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ICRP 2023

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ICRP 2023 WOULD LIKE TO THANK OUR GENEROUS SPONSORS:

SPECIAL PARTNERS



Japan Health Physics Society



PARTNERS

EC. HERCA, FORO, IARC, IAEA, ICRU, ILO, IOMP, IRPA, ISRRT, ISR, NEA, UNSCEAR, WHO, WNA, RERF, FMU, Hiroshima University, Nagasaki University

COOPERATING ORGANISATIONS











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HOST ORGANISATIONS



National Institute for Quantum Science and Technology (QST)

The National Institute for Quantum Science and Technology (QST) was established in April 2016 to promote quantum science and technology in a comprehensive and integrated manner. The new organization was formed from the merger of the National Institute of Radiological Sciences (NIRS) with certain operations that were previously undertaken by the Japan Atomic Energy Agency (JAEA).

https://www.qst.go.jp/site/qst-english/



International Commission on Radiological Protection (ICRP)

The International Commission on Radiological Protection (ICRP) was established in 1928 at the second International Congress of Radiology to respond to growing concerns about the effects of ionizing radiation being observed in the medical community. At the time it was called the International X-ray and Radium Protection Committee (IXRPC) but was restructured to better take account of uses of radiation outside the medical area and given its present name in 1950.

https://icrp.org/

COMMITTEES

ICRP 2023 Executive Committee

Christopher Clement (ICRP) Reiko Kanda (QST) Werner Rühm (ICRP) Michiaki Kai (ICRP)

ICRP 2023 Programme Committee

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Takashi Yasumune (ICRP)
Werner Rühm (ICRP)
Michiaki Kai (ICRP)
Yukio Uchihori (QST)
Sumi Yokoyama (JHPS)
Satoshi Tashiro (JRRS)

Advisory Groups:

EC	ICRU	ISR	RERF
HERCA	ILO	NEA	FMU
FORO	IOMP	UNSCEAR	Hiroshima-U
IARC	IRPA	WHO	Nagasaki-U
IAEA	ISRRT	WNA	J

ICRP 2023 Local Organising Committee

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GENERAL SYMPOSIUM INFORMATION

Registration Desk Hours

9 Lobby

 6 November
 16:00 - 19:00

 7 November
 7:30 - 17:00

 8 November
 8:00 - 17:00

 9 November
 8:00 - 14:30

Exhibition & Poster Hall Hours

Poyer (Exhibits) Palais Royal A (Posters)

7 November 9:30 - 17:30 8 November 9:30 - 17:30 9 November 9:30 - 17:30

Food & Beverage

Palais Royal BC

Morning Coffee Break 11:00 - 11:30 Lunch Break 13:00 - 14:00 Afternoon Coffee Break 15:30 - 16:00



Network: **GrandNikko**Password: **daiba12**



GENERAL SYMPOSIUM INFORMATION

Access/Security

Name badges will be provided to all attendees, sponsors, and exhibitors and will be available for pick up at the Registration Desk (see venue map). Please wear your badge at all times as it is your admission to all symposium sessions, Exhibit & ePoster Hall, and social events.

Language

The official language of ICRP 2021+1 is English. All sessions will be conducted in English.

Parking

Staying Guest: ¥2,000 per car per stay with validation

Non Staying: ¥1,000 for the first hour and ¥500 per 30 minutes

thereafter

Photography

An official photographer is present during the symposium. By registering and attending ICRP 2021+1, you agree to have your photo taken. Photography may be used for marketing purposes for future ICRP events.

Lost & Found

Please report any lost or unattended items immediately to the ICRP 2023 Registration Desk. Should you lose anything while at ICRP 2023, please enquire at the Registration Desk where any recovered lost property will be held. At the end of the symposium, all unclaimed lost and found items will be given to the Grand Nikko Hotel.

Health & Safety

The health and safety of all our stakeholders is of the utmost importance!

For the latest health and safety information outlined by the Ministry of Health, Labor and Welfare of Japan, please visit: https://www.mhlw.go.jp/stf/english/index.html

For the Grand Nikko's commitment to clean, please visit: https://www.tokyo.grandnikko.com/stay/agreement/



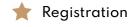


VENUE FLOORPLAN

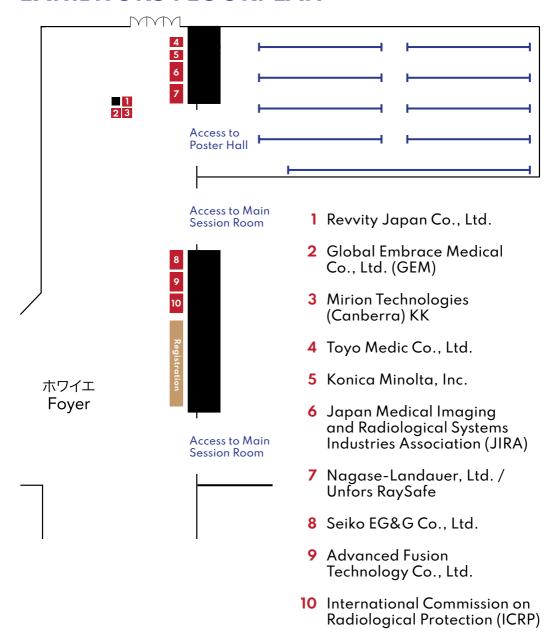








EXHIBITORS FLOORPLAN





SOCIAL EVENTS

Welcome Reception

6 November 17:30 - 19:00

Palais Royal C

*Symposium badge required for entry

Gala Dinner

Co-hosted by ICRP, QST, JRRS, and JHPS 8 November 18:00 - 20:00

Palais Royal BC

*Symposium badge or event ticket required for entry

POSTER PORTAL

To fully enjoy the symposium, we invite you to join the ICRP 2023 Poster Portal. Here you can access the full scientific programme, session recordings, abstracts, digital posters, and on-demand video presentations, plus interact with colleagues and friends.



