

## ICRP Committee 2 Meeting

6, 11, 12 November 2022 – In-person and virtual meeting

### Update on Task Groups

**TG36 Radiation Dose to Patients in Diagnostic Nuclear Medicine** The goal is the update of ICRP Publication 128. The group is involved in the development of new compartmental models for new substances and the improvement of current models, for the assessment of absorbed organ dose coefficients (mGy/MBq) and Effective dose coefficients (mSv/MBq), depending with age and sex. QC is carried out using software IDAC (Univ. Gothenburg), DOSAGE (BfS) and DCAL (ORNL).

**TG95 Internal Dose Coefficients** OIR reports for Occupational Intakes of Radionuclides are completed and OIR Data Viewer is available. EIR series for public internal exposures is under development. EIR Part 1 was available for public consultation in 2022 and EIR Part 2 is in process.

**TG96 Computational Phantoms and Radiation Transport** Specific Absorption Fractions for adults are available in Publication 133. SAFs for pediatric individuals, considering 6 age-groups, for male and female, will be published in 2023, and the TG will be closed afterwards.

**TG103 Mesh-type Reference Computational Phantoms** MRCPs for adults are available in Publication 145 and MRCPs for pediatric individuals will be published in 2023. New libraries of mesh phantoms are available depending on age, height and weight, considering 5 different positions. The TG is currently working on the mesh models for pregnant woman (8 states of pregnancy) and fetus.

**TG112 Emergency Dosimetry** The goal is the development of data sets for dosimetric estimations of internal and external exposures. The scenarios include high doses (stochastic effects and tissue reactions). Code McSEE in under development for MC simulations to assess external doses.

**TG113 Dose Coefficients for Diagnostic X-ray Imaging** The objective is the development of dose coefficients (organ absorbed dose and effective dose) in Radiography, Computed Tomography (CT) scan and Fluoroscopy. MC simulations are carried out using voxel reference phantoms for well defined imaging protocols proposed by the C3 members of the TG. Electronic tools are in process.

### Other Task Groups with C2 Members

**TG102/122 Radiation Detriment Calculation Methodology (C1)** ICRP Publication 152 in 2022.

**TG115 Risk and Dose Assessment for RP of Astronauts (C1)** A TG meeting was organized in Vancouver, counting with the participation of Space Agencies (ESA, NASA, JAXA, Russian SA).

**TG118 RBE, Q, wR (C1)** Consideration of non-cancer diseases. Meeting organized in Vancouver.

**TG119 Cardiovascular Diseases (C1)** C2 involvement is focused on dosimetry issues.

**TG120 RP for Radiation Emergencies and Malicious Events (C4)**

**TG121 Effects of Ionising Radiation Exposure in Offspring and Next Generations (C1)**

**TG125 Dosimetry for Non-human Biota**

**New WP on Individual (Patient Specific) Effective Dose**

### Other topics discussed during the meeting

- The link of IAEA with ICRP C2 was established to collaborate in a coordinated research action on dosimetry for terrestrial animals and plants. A C2 member is invited as observer.
- The ICRP/EURADOS Training course on Biokinetic Modelling will be organized in 2024.
- A collaboration of C2 with EURADOS was discussed for the quality-control of the EIR dose coefficients.
- A report on the evolution of the dose coefficients since Publication 30 will be elaborated by C2, considering internal and external exposures.
- Common areas of research were identified for the collaboration of ICRP with ICRU.
- C2 meeting will be organized online on 9 May 2023. The meeting in 2024 will take place in Munich.