

NUMBER 10, OCTOBER 2021

REPROLAM WEBINAR

TOOL KIT FOR THE IMPLEMENTATION OF THE 10 ACTIONS OF THE CALL OF BONN

October 28, 2021- 1:00 p.m. (Brasília time)

The International Atomic Energy Agency (IAEA) held the "International Conference on Radiation Protection in Medicine: Setting the Stage for the Next Decade" in Bonn, Germany, in December 2012, with the specific purpose of identifying and highlighting issues arising from the radiation protection in medicine. The conference was co-sponsored by the World Health Organization (WHO), hosted by the Government of Germany through the Ministry of the Environment, Nature Conservation and Nuclear Safety, and 536 participants and observers from 77 countries and 16 organizations attended. An important achievement of the conference was the identification of responsibilities and a proposal of priorities for stakeholders in radiation protection in medicine for the following decades.

The Bonn Call to Action established 10 main Actions, and related subactions, that were identified as essential to strengthen radiation protection in medicine in future decades.

This webinar organized by REPROLAM will present you with an online platform that offers resources to implement in practice the aforementioned 10 Actions of the Bonn Call, seeking to improve radiation protection in medicine at the end-user level.



Dr. Alejandro Nader IAEA Specialist in Radiation Protection in Medicine



Dra. María del Rosario Pérez Department. of Public Health and Environment of the World Health Organization (WHO)



Cinthia Papp Master in Medical Physics Radiation protection area in radiodiagnosis and nuclear medicine (Argentina)

You can access it through the following link: meet.google.com/vxw-hmpp-ghr



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REPROLAM ADS NEW INCORPORATION TO THE REPROLAM DIRECTIVE COMMITTEE

We are pleased to present **Mr. Juan Carlos Mora** who will be the new IAEA Radiation Safety and Monitoring Program Officer and will be in charge of the national and regional projects underway. **Juan Carlos Mora** is Master in Physical Sciences (U. Valencia), DEA in Industrial Engineering (UNED) and European Expert in Radiological Protection (INSTN-CEA).



He has worked for about 20 years in different aspects of PR, including radiological surveillance of workers and the environment, developing and applying methodologies and mathematical models for different types of exposure situations and radioactive waste management, both in nuclear and radioactive facilities, as related to NORM industries. Since 2004 he has been working in the Unit for Radiological Protection of the Public and the Environment and since November 2020 in the Laboratory of Environmental Radioactivity and Radiological Surveillance, both of CIEMAT. In September 2021, it became part of the Radiation Monitoring and Radiation Safety Section (SMRS / NSRW) of the International Atomic Energy Organization (IAEA).

He has participated in various national and international research projects (NORMIMA, ALLIANCE, STAR, COMET, TERRI-TORIES), being the principal investigator for Ciemat in TERRITORIES. He has been Radiological Safety Officer of the "International Installation for the Irradiation of Materials for Fusion" (IFMIF) and responsible for the Spanish group for Radiological Safety of the fusion project "DEMOnstration Power Plant" (DEMO). He is currently Officer of the Program of Radiation Safety and Monitoring at the IAEA.

He has participated in IAEA international projects such as EMRAS, MODARIA or INPRO, as well as in more than 20 international missions organized by the Agency, related to radiological evaluations. Within the MODARIA (2012 - 2015) and MODARIA II (2016 - 2019) projects, he has led Work Package 5 on "analysis of variability and uncertainties for evaluations of radiological impact due to routine discharges of radionuclides" of MODARIA I, and Work Package 3 "evaluations and control of exposures to the public and biota for planned discharges to the environment" of MODARIA II.

He has taught in various courses and university master's programs in Nuclear Sciences and Technologies and Radioecology at various universities (Polytechnic University of Madrid, Polytechnic University of Barcelona and University of Life Sciences of Norway) and at Ciemat and has organized several courses and conferences on the subject NORM.

He has published more than 30 articles in national or international magazines, more than 120 technical documents, 10 book chapters and has presented more than 30 papers at national and international conferences. He is a reviewer for several international scientific journals. He is a co-author of the CROM code for dose assessments due to routine discharges, which incorporates the IAEA SRS-19 guide models and which integrates RP to humans and biota.