To login, scan the QR Code or visit: https://event.fourwaves.com/icrp2023

All content is accessible from your browser and no app download is necessary. Login with your email address and password created during account activation.

For Poster Portal support, please contact charlotte.white@icrp.org

POSTER SESSIONS

9 Palais Royal A

Over 300 posters will be available to view in-person during ICRP 2023. Each day, the afternoon break will have a dedicated poster session for posters submitted either to ICRP 2023, the Japanese Radiation Research Society (JRRS), or the Japan Health Physics Society (JHPS).

Tuesday 7 November 15:30 - 16:00

Break & JRRS Poster Session

Posters: 1001 — 1100

Wednesday 8 November 15:30 - 16:00

Break & ICRP 2023 Poster Session

Posters: 2001 — 2166

2401 — 2435

Thursday 9 November 15:30 - 16:00

Break & JHPS Poster Session

Posters: 3001 — 3055

Please see the Poster Programme (supplement) for the full list of available posters.

To find your favourite posters in-person, please see the Poster Hall Map on the last page of this programme.

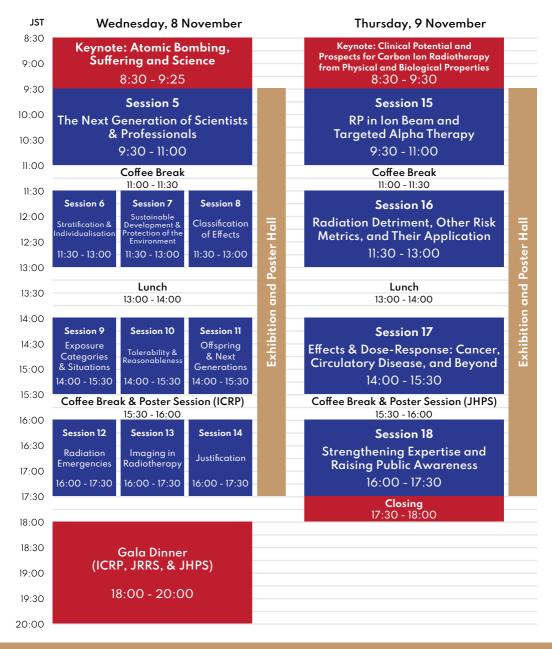




PROGRAMME AT A GLANCE

JST	Monday	v, 6 November	Tuesday, 7 November	
8:30 -	LOCATION	SESSION	Welcome Address & Bo Lindell Lecture	
9:00 -	Palais Royal	1 - 6, 15 - 18	8:30 - 9:25	
9:30 -	BC	Welcome Address	Session 1	
10:00		Bo Lindell Lecture Keynote Lectures	Going Beyond Dose:	
10:30	4	Closing	Wellbeing in RP 9:30 - 11:00	
11:00 —	Étoile Vendôme	7, 10, 13 8, 11, 14	Coffee Break	
11:30	Châtelet	9, 12	11:00 - 11:30	
12:00 -			Session 2	
_			Dosimetry for the Next General Recommendations	Hall
12:30			11:30 - 13:00	ter
13:00 —				Pos
13:30 -			Lunch 13:00 - 14:00	pur
14:00				on
14:30 -			Session 3	Exhibition and Poster Hall
			Communication	Exh
15:00 – –			14:00 - 15:30	
15:30			Coffee Break & Poster Session (JRRS)	
16:00 -			15:30 - 16:00	
16:30			Session 4 How Experience of the Fukushima	
17:00			Daiichi Accident is Improving RP	
17:30			16:00 - 17:30	
18:00	Wolser	ne Reception		
18:30	17:3	80 - 19:00		
19:00				

PROGRAMME AT A GLANCE





Tuesday 7 November

8:30 - 9:25	Welcome & Bo Lindell Lecture
	9 Palais Royal BC
Moderator:	Christopher CLEMENT (ICRP, Canada)
8:30 - 8:45	Welcome Remarks Shinsuke YAMANAKA (NRA, Japan) Shigeo KOYASU (QST, Japan) Michiya SASAKI (JHPS, Japan) Satoshi TASHIRO (JRRS, Japan)
8:45 - 8:55	Welcome & Introductory Remarks Werner RÜHM (ICRP, Germany)
8:55 - 9:00	Bo Lindell Medal Introduction Werner RÜHM (ICRP, Germany)
9:00 - 9:25	Bo Lindell Lecture Ludovic VAILLANT (CEPN, France)
9:25 - 9:30	Break
9:30 - 11:00	Session 1: Going Beyond Dose: Wellbeing in RP
	9 Palais Royal BC
Co-chairs: Rapporteur:	Emilie van DEVENTER (WHO, Switzerland), Noboru TAKAMURA (Nagaski University, Japan) Seiko HIROTA (Hiroshima University, Japan)
9:30 - 9:33	Opening Remarks Co-chairs
9:33 - 9:40	Introduction of Related Video and Poster Presentations Rapporteur
9:40 - 9:55 with short Q&A	Mental Health and Psychosocial Support in Radiological and Nuclear Emergencies: Part 1 - The WHO Framework Zhanat CARR (WHO, Switzerland)
9:55 - 10:10 with short Q&A	Mental Health and Psychosocial Support in Radiological and Nuclear Emergencies: Part 2 - NEA's Operational Extension Julie BURTT (NEA EGNR, Canada)
10:10 - 10:25 with short Q&A	Towards Well-being: Learning from Patient Experience and Interaction in ICRP TG109 Report Marie-Claire CANTONE (University of Milan, Italy)
10:25 - 10:40	Risk Communication for Recovery of the Community in Fukushima
with short Q&A 10:40 - 11:00	Noboru TAKAMURA (Nagasaki University, Japan) Q&A Session



