting in more participants. Furthermore, we figured out that many of the submissions dropped out as the congress was postponed by eight months.

There were 544 papers presented and 84 sessions during the congress. As COVID-19 did not seem to end, we had asked all presenters to pre-record their presentations as part of "Plan B," but less than 50% of the presenters sent the recorded version of the presentations before the deadline. As all preparations needed to be completed shortly before the congress, the organizing committee faced many difficulties. There was great pressure related to the live sessions as well, which were attempted for the first time. All committee members worked exhaustively to prevent the problems that occurred at the live sessions during the RP2020 hosted by the IAEA in last November, or the ICRP Fukushima Conference hosted by the ICRP in last December. Fortunately, IRPA15 was able to come to an end without any serious problems. However, although we tried our best to overcome the limitations of different time zones around the world, if we see the numbers related to the participation in the live sessions, the number of participants was extremely low except for limited time slots of the afternoon in Europe and of late evening/night in Asia.

Sixteen sessions, including the Sievert Lecture (Winner: Professor Eliseo Vano from Spain), were held live online, and the Opening and Closing Ceremonies were also held separately live online. In particular, there was active participation from the IAEA, ICRP, ICRU, WHO, UNSCEAR, and the WiN in the form of joint or independent sessions (presentations or panel discussions). The "Widening Public Empathy" session, one of our special sessions, drew great interest with the largest number of participants. On the other hand, it was unfortunate to see that "Bonn Call for Action Update" session, "Tolerability and Reasonableness" session, and "Developing Practical RP Culture in Society" session had fewer participants than we originally expected. The Thematic Sessions, which were grouped into themes (Ethics and RP Culture, Communication and Public Understanding, and The Future of Our RP Profession) were placed at the end of the congress, and were thus extremely helpful to summarize each theme. There were also 23 Refresher Courses for beginners and experts, and we had over 126 participants in the charged experts courses.



RECAP - THE 15TH IRPA CONGRESS

The Young Generation Network was first set up within IRPA in 2019, and we had the first YGN meeting in the form of a joint workshop with JHPS, SRP, and KARP in December 2019 at the JHPS Conference in Japan. At IRPA15, there was an independent session from the YG called “Innovation in Radiation Protection.” In addition, the YSA (Young Scientists & Professionals Awards) Competition was opened for those who were nominated by the 22 IRPA Associate Societies from around the world (Fig. 4). The honorable Top Prize was given to Ms. Chiara Magni, nominated by the Italian Association of Radioprotection (L’Associazione Italiana di Radioprotezione, AIRP).

IRPA15 YSA Winners		
Top Prize	Chiara Magni (University of Pavia, Italy)	
Second Prize	Florian Mentzel (TU Dortmund University, Germany)	
Second Prize	Hannah Wiedner (BEV, Austria)	
Third Prize	Chansoo Choi (Hanyang University, Korea)	

1. Prize 1,500 USD 1. Prize Certificate
2. Prize 1,000 USD 2. Prize Certificate
3. Prize 500 USD 3. Prize Certificate

Among the papers presented at IRPA15, the IRPA publication team is planning to submit those with distinguished academic value to the Journal of Radiological Protection (JRP). The papers nominated by the chairs of each session were reviewed and selected by the ICPC Core Group members in each topic field. After the selection, approximately 60 papers were recommended to the JRP. An additional 40 papers that gave excellent presentations are also expected to be recommended to the Journal of Radiation Protection and Research (JRPR). All other papers will be published as IRPA Proceedings and be uploaded to the IRPA15 tab on the IRPA.net website. Also, as the Secretariat received all pre-recorded videos of the presentations for the online congress, it remains to be discussed how to keep these videos including live session records so that they will be available anytime on IRPA.net. It is expected that these videos and presentations will be uploaded to IRPA.net by the first half of this year.

IRPA15 has great significance as the first ‘Online Congress’ that may not happen again in the history of IRPA. As we come to an end, we would like to thank everyone at the ICOC, ICPC, and the ICSC for working so diligently to make sure that IRPA15 was successful, as well as all of our participants, and the AS from many countries around the world for their support.





MEET THE NEW IRPA EXECUTIVE COUNCIL: BERNARD LE GUEN - PRESIDENT

BERNARD LE GUEN, MD, PHD IRPA PRESIDENT



IRPA's new President is Dr. Bernard Le Guen. Bernard is an accomplished physician, specializing in occupational medicine, and an accomplished radiation safety professional; the awards he has received from both the medical and the radiation protection communities are a testament to the respect with which he is viewed in both of these areas.