He is also an active member of the SEPR in various positions (drafting committee, coordinator of its website, coordinator of the Society's Radioprotección magazine, coordinator of the NORM Working Group since 2015 and president of the scientific committee of the SEPR congress - Burgos 2019). Lastly, he has been an advisor to the Spanish representation at UNSCEAR from 2016 to 2021 (since joining the IAEA, he continues to be an observer of the UNSCEAR Sources and Public Exhibitions project).



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REPROLAM ADS MODIFICATION IN THE STATUTE OF THE OPTIMIZATION NETWORK OF OCCUPATIONAL RADIOLOGICAL PROTECTION IN LATIN AMERICA AND THE CARIBBEAN (REPROLAM)

Due to the fact that the activities of the network are a process of constant fluctuation and growth, some articles have been modified within the statute of the Network, in order to promote changes that will help today and in the future, to the continuous improvement of our society.

The modified points are:

CHAPTER III

ART. 8: The Directive Committee will be made up of five (5) members, who must be from five different countries and 1 representative of the IAEA who will be the Technical Officer of the regional and national projects that cover the area of Occupational Radiation Protection in the region.

ART. 9: The election of the Directive Committee will be held every **3** years by vote of the members of the network. Any effective member of the network can be proposed to serve on the Directive Committee.

SINGLE PARAGRAPH ADDITION

<u>The Directive Committee may designate one or more advisers from an international, regional or as neces</u> <u>sary organization to support the activities of the NETWORK</u>

For more information you can find the corresponding document on our website: www.reprolam.com





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ICRU Report 95:

New operational quantities for external radiation protection

Speaker: Dr Thomas OTTO 12 October 2021 12 :00 – 13 :30 UTC

ICRU REPORT 95: NEW OPERATIONAL QUANTITIES FOR EXTERNAL RADIATION PROTECTION 12 OCTOBER 2021 - 12:00 - 13:30 UTC

SPEAKER: DR THOMAS OTTO

Limitation and optimization of exposure in radiological protection are based on the quantity Effective Dose for the whole body, and Equivalent Dose, for single organs, summing the effects from external and internal exposure. These protection quantities defined by the ICRP are not measurable, and the ICRU defines operational quantities for external radiation in which monitoring instruments personal dosimeters are calibrated. The presently used operational quantities personal dose equivalent Hp(10) and ambient dose equivalent H*(10) give reasonable estimates of the protection quantities in broad energy spectra of photons or neutrons, but they are not well-suited to high-energy radiation fields in excess of a few MeV. Furthermore, their relation to the protection quantities is complex, and conversion coefficients for dosimeter calibration are published only for photons, neutrons and electrons.

The recently published ICRU Report 95 proposes a set of new operational quantities, directly related to effective dose and absorbed dose. Conversion coefficients for the proposed quantities are made available for an extended range of particles and for a range of energies extending from a few keV up to 50 Mev, and in some cases, to 200 GeV.

The presentation details the technical and conceptual shortcomings of the present operational quantities. It then introduces the proposed operational quantities, which are directly related to the protection quantities. This entails conceptual simplification and metrological improvements with respect to the present quantities. Finally, I will highlight some consequences of the new quantities on the response and futures design of radiation protection monitors and dosimeters.

Please complete the form to register. The link to join the meeting will be communicated a few days before the webinar.

https://form.jotform.com/BIPM/registration-webinar-icru-report



NUMBER 10, OCTOBER 2021

SPANISH SOCIETY OF MEDICAL PHYSICS "CYBER KNIFE PRECISION THERAPY COURSE" Online Symposium From October 18 to 19, 2021



ORGANIZERS

Radiation Oncology Service and Radiation Physics Service Ramón y Cajal University Hospital, Madrid

COORDINATORS

Dr. Feliciano García, Radiophysics Service. Ramón y Cajal University Hospital, Madrid Dr. Sonsoles Sancho, Radiation Oncology Service. Ramón y Cajal University Hospital, Madrid