11:30 - 13:00 Session 2: Dosimetry for the Next Generation

8	Palais Royal BC
_	

Co-chairs: François BOCHUD (ICRP & IRA CHUV, Switzerland), Tatsuhiko SATO (ICRP & JAEA, Japan)

Rapporteur: Camille PACHER (ICRP & MUHC, Canada)

11:30 - 11:40 Introduction of Related Video and Poster Presentations

Rapporteur

11:40 - 11:55 Mesh-type Reference Computational Phantoms (MRCPs) for the Next General Recommendations

Yeon Soo YEOM (Yonsei University, Korea)

11:55 - 12:10 Introduction of a New ICRU Report on Microdosimetry

Tatsuhiko SATO (JAEA, Japan)

12:10 - 12:25 The Next ICRP Recommendations: Dosimetry for Animals and Plants—Time for a Probabilistic

Paradigm?

Alexander ULANOWSKI (IAEA, Austria)

12:25 - 12:40 Specific Absorbed Fractions for Reference Individuals for the Current and Next General

Recommendations

Derek JOKISCH (Francis Marion University, USA)

12:40 - 13:00 Q&A Session

13:00 - 14:00 Lunch

14:00 - 15:30 Session 3: Communication

Palais Royal BC

Co-chairs: Friedo ZÖLZER (ICRP & University of South Bohemia, Czech Republic),

Shoji TSUCHIDA (Kansai University, Japan)

Rapporteur: Franklin EZE (ICRP & Mercy Radiology, New Zealand)

14:00 - 14:10 Introduction of Related Video and Poster Presentations

Rapporteur

14:10 - 14:30 The Fukushima Dialogue and Risk Communication

Jacques LOCHARD (Nagasaki University, Japan)

14:30 - 14:50 The Role of Effective Communication and Stakeholder Engagement in the Application of the System

of Protection

Peter BRYANT (WNA, UK)

14:50 - 15:10 HERCA's Perspectives on the Challenges of the Communication in Radiation Protection

Tommi TOIVONEN (HERCA, Finland)

15:10 - 15:30 Q&A Session

15:30 - 16:00 Break / Poster Session (JRRS)

Palais Roval A





16:00 - 17:30 Session 4: How Experience of the Fukushima Daiichi Accident is Improving Radiological Protection

Palais Royal BC

Co-chairs: Thierry SCHNEIDER (ICRP & CEPN, France), Toshimitsu HOMMA (NRA, Japan)

Rapporteur: Isamu AMIR (FMU, Japan)

16:00 - 16:10 Introduction of Related Video and Poster Presentations

Rapporteur

16:10 - 16:22 Progress on Radiation Protection after Fukushima- Daiichi in the Spanish Nuclear Safety Council

with short Q&A Elvira ROMERA (CSN, Spain)

16:22 - 16:34 The Experience of the Suetsugi Atlas: Lessons for the Implementation of the Co-expertise Process

with short Q&A Ryoko ANDO (NPO Fukushima Dialogue, Japan)

16:34 - 16:46 Solution-oriented Risk Governance Practices toward Reconstruction and Improved Wellbeing after

with short Q&A the Fukushima Disaster

Michio MURAKAMI (Osaka University, Japan)

16:46 - 16:58 Impact and Implications of Radiation/Nuclear Disasters on Public Health: A Focus on Evacuations

with short Q&A and Disaster-Related Deaths

Masaharu TSUBOKURA (FMU, Japan)

16:58 - 17:10 Preparing for Recovery from a Nuclear Accident: The NEA preparedness framework

with short Q&A Anne NISBET (UKHSA, UK)

17:10 - 17:30 Q&A Session

Wednesday 8 November

8:30 - 9:30 Keynote Speaker: Ohtsura Niwa

Palais Royal BC

Moderator: Claire COUSINS (former ICRP MC Chair, UK)

8:30 - 8:35 Introduction

Moderator

8:35 - 9:15 Atomic Bombing, Suffering and Science

Ohtsura NIWA (RERF, Japan)

9:15 - 9:30 Q&A Session

8:30 - 9:30 Session 5: The Next Generation of Scientists & Professionals

9	Palais	D	D/C
•	raiais	Kovai	DC

Presentations of Cousins Award Finalists

Chair: Claire COUSINS (former ICRP MC Chair, UK)

9:30 - 9:35 Introduction

Chair

9:35 - 9:45 A Biokinetic Model to Assess Radon Uptake by the Fetus in Pregnant Women

Ämilie DEGENHARDT (BfS, Germany)

9:45 - 9:55 PregiDose: A Mobile Application Designed Through a User-Centered Approach to Enhance Fetal