About his early career, Bernard recollects "I have never forgotten my first steps in radiation protection. I had just finished my studies at the hospital, I was familiar with radiotherapy and therefore with high doses, and as a young doctor I had joined the IRSN (French National Institute for Radiation Protection and Nuclear Safety) as a medical advisor to occupational physicians. From the very first days, IRSN asked me to give a course on internal dosimetry at the IAEA, although I was not at all a specialist in contamination and low doses. I had memorized the course, hoping that the students would not have any specific questions. It went very well and I still thank IRSN for having given me the opportunity to open up to the international world from the beginning of my career. My vocation to become president of IRPA and to have an international career was perhaps born on that day, who knows?"

Like many of us, Bernard was affected by the 2011 Fukushima accident. "In this period where we remember the terrible tsunami of March 2011 and the accident of Fukushima, a second important event was for me the publication of a joint report of the French Academy of Sciences and the Academy in Medicine. They had allowed me to lead a working group on the health effects of the Fukushima accident, a way for me also through this dramatic event to reflect with many experts in many fields related to radiation protection to achieve a common report. It is also one of the lessons for IRPA, never work alone and see how by associating us we can reflect and bring a reflection for our colleagues. It is also this experience that led me to propose on behalf of IRPA to IOMP, WHO and the AIEA to work together on a document on enhancing the radiation safety in Health Care. It was during the IRPA regional congress in Malaysia in 2014. By joining forces, we better serve our community of radiation protection professionals."

Over the years, Bernard has held a number of positions, retiring as the Senior Vice President in charge of Radiation Protection and Industrial Safety at the Electricite de France's (EDF) Nuclear Power Generation Division and today VP in charge of international relation and fellow expert in Health and Radiation Protection for the EDF group. In addition to his work for EDF, Bernard has also been impressively active in our profession, serving IRPA in a number of capacities as well as serving as Chairman of the CEPN Governing Board, serving as a member of a number of governmental advisory groups, and as a member of the education advisory board of the Doctoral School of Oncology of the Institut Gustave Roussy at the Paris Saclay University.



MEET THE NEW IRPA EXECUTIVE: CLAIRE-LOUISE CHAPPLE

**CLAIRE-LOUISE CHAPPLE, PHD, CRADP, CSCI,
FSRP FIPEM
EXECUTIVE COUNCIL MEMBER**



Dr. Claire-Louise Chapple was nominated for a position on IRPA's Executive Council by the United Kingdom's Society of Radiological Protection in recognition of her expertise and years of exceptional service to the SRP and to our profession.

After completing a degree in physics at Cambridge University, Claire-Louise went on to study for a Masters in Medical Physics at the University of Aberdeen before starting work with Newcastle upon Tyne Hospitals NHS Foundation Trust, where she is now Head of Imaging Physics and Radiation Safety and appointed as both a Radiation Protection Expert and Medical Physics Expert. Although she claims that "My path into radiation safety was fairly mundane, once I had given up my early dream of being a ballerina," she also noted that "I did once take my 3-week-old third son to a conference with me while on maternity leave, so that I could keep up with CPD (Continuing Professional Development). It caused a bit of a stir at the time but, disappointingly, didn't seem to start a new trend."

Claire-Louise has accomplished a tremendous amount already in her career, both within Great Britain and internationally. In the UK, she has served as a journal reviewer, as the author of a number of papers on various aspects of medical radiation safety, and in various positions within the SRP, most recently as Honorary Secretary; internationally she has also done considerable work with the IAEA as a lecturer on medical physics and radiation safety in Africa, Asia, and the Middle East; as a consultant to help draft guidance documents in the area of pediatric diagnostic x-ray dosimetry, and as a participant in expert missions on imaging safety in Uganda and the United Arab Emirates. To that can be added international work with IRPA, as an invited speaker at international conferences, and participating in a series of workshops on Radiation Safety Culture in Healthcare that were hosted by IRPA, IOMP, WHO, and IAEA. To these professional accomplishments she is working on achieving a more relaxing personal goal as well – "I have, in recent years, acquired a drum kit which I am attempting to learn to play."

In her new position within IRPA, Claire-Louise notes that "I have particular interest in continuing to develop the concept and promotion of radiation protection culture, along with issues of training and education in radiation protection within different communities."