PROGRAM

OCTOBER 18 - 16: 30-18: 30HS

TABLE I - Technological aspects

- Moderator: Dr. Francisco Fayos, Hospital Ruber Internacional
- * Introduction CyberKnife S7 Accuray
- * Planning and quality control with CK Dr. David Sevillano, Ramón y Cajal University Hospital

TABLE II - Extracranial SBRT

- Moderator: Dr. Jesús Blanco Suárez, University Hospital of Gran Canaria Dr. Negrín
- * Prostate Cancer Dr. Rafael García, Hospital Ruber Internacional
- * Lung Cancer Dra. Castalia Fernández, GenesisCare
- * Abdominal tumors: liver / pancreatic lesions Dra. Carolina De la Pinta, Ramón y Cajal University Hospital

OCTOBER 19 - 16: 30-18: 30HS

NERVOUS SYSTEM RADIOTHERAPY

Moderator: Dr. Eva Fernández Lizarbe, Ramón y Cajal University Hospital and Dr. Luis Lorenzana, Genesis Care *Intracranial Injuries*

- * Cyberknife Radiosurgery for primary brain tumor Dr. Umberto Fornezza, ULSS8 Ospedale San Bortolo
- * MAV Dra. Raquel Cabrera, University Hospital of Gran Canaria Dr. Negrín
- * Neurinomas and other benign tumors- Dr. Raquel Cabrera, University Hospital of Gran Canaria Dr. Negrín
- * CyberKnife functional neuro-radiosurgery, an overview Dr. Marcello Marchetti, Neurological Institute C. Besta Spinal / spinal injuries
- * Vertebral metastases Dr. Vladimir Suarez, GenesisCare
- * Intramedullary injuries Dr. Rafael García, Hospital Ruber Internacional

For more information: https://sefm.es/eventos/curso-terapia-precision-cyber-knife/



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Sociedad Española

SPANISH SOCIETY OF MEDICAL PHYSICS de Física Médica PATIENT SAFETY IN EXTERNAL RADIOTHERAPY | 2nd EDITION Online course From October 15 to November 14, 2021

Course objective

• Introduce the culture of patient safety to professionals dedicated to External Radiation Therapy (RTE).

• Provide tools to implement reactive and proactive methodologies to improve patient safety as an integral part of quality management in RTE.

Who is it for

Aimed at specialists in radiation oncology, specialists in hospital radiophysics and senior technicians in radiation therapy and dosimetry. Enrollment for multidisciplinary groups from the same hospital is promoted.

Course format

12 hours of online theory deferred + 6 live online practices. The estimated time of the course for students is 30h considering the exercises to be solved.

To pass the course

It will be necessary to have completed 100% of the online modules, have presented the practical exercises and correctly answer at least 80% of the self-assessment questions of each module, each student will have two attempts to complete the questionnaire.

Requested Credits for Continuing Education for Healthcare Professionals at the national level (EVES) and at the European level (EBAMP) .A certificate of attendance will be sent at the end of the Course. However, the credit certificates, due to their evaluation time, will be sent about 8 months later. We regret the inconvenience, outside the organization.

For more information: https://sefm.es/eventos/seguridad-del-paciente-en-radioterapia-externa-2a-edicion/



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ICRP DIGITAL WORKSHOP: THE FUTURE OF RADIOLOGICAL PROTECTION

Live sessions will take place 19-20 October 2021, with two half-day sessions running 12:00-16:00 GMT.

On-demand presentations, and the opportunity to interact with authors, will be available from 14 October 2021 until 3 November 2021, inclusive. You must be registered for the workshop to receive access.

Abstract acceptance for The Future of RP Workshop is now open. We welcome abstracts in response to the "Keeping ICRP Recommendations Fit for Purpose" paper, or any other topic related to the review of the System of Radiological Protection. Accepted presenters will have the option of submitting a pre-recorded video presentation of up to 15 minutes and/or a paper of up to 15 pages no later than 8 October 2021. The deadline for acceptance of abstracts is 30 September 2021. Those submitted by 10 September 2021 may receive early acceptance and will be considered for the live presentation part of the programme on 19-20 October. You do not need to be registered to submit your abstract, however, you will need to do so in order to have your work highlighted at the workshop.