Dosimetry and Wellbeing Among Pregnant Radiographers

Hafsa ESSOP (University of Pretoria, South Africa)

9:55 - 10:05 Rethinking Tissue Reactions to Radiation: The Tissue-Sparing Effect as a Threshold for Radiation-

Induced Male Infertility

Hisanori FUKUNAGA (Hokkaido University, Japan)

10:05 - 10:15 To Leave or Not to Leave: A Tiered Assessment of the Impacts of Scale Residue From

Decommissioned Offshore Oil and Gas Infrastructure in Australia

Amy MACINTOSH (Macquarie University & ANSTO, Australia)

Presentations of Invited Young Scientists and Professionals

Co-chairs: Akihiro SAKODA (JAEA, Japan), Sara DUMIT (ICRP & LANL, USA)

Rapporteur: Shinnosuke MATSUMOTO (Tokyo Metropolitan University, Japan)

10:15 - 10:19 Introduction

Co-chairs

10:19 - 10:28 Introduction of Related Video and Poster Presentations

Rapporteur

10:28 - 10:40 The Future of Radiation Protection for Young Professionals with Experiences of the IRPA Young

Generation Network

Takahiko KONO (JHPS YGN & IRPA YG, Japan)

10:40 - 10:52 What Does Social Science Have to Do with Radiation Protection?

Maren GRUB (BfS. Germany)

10:52 - 11:00 Q&A Session

Takahiko KONO & Maren GRUß

11:00 - 11:30 Break





PARALLEL SESSIONS 1

11:30 - 13:00 Session 6: Stratification & Individualisation

9 Palais Royal BC

Co-chairs: Simon BOUFFLER (ICRP & UKHSA, UK), Tatsuhiko IMAOKA (QST, Japan)

Rapporteur: Luana HAFNER (ENSI, Switzerland)

11:30 - 11:33 Introduction

11:55 - 12:10

Co-chairs

11:33 - 11:40 Introduction of Related Video and Poster Presentations

Rapporteur

11:40 - 11:55 Individual Differences in Medical Radiation Exposure in CT dosimetry Based on Age and BMI

Weishan CHANG (Tokyo Metropolitan University, Japan)

Individualizing Radiation Cancer Risk: Insights from Animal Studies

Tatsuhiko IMAOKA (QST, Japan)

12:10 - 12:25 The Case for Individualisation of Radiological Protection in Medicine

Colin J MARTIN (University of Glasgow, UK)

12:25 - 12:40 Doses and Risks in Common Medical Examinations – Impact of Age and Sex

Richard WAKEFORD (University of Manchester, UK)

12:40 - 13:00 Q&A Session

11:30 - 13:00 Session 7: Sustainable Development and Protection of the Environment

Étoile

Co-chairs: Nicole MARTINEZ (ICRP & Clemson University, UK), Keiko TAGAMI (QST, Japan)

Rapporteur: Adrienne ETHIER (CNSC, Canada)

11:30 - 11:40 Introduction of Related Video and Poster Presentations

Rapporteur

11:40 - 12:10 Ensuring that Environmental Radiological Protection Remains Fit for Purpose and Science Based:

Ongoing Work of Task Groups 99 and 105 $\,$

Christelle ADAM-GUILLERMIN (IRSN, France), Andy MAYALL (EA, UK), &

Jacqueline GARNIER-LAPLACE (NEA, FRANCE)

12:10 - 12:40 Environmental Radiological Impacts of the Nuclear Industry from Mining, to Construction,

Operation and Decommissioning of a Power Station

Peter BRYANT (Sizewell C / WNA, UK) & Jim HONDROS (WNA, Australia)

12:40 - 13:00 Q&A Session

11:30 - 13:00 Session 8: Classification of Effects

Vendôme

Co-chairs: Ludovic VAILLANT (ICRP & CEPN, France), Michiya SASAKI (ICRP & CRIEPI, Japan)

Rapporteur: Constantinos ZERVIDES (MEDI, Cyprus)



11:30 - 11:45 Classification of Harmful Radiation-induced Effects on Human Health for Radiological Protection

Purposes: History and Concepts

Friedo ZÖLZER (U South Bohemia, Czech Republic)

11:45 - 12:00 Is Cancer Risk of Radiation Probabilistic or Deterministic?

Nori NAKAMURA (RERF, Japan)

12:00 - 12:15 Revisiting Radiation Dose-Response for Tissue Reactions

Haruyuki OGINO (NRA, Japan)

12:15 - 12:30 Task Group 123: Classification of Harmful Radiation-induced Effects on Human Health for

Radiological Protection Purposes
Liz AINSBURY (UKHSA, UK)

Q&A Session

13:00 - 14:00 Lunch

12:30 - 13:00

14:15 - 14:25

14:45 - 14:55

PARALLEL SESSIONS 2

14:00 - 15:30 Session 9: Exposure Categories & Situations

? Châtelet

Co-chairs: Analia CANOBA (ICRP & ARN, Argentina), Hiroko YOSHIDA (ICRP & Tohoku University, Japan)

Rapporteur: Yuji INUKAI (C-Technol, Japan)

14:00 - 14:10 Introduction of Related Video and Poster Presentations

Rapporteur

14:10 - 14:15 Breakthroughs of Task Group 127

Analia CANOBA (ICRP & ARN, Argentina)

Is NORM always an Existing Exposure Situation?