MEET THE NEW IRPA EXECUTIVE: KEVIN NELSON - CONGRESS AFFAIRS

KEVIN NELSON, PHD, CHP VICE PRESIDENT FOR CONGRESS AFFAIRS



No sooner had IRPA 15 ended than preparations for IRPA 16 began; leading this work is Dr. Kevin Nelson, IRPA's new Vice President for Congress Affairs.

Like most of us in radiation protection, Kevin's entry into the field had a crooked path. He had wanted to become a medical doctor but after failing to get into medical school on his initial attempt, he decided to get a Master's degree in Environmental Health. He would then try to get into medical school again. But he had to choose a major. In the United States, the Clean Air Act had been enacted a few years earlier. Unfortunately, on the summer day he decided to visit the department, the Air Pollution professor was not present. When asked if he had another interest, Kevin had remembered that Three Mile Island had just occurred so he decided he would inquire about a Health Physics major. Fortunately, the Health Physics professor was in that day and after speaking to Kevin for 45 minutes, Kevin knew what he wanted to do for the rest of his life.

After several positions in both academic/medical and industrial radiation protection, Kevin began working for the Mayo Clinic in 1995, returning to medical radiation safety, and he's worked at Mayo ever since – working as a medical physicist and Radiation Safety Officer at the Mayo Clinic in Jacksonville Florida and then moving to Arizona in 2014, to work as a medical health physicist and Radiation Safety Officer at the Mayo Clinic in 2014.

Kevin's been doing more than managing Mayo's radiation safety programs; in Florida he worked on a team that developed new methods for radioactive breast seed localization and radioembolization, and helping to design, commission, and license a new proton beam and cyclotron facilities in Arizona.

Kevin is equally active outside of work – he's been involved in the Health Physics Society for over two decades, serving on a number of committees (chairing some), serving on the Board of Directors, serving as HPS President in 2007-2008, and serving as an associate editor for the Health Physics Journal. His contributions to the science and profession of radiation safety was recognized by being named a Fellow of the HPS in 2008.



MEET THE NEW IRPA EXECUTIVE KEVIN NELSON - CONGRESS AFFAIRS

Kevin is married to Mara Scaramella, a Nurse Practitioner, and has a daughter Alexis, in her first year of college. In his spare time, Kevin likes to hike in the mountains in Arizona and bike. He also enjoys collecting sports memorabilia, and woodworking.



With regards to the piece picture here, he noted “My parents moved from the farm into the small rural Minnesota town where I grew up. Sewer work required that some black walnut trees come down. I knew a guy in the neighboring town who owned a portable mill. I took a week vacation from Mayo Clinic Jacksonville and spent several days in MN felling black walnut trees, sectioning them to 8 ft length and then sawing the logs into planks which were eventually air kiln dried for 8 months. I knew a person from my home town who was a trucker and he added the wood to his next haul to Florida. The piece is a cross between an 18th century Chippendale highboy and a secretariat. I designed the piece in my head and transferred my ideas to paper and spent a year, in my spare time, making the piece. Woodworking is the most artistic thing I do.”

Kevin's advice to young professionals, 'A broad-based education helps open doors. Have the courage to step through when opportunity knocks'.



ASSOCIATE SOCIETY HIGHLIGHTS: ROMANIAN SOCIETY FOR RADIOLOGICAL PROTECTION

WWW.SRRP.RO

CONSTANTIN MILU, PH.D.
RSRP PRESIDENT
DECEMBER 2020
BUCHAREST, ROMANIA



The Romanian Society for Radiological Protection (RSRP) is a professional association of radiation protection specialists, physicians, physicists, chemists, biologists, engineers from Romania. It was founded on May, 30 1990 and currently has 70 active members from the across the country. The RSRP became an IRPA Associate Society in 1992.

To celebrate its 30th year of activity, RSRP organized a special National Conference on Friday November 20, 2020, held online due to the COVID-19 pandemic. The Conference included ten presentations on “History of SRRP/IRPA” and “Scientific Works”, a Round Table with MEDIA participation regarding “Radiation Safety Culture” and a special session commemorating five former important SRRP personalities, Prof. Mircea Oncescu, Phys. Petrică Șandru, Prof. Dr. Constantin Cosma, Dr. Laszlo Toro and Dr. Leon Grigorescu. The conference logged between 65 and 94 simultaneous participants in the Virtual Space, details of which can be found on the RSRP website.