ICRP is comprised of over 250 of the world's leading radiation experts. We are the "keepers" of the System of Radiological Protection, but the System exists for those who use it to protect patients, workers, the public, and the environment. Collaboration with the people it impacts the most is essential.

Over the next decade, we will work together to develop the next fundamental recommendations that will shape radiation-related policy, practice, guidelines, and regulations around the world.

The Keeping the ICRP Recommendations Fit For Purpose paper is a key step in that process. Through many conversations over the last couple of years and ICRP experience, this paper summarises the topics being considered for the future of RP. We want to hear your responses, thoughts, and feedback by participating in our Digital Workshop described above.

For more information visit: https://mailchimp.icrp.org/the-future-of-radiological-protection



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INTERNATIONAL CONFERENCE ON INDIVIDUAL MONITORING OF IONISING RADIATION (IM2022) AND NEUTRON AND ION DOSIMETRY SYMPOSIUM (NEUDOS-14)

25-29.04.2022 Kraków, Poland

The Institute of Nuclear Physics Polish Academy of Sciences (IFJ PAN) and the European Radiation Dosimetry Group invite you to participate in the combined:

International Conference on Individual Monitoring of Ionising Radiation (IM2022) and Neutron and Ion Dosimetry Symposium (NEUDOS-14)

which will be held in Kraków, Poland from 25th to 29th April 2022. This conference continues the tradition of the conference series and offers a great opportunity to share knowledge, to exchange experience and to promote new ideas between scientists from research bodies, regulatory authorities and industry worldwide.

The IFJ PAN, established in 1955, is currently the largest research institute of the Polish Academy of Sciences. The Minister of Science and Higher Education in Poland has granted the Institute the prestigious status of the Leading National Research Centre (KNOW) in physics for the years 2012-2017 (together with the other members of the Marian Smoluchowski Kraków Research Consortium: "Matter-Energy-Future") and twice, in 2013 and in 2017, the Institute was awarded A+ Category (leading level in Poland) in science and engineering.

In 2017 the European Commission granted to the Institute of Nuclear Physics Polish Academy of Sciences the HR Excellence in Research award.

For more information on registration and programs visit: https://imneudos.jordan.pl/en



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RESOURCES AND DOWNLOADS



AVAILABLE: ICRP PUBLICATION 149 OCCUPATIONAL RADIOLOGICAL PROTECTION IN BRACHY THERAPY

Recommended citation

ICRP, 2021. Occupational radiological protection in brachytherapy. ICRP Publication 149. Ann. ICRP 50(3).

Authors on behalf of ICRP

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Brachytherapy procedures account for an important share of occupational radiation exposure in medicine for some facilities. Additionally, workers (staff) in brachytherapy treatment facilities can receive high radiation doses if radiological protection tools are not used properly. This publication is focused specifically on occupational exposure during brachytherapy and brings together information relevant to brachytherapy and occupational safety from the Commission's published documents. The material and recommendations in the current publication have been updated to reflect the most recent recommendations of the Commission. This publication includes discussions of the biological effects of radiation, principles of radiological protection, protection of staff during brachytherapy procedures, radiological protection training, and establishment of a quality assurance programme. Specific recommendations include training, monitoring, and robust quality assurance programmes.

https://icrp.org/publication.asp?id=ICRP%20Publication%20149



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RESOURCES AND DOWNLOADS



AVAILABLE

NUCLEAR SAFETY KNOWLEDGE MANAGEMENT: NATIONAL APPROACHES AND EXPERIENCE

To access the download, go to: https://www-pub.iaea.org/MTCD/Publications/PDF/P1938_web.pdf



The Network for the Optimization of Occupational Radiological Protection in Latin America and the Caribbean (REPROLAM) is a scientific and cultural society, non-profit, political, religious or racial, of unlimited duration, which has the objective of promoting the optimization of occupational radiation protection. REPROLAM seeks to expand academic and scientific cooperation among its members, with the aim of promoting adequate radiation protection for workers.

Visit our website for more information: http://www.reprolam.com/ How to contact: reprolam2020@gmail.com