Christopher JONES (AWE, UK)

14:25 - 14: 35 Some Issues in the Implementation of the Current System of Protection

Analia CANOBA (ICRP & ARN, Argentina)

14:35 - 14:45 Connections between Categories of Exposure in the Hospital Setting

Lorenzo Nicola MAZZONI (Medical Physics Unit Prato-Pistoia, AUSL Toscana Centro, Italy)

Issues and Confusions in an Existing Exposure Situation After the Fukushima Accident

Hiroko YOSHIDA (Tohoku University, Japan)

14:55 - 15:05 Exposure Categories & Situations in the Current System of Radiation Protection: Main Challenges

and IAEA's Activities to Assist its Members Sates in Addressing Them

Olvido GUZMÁN (IAEA, Austria)

15:05 - 15:30 Q&A Session

14:00 - 15:30 Session 10: Tolerability & Reasonableness

9 Étoile

Co-chairs: Thierry SCHNEIDER (ICRP & CEPN, France), Haruyuki OGINO (ICRP & NRA, Japan)

Rapporteur: Momo TAKADA (AIST, Japan)





14:00 - 14:10	Introduction
	Co-chairs
14:10 - 14:20	A Proposed Framework for Reasonable: Relationships, Rationale, and Resources
	Nicole MARTINEZ (ICRP, USA)
14:20 - 14:30	Summary of the ICRP-WNA Workshop on Optimisation
	Marcel LIPS (WNA, Switzerland)
14:30 - 14:40	How can Reasonableness and Tolerability be Considered in Implementing Optimisation in the
	Decision-making Process?
	Jacqueline GARNIER-LAPLACE (OECD/NEA, France)
14:40 - 14:50	ICRP TG 114, Application of Tolerability and Reasonableness in the Medical Field
	Marie-Claire CANTONE (University of Milan, Italy)
14:50 - 15:00	Introduction of Related Video and Poster Presentations
	Rapporteur
	Panel Discussion
15:00 - 15:05	Tolerability & Reasonableness: Views from IRPA
	Bernard le GUEN (IRPA, France)
15:05 - 15:10	A Benchmark for Comparing Radiation-related Cancer Risk Among Countries: Baseline Cancer
	Rates of Incidence and Mortality
	Jun HIROUCHI (JAEA, Japan)
15:10 - 15:30	Q&A Session including members of ICRP TG114
14:00 - 15:30	Session 11: Offspring & Next Generations
	Vendôme
Co-chairs:	Prakash HANDE (ICRP & National U of Singapore, Singapore),
	Yoshiya SHIMADA (ICRP & IES, Japan)
Rapporteur:	Hisanori FUKUNAGA (Hokkaido University, Japan)
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14:00 - 14:03	Introduction
	Co-chairs
14:03 - 14:10	Introduction of Related Video and Poster Presentations
	Rapporteur

14:10 - 14:20 The Work of ICRP Task Group 121 - the Effects of Preconceptional and Intrauterine Exposures

Richard WAKEFORD (University of Manchester, UK)

14:20 - 14:34 A Multidisciplinary Challenge to Assess the Next-generation Risks of Low-dose-rate Long-term

Gamma-ray Exposure by Whole-genome Sequencing in the Mouse Model

Yoichi GONDO (Tokai University, Japan)

14:34 - 14:48 History and Future Prospects of RERF Studies on Offspring of Atomic Bomb Survivors

Asao NODA (RERF, Japan)

14:48 - 15:03 Whole Genome Sequencing Analysis for Understanding Next Generation Effects of Radiation

Exposure

Arikuni UCHIMURA (RERF, Japan)

15:03 - 15:17 Lack of Transgenerational Effects of Ionizing Radiation Exposure in Cleanup Workers and Evacuees

of the Chornobyl Accident

Meredith YEAGER (NCI/NIH, USA)



15:17 - 15:30 Q&A Session

15:30 - 16:00 Break / Poster Session (ICRP 2023)

9 Palais Royal A

PARALLEL SESSIONS 3

16:00 - 17:30 Session 12: Radiation Emergencies

Châtelet

Co-chairs: Anne NISBET (ICRP & UKHSA, UK), Satoshi TASHIRO (Hiroshima University, Japan)

Rapporteur: Kotaro TANI (QST, Japan)

16:00 - 16:10 Introduction of Related Video and Poster Presentations

Rapporteur

16:10 - 16:22 Medical System for Radiation Emergency in Japan

Takako TOMINAGA (QST, Japan)

16:22 - 16:34 The Work of ICRP TG120 on Radiation Emergencies and Malicious Events

Anne NISBET (UKHSA & Chair ICRP TG120, UK)

16:34 - 16:46 New WHO Policy Advice on National Stockpiles for Radiological and Nuclear Emergencies

Zhanat CARR (WHO, Switzerland)

16:46 - 16:58 Communicating Radiation Emergencies on Social Media

Maren GRUB (ICRP & BfS, Germany)

16:58 - 17:30 Q&A Session

16:00 - 17:30 Session 13: Imaging in Radiotherapy

9 Étoile

Co-chairs: Colin J MARTIN (ICRP & University of Glasgow, UK),

Makoto HOSONO (ICRP & Kindai University, Japan)

Rapporteur: Yumi LEE (Yonsei University, Republic of Korea)

16:00 - 16:10 Introduction of Related Video and Poster Presentations

Rapporteur

16:10 - 16:25 A Survey of Image Guided Radiation Therapy Practices around the Globe

Colin J MARTIN (University of Glasgow, UK)

16:25 - 16:40 Fit for Purpose: Dose Optimization in Radiotherapy Imaging in a Large Organization