**RSRP PRESIDENT CONSTANTIN MILU AND SOME OF THE
MANY ONLINE PARTICIPANTS IN THE RSRP'S 30TH
ANNIVERSARY CONFERENCE**



ASSOCIATE SOCIETY HIGHLIGHTS: ROMANIAN SOCIETY FOR RADIOLOGICAL PROTECTION WWW.SRRP.RO

Romania is a lovely nation located in southeastern Europe, bordered by Moldova, Ukraine, Hungary, Serbia, and Bulgaria; and with a history (and a prehistoric legacy) that goes back millennia and that includes the earliest known Homo sapiens remains in Europe, Greek and Roman colonies, invasions by the Mongols, Huns, and Goths, and millennia of other tumult.



Today, while still a developing country, Romania has a good (and growing) economy and ranks “very high” among the top 50 nations on the Human Development Index. Geographically, the center of Romania is dominated by the rugged Carpathian Mountains with forests, hills, and steppes covering the rest of the nation.



SHEPHERD BOY (PHOTO BY RSRP MEMBER
MARGARETA CHERESTES)



A YOUNG NUN AT A SMALL MONASTERY IN
NORTHERN ROMANIA (PHOTO BY RSRP
MEMBER MARGARETA CHERESTES)



UPDATE ON THE EGYPTIAN RADIATION PROTECTION SOCIETY

MOHAMED GOMAA

During the second half of 2021 and first quarter of 2021, the Egyptian Radiation Protection Society participated in several international activities that were carried out online.

Holding both IRPA General Assembly and the IRPA 15 Congress in the first quarter of 2021 is a significant achievement and it is impressive that everything went so smoothly. In fact, the only disappointment was that most of the participants were unable to see Seoul, South Korea. As participants, we are looking forward for the publication of the IRPA -15 proceedings. The video presentations were superb, and they covered a wide variety of radiation protection topics as well. And now, we are waiting for the regional activities in 2022!

In addition to attending IRPA 15, my colleague and I also translated IRPA Bulletin 28 into Arabic.

As Vice President for the International Radiation Physics Society (IRPS) for Africa and Middle East, I received a request from IRPS Newsletter editors to write a short article about what I did during the year of the epidemic. As usual IRPS held its Council meeting online and the newsletter released contain views of the council members. The next IRPS Symposium shall be held in Malaysia in Dec. 2021.

IAEA activities also, went as usual, including my participation in the International Conference on Radiation Safety (IRSC) and a technical meeting on Radiation Protection Education and Training for health professionals. Both of these were quite interesting and informative.

I am also the Egyptian representative to the United Nations Scientific Committee of Atomic Radiation (UNSCEAR), which had several online meetings, including a pre-session meeting in July and the annual meeting in November. In the annual meeting, UNSCEAR activities in 2019/2020 were reviewed, the publication of three documents was approved. These documents dealt with medical radiation exposure, Fukushima, and the biological effects of radiation exposure. Furthermore, UNSCEAR's ongoing activities were written in our report to UN General Assembly. In addition to this work, two more activities were completed in March 2021:

- An online webinar on Fukushima and
- An online webinar for national contact persons (NCP) for an UNSCEAR global survey on public radiation exposure.

I am pleased to see how well the different international organizations were working together and participating in all of these activities, in particular the WHO, the ICRP, IOMP.



IRPA GUIDANCE ON PUBLIC ENGAGEMENT



IRPA

INTERNATIONAL RADIATION PROTECTION ASSOCIATION

PRACTICAL GUIDANCE FOR ENGAGEMENT WITH THE PUBLIC ON RADIATION AND RISK



Most of us have spent a fair amount of time talking or writing about radiation and its risks to people who don't understand it. These people can be the media, but they can also be our neighbors, the person sitting next to us on an airplane or at the bar, or anybody else who asks us what kind of job we have. Or, of course, the people we're communicating with might be reporters, authors, those attending a public meeting, patients, or members of the public calling their government's radiation experts.

Not only that, but many of us also write for the public – magazine articles, for example, or books...as well as blogs, social media posts, websites, fact sheets, and more. The problem is that, while it's easy to write materials for our colleagues, writing for people who aren't radiation protection professionals or scientists does not come as naturally to us and it's harder to get right. As just one example – if you mention to a colleague that the risk of developing a fatal cancer from a particular radiation exposure is 1×10^{-6} they are likely to focus on the 10^{-6} and will conclude that the risk isn't very likely to affect them; give the same number to a non-scientist and they'll focus on the "1" and are likely to feel a bit uneasy.

