

Summary of the ICRP Committee 2 Virtual Meeting - November 18-25, 2020

C2 held a series of two hour Zoom meetings on 18th, 20th, 23rd and 25th November, attended by all C2 members.

- **Radiopharmaceutical Dosimetry – TG 36 (C2+C3).** Chair (C2) Augusto Giussani.

The TG objective is to update and develop dose coefficients for radiopharmaceuticals administered to patients in diagnostic nuclear medicine. Main tasks are (1) develop of biokinetic models, (2) develop the computer code IDAC, (3) develop an electronic viewer, (4) update of P128, (5) develop guidance on biokinetic data collection. The TG have also developed plans to consider doses to the embryo/fetus and breastfed child.

- **Internal Dose Coefficients – TG 95.** Chair François Paquet.

Dose coefficients (internal exposures) are available from the ICRP Data Viewer for the OIR series Parts 2, 3 and 4. Draft of OIR Part 5 has been developed for all remaining elements (38), with an annex on exposures to submersion from noble gases. Work has commenced on dose coefficients for public exposures which will be published in three documents.

- **Computational Phantoms and Radiation Transport – TG 96.** Chair Wesley Bolch.

A summary of the current status of the paediatric SAF data set was presented. A complete set of neutron SAFs were received in early September 2020. Additional QA checks are ongoing. An outline of the Paediatric SAF Publication was presented and discussed. A draft for C2 review will be completed during 2021.

- **Mesh-Type Reference Computational Phantoms – TG 103.** Chair Chan Kim

An overview of the status of the paediatric mesh-based phantoms was presented. The chapters in the current draft report include a summary of improvements provided by the mesh-type phantoms, conversion process from voxel to mesh formats, inclusion of blood to organ target volumes, inclusion of thin target and source regions, description of the mesh-type phantoms, including geometric similarity between P143 phantoms and the computational performance in MC radiation transport codes, and the dosimetric impact for external and internal exposures.

- **Emergency Dosimetry – TG 112.** Chair Vladimir Berkovskyy

An outline of the report was presented. Vol. 1 will cover assessment of exposure in emergency preparedness and response. Vol. 2 will review models and datasets for assessments of internal exposure in emergency preparedness and response. Vol. 3 will cover these same elements for external exposures. RBE weighted tissue/organ absorbed dose was introduced by the IAEA and should be considered for inclusion in the ICRP system.

- **Dose Coefficients for Diagnostic X-ray Imaging – TG 113 (C2+C3).** Chair Nina Petoussi

The work is divided into five areas: CT, Radiography, Fluoroscopy, Pregnant Females (subset of exams), and Non-Reference Phantoms (subset of exams). ICRP reference phantoms are being used throughout this work.

Other Task Groups with C2 Membership

- **Cancer Risk from Alpha Particles (C1) – TG 64.** Participation of Eric Blanchardon.
- **Radiation Protection in Radionuclide Therapy (C3) – TG 101.** Participation of Wesley Bolsch
- **Detriment Calculation Methodology (C1) – TG 102.** Participation of John Harrison.
- **Doses and Risks for RP of Astronauts (C1) – TG 115.** Participation of Tatsuhiko Sato and A. Ulanowski
- **RBE, Quality Factors, and Radiation Weighting Factors (C1) – WP.** Participation of John Harrison
- **Dosimetry for Non-Human Biota.** Involvement of Alexander Ulanowski and François Paquet.

Other topics discussed during the meeting:

- UNSCEAR Report on Radon and recent NCRP Reports
- Research Needs, the Revision of the System of Protection and C2 reports required before New Recommendations.

John Harrison suggested having the next virtual meeting in May 2021, before the end of the current term.