Tomas KRON (Peter Mac, Australia)

16:40 - 16:55 Development of a Methodology for Measurement of Dose for Cone Beam CT Scans in Radiotherapy

Mario DJUKELIC (Sir Charles Gairdner Hospital, Australia)

16:55 - 17:10 Image-guided Heavy Ion Therapy

Shinichiro MORI (QST, Japan)

17:10 - 17:30 Q&A Session





PARALLEL SESSIONS 3

16:00 - 17:30 Session 14: Justification

Vendôme

Co-chairs: Nobuhiko BAN (ICRP & NRA, Japan), Julie BURTT (ICRP & CNSC, Canada)

Rapporteur: Tatsuki KIMURA (CRIEPI, Japan)

16:00 - 16:03 Introduction

Co-chairs

16:03 - 16:10 Introduction of Related Video and Poster Presentations

Rapporteur

16:10 - 16:30 Unique Aspects of Justification in Medicine: An Ethical Way Forward for the Radiological Protection

with short Q&A Community

Sergio SALERNO (University of Palermo, Italy)

16:30 - 16:50 All-hazard Approach to Preparedness and Response for Complex Disasters

with short Q&A Terumasa NIIOKA (CAO, Japan)

Panel Discussion

16:50 - 16:53 Justification: Views from IRPA Bernard le GUEN (IRPA, France)

16:53 - 16:56 Flexible Application of the Justification Principle: The View of the NEA "Expert Group on

International Recommendations"

Sigurður MAGNÚSSON (OECD/NEA, Iceland)

16:56 - 16:59 TBD

Emilie van DEVENTER (WHO, Switzerland)

16:59 - 17:02 IAEA Activities in Relation to Justification of Medical Exposure

Ola HOLMBERG (IAEA, Austria)

17:02 - 17:30 Discussion

Thursday 9 November

8:30 - 9:30 Keynote Speaker: Hirohiko Tsujii

Palais Royal BC

Moderator: Yasuhito SASAKI (SKGH, Japan)

8:30 - 8:35 Introduction

Moderator



8:35 - 9:15 Clinical Potential and Prospects for Carbon Ion Radiotherapy from Physical and Biological

Properties

9:15 - 9:30 Hirohiko TSUJII (QST, Japan)

Q&A Session

9:30 - 11:00 Session 15: RP in Ion Beam and Targeted Alpha Therapy

9 Palais Royal BC

Co-chairs: M. MAHESH (ICRP, USA), Tatsuya HIGASHI (QST, Japan)

Rapporteur: Weishan CHANG (Tokyo Metropolitan University, Japan)

9:30 - 9:40 Introduction of Related Video and Poster Presentations

Rapporteur

9:40 - 9:58 Development and Clinical Application of Targeted Alpha Therapy using Astatine (At-211)

with short Q&A Tadashi WATABE (Osaka University, Japan)

9:58 - 10:16 Contribution of QST to Radiation Protection in Ion Beam Radiotherapy after Publication of ICRP127

with short Q&A Shunsuke YONAI (QST, Japan)

10:16 - 10:34 High-resolution Analysis of the DNA Damage Pattern Following Heavy Ion Irradiation Using

with short Q&A Electron Microscopy

Claudia RÜBE (Saarland University, Germany)

10:34 - 10:52 RBE for Ion Beam and Targeted Alpha Therapy - From Medical Physics to Radiological Protection

with short Q&A Tatsuhiko SATO (JAEA, Japan)

10:52 - 11:00 Q&A Session

11:00 - 11:30 Break

11:30 - 13:00 Session 16: Radiation Detriment, Other Risk Metrics, and Their Application

Palais Roval BC

Co-chairs: Michiaki KAI (ICRP & NBU, Japan), Richard WAKEFORD (ICRP & University of Manchester, UK)

Rapporteur: Jun HIROUCHI (JAEA, Japan)

11:30 - 11:33 Introduction

Co-chairs

11:33 - 11:40 Introduction of Related Video and Poster Presentations

Rapporteur

11:40 - 11:55 Analysis of Solid Cancer Incidence in the LSS of Atomic Bomb Survivors: 1958-2009

Alina BRENNER (RERF, Japan)

11:55 - 12:10 A Short Review of Published Multi-Model-Inference Studies in Radiation Epidemiology and Some

New Developments

Luana HAFNER (ENSI, Switzerland)

12:10 - 12:25 Plausible Biological Mechanisms Underlying Sex Differences Radiation-Induced Lung Cancer Risk

Michael WEIL (Colorado State University, USA)

12:25 - 12:40 Reimagining Radiological Risk Communication

Samy EL-JABY (CNL, Canada)





12:40 - 13:00 Q&A Session

13:00 - 14:00 Lunch

14:00 - 15:30 Session 17: Effects & Dose-Response: Cancer, Circulatory Disease,

and Beyond

Palais Royal BC

Co-chairs: Dominique LAURIER (ICRP & IRSN, France), Kotaro OZASA (ICRP & Kyoto Pref Univ Med., Japan)

Rapporteur: Yuki FUJIMICHI (CRIEPI, Japan)

14:00 - 14:03 Introduction

Chair

14:03 - 14:10 Introduction of Related Video and Poster Presentations

Rapporteur

14:10 - 14:25 Dose-rate Effects and RBE: Life Shortening and Non-cancer Effects

with short Q&A Gayle WOLOSCHAK (Northwestern University, USA)