And then we have to consider that radiation is increasingly important around the world. Consider the ubiquity of medical radiation – nuclear medicine, radiation oncology, various x-ray modalities are available to a majority of people on Earth; industrial radiography, well logging, and industrial process control gauges are widely used; nuclear power remains virtually the only reliable source of CO₂-free baseline power (not to mention that it already provides more than 10% of global electrical power); as well as the ever-present concerns about radiological and nuclear attacks. As knowledgeable professionals, we have an obligation to share our knowledge and expertise to help others to better understand radiation and its effects. The problem is that we are accustomed to communicating with our colleagues, not to those who lack our knowledge and our professional vocabulary.



IRPA GUIDANCE ON PUBLIC ENGAGEMENT

Lucky for us that IRPA recently published a wonderful 44-page document that's chock-full of information on just this topic!

This guidance was developed with two objectives in mind; to help all of us in our profession to be more enthusiastic public advocates of radiation protection, and to provide you with the information, techniques, and experiences that will help you to do so.

IRPA's Practical Guidance for Engagement with the Public on Radiation and Risk offers a great deal of solid information that's aimed at people like us – those who feel quite comfortable with numbers, facts, and problem-solving but who might not be equally adept at addressing people's fear (especially if we feel them to be unreasonable or illogical), illogic, and people making decisions based on their "gut feel" rather than through some sort of problem-solving methodology.

There is also a very nice chapter that goes through some specific circumstances many, if not all of us will be called upon to communicate about – medical radiation exposure, radon, emergencies, and so forth. And it wraps up with a nice list of references and some helpful appendices to round things off.

IRPA encourages the Associate Societies to develop effective tools for enhancing the public's understanding of radiation risk through the sharing of good information, good work practices, and high-quality resource materials. So, if you – or your radiation protection society – are involved in communicating with the media or with the public, you need to read this short (44-page) document. It will stand you in good stead.



"Since I was x-rayed today,
can I stay up and see if I glow in the dark?"

A.J. Toos, 1991



LET'S BE CLEAR: PRACTICAL ADVICE TO HELP SCIENTISTS WRITE WITH CONFIDENCE

MICHELLE BOULTON, [3C PUBLICATIONS](#)

This article was originally printed in the [Canadian Radiation Protection Association \(CRPA\) Bulletin](#)

I'm not a scientist, but if you're reading this, chances are pretty good that you are.

There's also a pretty good likelihood that you're not crazy about writing or, at the very least, you're not very confident about your writing abilities. You're a scientist, after all, not a writer!

And yet, clear and effective writing is an increasingly important skill in a science career. Like it or not, you have to write all the time—proposals, reports, training material, presentations, even mundane email correspondence . . .



Unfortunately, the education and training of scientists are often so overwhelmingly committed to the technical aspects of science that the communication arts are neglected or ignored. In short, many good scientists are poor writers. Certainly, many scientists do not like to write.

~ Robert A. Day

How to Write and Publish a Scientific Paper

In his recent Bulletin article, "[Fear—Why Radiation Safety Professionals Need to Address Public Fear with Understanding](#)," Stéphane Jean-François reminded us that "sound expertise and clear communication of facts are a good start to mitigate fear," but "a simple misinterpretation of a fact by Joe or Jane Public replaces Bergonié and Tribondeau's law of cell radiosensitivity in less time than it takes to type 240 characters."



Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.

~ Marie Curie

It has never been more important for people to understand scientific truths, and yet "fake news" conspiracies and alternative facts undermine us at every turn. Even when information comes from a reliable source and the data is accurate, it's hard to trust what we read when we can't understand the writing.

Clear and effective science writing, especially when you're trying to communicate beyond your peers to broader, non-scientist audiences can

- make science more accessible,
- build support for science,
- promote understanding of the wider relevance of science to society, and
- encourage more informed decision-making at all levels.



LET'S BE CLEAR

MICHELLE BOULTON, 3C PUBLICATIONS

When writing isn't clear, what you're trying to say may be misunderstood, or the significance of what you are saying may be lost. In a safety situation, that miscommunication can have serious, sometimes deadly, consequences.

In his [November 2019 President's Message](#), Ed Waller talked about the reasons why it's "sometimes difficult for radiation protection and health physics experts to adequately explain radiation risk to the public and the media." He said radiation safety professionals "are good at understanding the technical side of radiation exposure, statistics, and uncertainty, but . . . are often not good at translating these important technical concepts into readily digestible (yet accurate) explanations for the non-technical expert."

Among his recommendations, Ed encouraged radiation safety professionals to take communications courses to improve their skills in this area. That article inspired me to launch this series for the Bulletin. I will be sharing some practical advice to help you improve your writing and communicate more effectively and more confidently.

As a non-scientist editor working for CRPA, my job is to help Bulletin contributors tell their stories in a clear and compelling way. I may not always catch a technical term that is used incorrectly, but I will know if you've described it well enough for most people (even non-scientists like me) to understand it.

Jargon—Overcoming the Curse of Knowledge

Perhaps the best place to start this series is with a discussion about technical jargon.

As a scientist, you use a lot of complex, technical language (jargon) in your work that you and your colleagues all understand. In fact, many of the terms you use impart a precise meaning and can communicate complex concepts quickly and clearly. Essentially, your technical jargon is like a shorthand, a secret code that all of the members of a club understand.

Using technical jargon with other scientists in your field who understand the same language is perfectly acceptable—encouraged, even. The problems arise when you're trying to communicate with people who don't understand your jargon.

Have you ever heard of the "curse of knowledge"? It's a cognitive bias that causes you to assume other people know the same things you do. Your jargon is so familiar to you that it can be hard to identify terms that might not be easily understood by others.

Once you know something, it's hard to remember what it was like to not know it. Your knowledge has "cursed" you and made it more difficult for you to share what you know with others.



LET'S BE CLEAR

MICHELLE BOULTON, 3C PUBLICATIONS

So, how do you get past your curse of knowledge? The first step is to be aware that it exists. Think about your audience and what might not be familiar to them. Then take a critical look at your writing and try to pick out the terms that might cause confusion or misunderstanding.

To demonstrate, let's look at a very commonly understood term in radiation protection: dose.

The Health Physics Society defines [dose](#) as “a general term used to refer to the effect on a material that is exposed to radiation. It is used to refer either to the amount of energy absorbed by a material exposed to radiation or to the potential biological effect in tissue exposed to radiation.”

Among a general audience, a more common understanding of dose might be the amount of a medicine or drug someone takes at one time.

A dose of medical radiation is not the same as a dose of medicine. As a radiation protection specialist, you will inherently understand this, but you will have to account for a reader who is thinking of a dose of medicine.




Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone.

~ Albert Einstein

The Evolution of Physics

Whenever possible, I encourage people to use simple, commonly understood words. In science writing, that's not always possible.

When you can't get around using a technical term, explain it. The goal is not to “dumb down” your writing so that it is no longer accurate, but rather to enlighten the reader and share your ideas clearly so that they can understand your message.



Most of the
fundamental ideas of science
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as a rule, be expressed in a
language comprehensible
to everyone.

Albert Einstein
The Evolution of Physics

What's next?

In upcoming issues, I will explore other ways you can make all of your writing, but particularly your science writing, clear and effective.



ICRP 2021 INTERVIEW: CHRIS CLEMENT

Chris encourages you to participate in ICRP 2021!

"If you're into radiological protection and can get to Vancouver for ICRP 2021, do it! Whether you can or not, promote your work and ideas through an e-poster! The more you participate, the better we can make the System of Radiological Protection for the next generation."



Chris Clement has been Scientific Secretary of the ICRP since 2008 and is the new IRPA VP. He has an impressive career in radiological protection with more than 30 years of experience. Chris encourages you to attend ICRP 2021 as it is a great opportunity to meet colleagues, ICRP members and other top international experts. In addition, the quality of the programme is extremely high. Chris is most looking forward to discussions with friends and colleagues, old and new, for the first time in a long time without face-to-face meetings.

Discussions on the review and revision of the System of Radiological Protection will be a highlight. The ICRP recognizes the importance of hearing from as many people as possible on what needs improvement in order to ensure it remains fit for purpose for the next couple of decades.

Chris is also excited about the potential of e-posters. Say goodbye to a room filled with screens of static PDFs – the new platform allows posters to be viewed anytime on your phone, tablet or laptop. Poster creators can embed videos, weblinks, surveys and other interactive content to present their work in whatever way they feel is best. Viewers can strike up conversation threads with the author or other viewers, and can even save copies of the poster to bring back to their institutions and continue conversations after the conference is over.