14:25 - 14:40 Cancer Risks Among Workers

with short Q&A David RICHARDSON (U of California Irvine, USA)

14:40 - 14:55 Overview of Recent Radiation Effects Research Foundation (RERF) Research Activities in

with short Q&A Epidemiology

Ritsu SAKATA (RERF, Japan)

14:55 - 15:10 Non-Cancer Effects of Radiation Exposure: Cataracts, Diseases of the Circulatory System and

with short Q&A Beyond

Nobuyuki HAMADA (CRIEPI, Japan)

15:10 - 15:25 UNSCEAR Ongoing and Planned Evaluations on Levels and Effects of Radiation Exposure

with short Q&A Jing CHEN (UNSCEAR, Canada)

15:25 - 15:30 Q&A Session

15:30 - 16:00 Break / Poster Session (JHPS)

Palais Royal A

16:00 - 17:30 Session 18: Strengthening Expertise and Raising Public Awareness

Palais Royal BC

Co-chairs: Kun-Woo CHO (ICRP & KINS, Republic of Korea), Reiko KANDA (QST, Japan)

Rapporteur: Yeon Soo YEOM (Yonsei University, Republic of Korea)

16:00 - 16:10 Introduction of Related Video and Poster Presentations

Rapporteur

16:10 - 16:20 Vancouver Call for Action

Werner RÜHM (ICRP, Germany)

16:20 - 16:25 An Unprecedented Era with Patients Receiving High (>100 mSv) Cumulative Doses: Collective

Actions Needed

Madan REHANI (MGH, Boston, USA & IOMP & IUPESM)



16:25 - 16:30	The NEA's Efforts to Strengthen Radiological Protection Expertise and Public Awareness Jacqueline GARNIER-LAPLACE (NEA, France)
16:30 - 16:35	PIANOFORTE: A European Research Partnership to Strengthen Expertise in Radiation Protection Jean-Christophe GARIEL (IRSN, France)
16:35 - 16:40	TBD
	Emilie van DEVENTER (WHO, Switzerland)
16:40 - 16:45	HERCA Perspectives on Practical Aspects of Strengthening Expertise
	Carol ROBINSON (HERCA, UK)
16:45 - 16:50	Strengthening Expertise and Raising Public Awareness is a Part of Radiation Protection Culture:
	Example in Healthcare
	Bernard le GUEN (IRPA, France)
16:50 - 16:55	Raising Public Awareness on Radiation Science
	Jing CHEN (UNSCEAR, Canada)
16:55 - 17:00	Capacity and Expertise Building in Radiation Protection and Raising Public Awareness Core to
	IAEA's Mission
	Miroslav PINAK (IAEA, Austria)

17:30 - 18:00 Closing

Q&A Session

Closing

9 Palais Royal BC

17:00 - 17:30

18:00

Moderator:	Simon BOUFFLER (ICRP & UKHSA, UK)
17:30 - 17:40	Introduction of Remaining Video and Poster Presentations
	Simon BOUFFLER (ICRP & UKHSA, UK)
17:40 - 17:45	ICRP Remarks
	Werner RÜHM (ICRP, Germany)
17:45 - 17:50	Remarks on Behalf of Japanese Organisers
	Reiko KANDA (QST, Japan)
17:50 - 18:00	Invitation to ICRP 2025
	TBD

Werner RÜHM (ICRP, Germany)

KEYNOTE SPEAKERS



Ohtsure Niwa

Wednesday 8 November Ohtsura Niwa was born in Kobe, Japan during the second world war and his family evacuated to a rural village near Himeji. His childhood life was in full of excitements like swimming in a pond, climbing hills, hunting wild berry, fishing in the pond, mushroom hunting in the woods, but his family moved to Osaka when he was the 2nd grade elemental school. He went Kyoto University and took Zoology as his major. Because of student riot in late 1960s in Japan, He went to Stanford University and got Ph.D. in 1975, for the study of radiation induced endogenous mouse retrovirus which at that time was thought as the causative agent of mouse leukemia.

His professional research carrier started at Kyoto University Medical School in 1975. He studied the mechanism of radiation induction of endogenous retrovirus and found that the gene expression of endogenous virus was suppressed by DNA methylation and radiation induces the expression of the virus by demethylating the viral genome. He then moved to Hiroshima University Research Institute for Nuclear Medicine and Biology in 1984. It was well known that external infection of retrovirus in any somatic cells would leads to productive infection, but external infection of embryonal stem cell always results in silent infection due to immediate DNA methylation. Thereafter, he became interested in non-target mutation phenomena of radiation. For this study he started using hypervariable minisatellite loci. After moving to Kyoto University Radiation Biology Center in 1997, he studied non-targeted and delayed recombination using the pink-eyed unstable locus in mice born to irradiated spermatozoa, till his retirement in 2007.

After leaving laboratory research, he worked at National Institute of Radiological Sciences as an associate director of Heavy Ion Radiotherapy Center till 2009, and then worked at a private biopharmaceutical company till 2012. After the Fukushima Daiich Power Plant Accident in 2011, he started visiting the area and then took a position at Fukushima Medical University in 2012 to live in affected land to communicate with local people. Since 2015, he served as the Chair of a Radiation Effects Research Foundation in Hiroshima and Nagasaki. Now, 2023, he retired from the Foundation. As for his involvement in radiation protection, he served ICRP as a C1 member since 2001and and as a Main Commission member till 2016.



Hirohiko Tsujii

Thursday
9 November

Visiting Researcher, QST Hospital, Chiba, Japan Deputy Director, Association for Nuclear Technology in Medicine (ANTM)

Academic and Professional Appointments

1968	Graduated from Hokkaido University School of Medicine, Japan
1972 - 1975	Resident at St. Vincent Medical Center in New York, USA
1975 - 1989	Associate Professor, Hokkaido University School of Medicine
1978 - 1979	Research fellow at New Mexico University, NM, USA
1982 - 1983	Research fellow at Paul Sheller Institute, Switzerland
1989 - 1994	Professor, Proton Medical Research Center (PMRC), Tsukuba University
1994 - 2008	Director, NIRS Hospital, National Institute of Radiological Sciences (NIRS)
2008 - 2011	Executive Director, NIRS
2016 - 2018	Director, iROCK, Kanagawa Cancer Center
2018 - 2022	Director, International Particle Therapy Center, QST Hospital

Honors

2004	President, JASTRO
2005	Scientific Award, Princess Takamatsu Cancer Research Prize
2006	Chairman, PTCOG
2013	Gold Medal, JASTRO
2015	The Order of the Sacred Treasure, Gold Rays with Neck Ribbon, Japan
2023	Robert R. Wilson Award, PTCOG



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高品質な診断用放射性医薬品(SPECT検査、PET検査)の迅速確実なデリバリーに加え、 治療用放射性医薬品の分野を積極的に推し進め、 診断薬と一体となった各種治療薬の更なる拡充を図っていきます。

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SATELLITE EVENTS

Details available at https://icrp2023.jp/related-events/

Symposium: Next Generation of Radiotherapy and Radioprotection Based on Precise Radiosensitivity

□ 6 November, 13:15 - 15:15 **9** Grand Nikko Tokyo Daiba, 29TH Floor

Organisers: Japanese Radiation Research Society supported by Radiation Biology Group, Japanese Society for Radiation Oncology and the JSPS Core-to-Core program

Symposium: Low Dose and Low Dose-rate Radiation Research: Moving Forward

🗂 6 November, 15:30 - 17:30 👂 Grand Nikko Tokyo Daiba, 29TH Floor

Organisers: Institute for Environmental Sciences, Japan and Japanese Radiation Research Society

Symposium: Radiological Protection in Radioactive Waste Disposal – How We Manage Long-term Uncertainties?

🗂 11 November, 10:00 - 12:30 👂 Grand Nikko Tokyo Daiba, 29TH Floor

Organiser: The Division of Nuclear Fuel Cycle and Environment of Atomic Energy Society of Japan

Symposium: Cataract Caused by Low-dose Radiation

🗂 11 November, 13:00 - 14:30 👂 Grand Nikko Tokyo Daiba, 29TH Floor

Organiser: Japanese Society for Cataract Research

Annual Meeting of the Japanese Society of Radiation Safety Management

🗂 11 - 13 November 👂 GRANSHIP (Shizuoka Convention & Arts Center)

Organiser: Japanese Society of Radiation Safety Management

Special Session: The Co-expertise Process

🗂 12 November, 13:20 - 14:50 👂 Hokkaido University

Organiser: Society for Risk Analysis, Japan



SATELLITE EVENTS

Symposium: Gonadal Shielding in Radiology: How Do We Make Decisions While Understanding Ethical Issues?

🗂 12 November, 14:00 - 17:00 👂 Grand Nikko Tokyo Daiba, B1 Floor

Organisers: The Japan Association of Radiological Technologists and Japanese Society of Radiological Technology

Invited Lecture: Emergency Response to Accidents and Terrorism, Yann Billarand

🗂 13 November, 10:00 - 11:00 👂 GRANSHIP (Shizuoka Convention & Arts Center)

Organiser: Japanese Society of Radiation Safety Management

Invited Lecture: Radiation Dose to Patients in Diagnostic Nuclear Medicine, Augusto Giussani (Projected by JSMP-JSNMT-JSNM)

🗂 16 November, 10:40 - 11:40 🛾 🦞 Congrès Convention Center, Grand Front Osaka, Osaka

Organisers: Japanese Society of Nuclear Medicine, Japanese Society of Nuclear Medicine Technology and Japan Society of Medical Physics

Invited Lecture: Initiatives for Nuclear Medicine in ICRP, Jin Chul Paeng (Projected by JSMP-JSNMT-JSNM)

🗂 16 November, 14:00 - 14:30 👂 Congrès Convention Center, Grand Front Osaka, Osaka

Organisers: Japanese Society of Nuclear Medicine, Japanese Society of Nuclear Medicine Technology and Japan Society of Medical Physics

Invited Lecture: Recent Developments and Future Challenges for ICRP Committee 3, David Sutton (Projected by JSMP-JSNMT-JSNM)

🗂 16 November, 14:50 - 15:20 👂 Congrès Convention Center, Grand Front Osaka, Osaka

Organisers: Japanese Society of Nuclear Medicine, Japanese Society of Nuclear Medicine Technology and Japan Society of Medical Physics

Symposium: Radiological Protection Towards Advancements of Medicine (JSMP-JSNMT-JSNM Joint Symposium)

🗂 16 November, 15:20 - 17:50 👂 Congrès Convention Center, Grand Front Osaka, Osaka

Organisers: Japanese Society of Nuclear Medicine, Japanese Society of Nuclear Medicine Technology and Japan Society of Medical Physics







ICRP 2023 Poster Hall Map