The 6th International Symposium on the System of Radiological Protection (ICRP 2021) will take place November 1-4 in Vancouver, Canada. For more information visit the website.

1. What makes ICRP 2021 such an attractive event?

The ICRP Symposium is only held once every year and it moves around the globe. So, especially when it comes to your part of the world it's a great opportunity to meet with colleagues, ICRP members, and other top international experts. The quality of the programme extremely high.

2. What are you looking forward to most?

Discussions with friends and colleagues, old and new, for the first time after a long time without face-to-face meetings.



ICRP 2021 INTERVIEW: CHRIS CLEMENT

3. What are you looking forward to discussing with others? What are you looking forward to sharing in your presentation? Why is this important to the radiation protection community or the system of protection? Please elaborate.

I look forward to discussions on the review and revision of the System of Radiological Protection. We need and want to hear from as many people as possible what they think needs improvement to ensure it remains fit for purpose for the next couple of decades.

4. Discuss some highlights for you that you are anticipating (e.g., connecting with international colleagues, socializing at a conference for the first time since before the COVID-19 pandemic, specific talks, specific discussions, specific innovative developments, etc...)?

I'm excited by the potential of e-posters. The new technology will allow people to present their work in whatever way they feel is best, through text, images, and/or video. Opening this up not only to people who are there in person but also those who aren't is a great way to engage with people who can't make it to Vancouver. I hope we'll be able to make it easy for people to connect through e-posters even without a traditional physical poster display.

5. What topic(s) do you think will generate the most discussion?

I expect discussions will be particularly wide-ranging during this Symposium, as ICRP is focusing on gathering thoughts to build a programme of work for the coming years.

6. What do you think are the biggest challenges in the nuclear sector or radiation protection?

Radiological protection of astronauts during deep-space missions is a problem that now limits what is possible. Tackling this challenge also helps us look critically at the way RP works now, leading to innovations that may significantly improve RP on Earth. More down-to-earth, we all need to be thinking about how to support and work together with our counterparts in developing countries where RP infrastructure is not the same as in the developed world to ensure everyone is protected.

7. What do you envision for the nuclear sector or radiation sciences in the next 5-10 years?

I expect continued innovation in the way radiation is used in medicine, leading to better health outcomes and new RP challenges. As well, increased activity on small modular reactors means a need for renewed emphasis on radiological protection for this new style of nuclear power.

8. Is there anything specific you would like to say to encourage the radiation protection community to attend ICRP 2021?

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UPCOMING WEBINARS AND SYMPOSIA

The Society for Radiological Protection will be hosting two free upcoming webinars:

Measuring the Invisible - Activity Assessment of Radioactive Waste

1 April 2021, 12:00 - 13:00 (BST)

Presented by Stephanie Bloomer (Urenco Nuclear Stewardship)

Radiological Risk Assessment

22 April 2021, 12:00 - 13:00 (BST)

Presented by Mark Bradley (STFC)

The SRP will also have some chargeable online events that will be released shortly.

KARP-JHPS Joint Symposium

Fukushima 10 years: Lessons Learned and Radiological Environmental Impact

March 11, 2021 (Thu) 14:00-18:35

Live Webinar using ZOOM (Simultaneous Interpretation)

ZOOM (Click Link or Check ID/PW)

Meeting ID:

PW:



KARP
Korean Association for Radiation Protection



On March 11th, 10 years from Fukushima accident, KARP (Korean Association for Radiation Protection) and JHPS (Japan Health Physics Society) opened a Fukushima special symposium jointly. In the pure scientific view, both societies reviewed the lessons learned and radiological environmental impacts at two neighbor countries for last 10 years after Fukushima Nuclear Power Plant Accident and discussed the future collaboration to prepare against such an emergency situation. The symposium was held online Zoom webinar with simultaneous interpretation from 2 pm to 6:35 pm at March 11th. Five presentations with several subjects like "Response to radiological disaster", "Large scale environmental radiation monitoring after Fukushima accident", and "Radiophobia" were given by professionals of KARP and JHPS, and one and half hour panel discussion followed. More than 120 participants including the media attended online and lots of questions rushed. The joint symposium was a very profitable and memorial event to improve radiation protection culture and practices including public understanding in Korea and Japan.