

## ICRP Committee 1 Meeting

November 18, 22-24, 2019 – Adelaide, Australia

The meeting was held at the Convention Center in Adelaide in conjunction to the ICRP symposium. The committee began by observing a minute of silence for the memory of both Ranajit Chakraborty who died on Sept 24, 2018 and Wolfgang Dörr who passed away suddenly on Oct 13, 2019. All C1 members will miss their expertise and friendship. Discussions during the C1 meeting and the joint-committee meetings covered a wide range of issues reflecting identified topics where refinements could drive ICRP future recommendations.

### Working parties

**Circulatory diseases:** Based on the WP's review of recent literature, C1 agreed that the terms of reference of a potential new TG should be drafted. Several C1 members volunteered to help produce a first draft of the ToR by the end of Q1 2020.

**Non-radiation factors in detriment calculation:** Several members will join the WP with a special focus to investigate alternative concepts to detriment. The WP will report their findings at the next C1 annual meeting.

**Evaluation of recent risk models used for detriment calculation:** Several C1 members agreed to join the WP to examine how risk models should be updated in light of the most recent findings mainly from the LSS. This WP will report findings at the next C1 annual meeting in order to deliberate whether it should become a TG.

**Hereditary and transgenerational effects:** The WP is ready to propose the terms of reference of a TG to C1 and then to the ICRP scientific secretariat by the end of January 2020. The MC could be solicited for a postal ballot before their meeting in May.

**RBE and radiation weighting factors:** This new WP will review ICRP Publication 92 and current literature including new findings from animal data, in order to examine whether recent evidence could have major implications for RBE and radiation weighting factors, which would inform the decision of whether to create a new TG.

### Task Groups

**TG 99 on Reference Animals and Plants (RAPs) Monographs** proposed new definitions for RAP and DCRL that were discussed between C1 and C4. The changes reflect the available underlying data at the level of taxonomic class rather than family (*i.e.*, mammals instead of rat or deer) and the meta-analysis method used to derive DCRL. The plan is to circulate the report during Q1 2020, except for the "transfer" section which will come later.

**TG 111 on Factors Governing the Individual Response of Humans to Ionising Radiation** kicked off last December in Japan, in conjunction with an open ICRP-QST-RERF workshop in Tokyo. The workshop summary will be published soon as a review paper in *Radiation and Environmental Biophysics*. The C1-C3 TG started a limited review of *ca.* hundred publications in English from 1989 to today, and agreed on evaluation criteria. TG 111 will meet in Sept 2020 in Stockholm in conjunction with a 2-d workshop co-organised with the Swedish Academy of Sciences, on individual responses of normal tissue and cancer tissue to ionising radiation. Several TG 111 members will give lectures during the workshop.

**TG 115 on Risk and Dose Assessment for Radiological Protection of Astronauts** kicked-off on November 20, 2019. The TG agreed on a first step focusing on lunar missions where various approaches will be compared on the basis of two example missions, in order to harmonise and evaluate the appropriateness of different risk metrics; a second step will be dedicated to deep space exploration missions and associated radiological protection guidance.

The report from **TG 64 on Cancer Risk for Alpha Emitters** is ready for being approved by the MC for public consultation during Q1 2020. The final version of the report from **TG 102 on Detriment Calculation Methodology** is also nearly ready. **TG-91 on Radiation Risk Inference at Low Dose and Low Dose Rate Exposure for Radiological Protection Purposes** is on the way to a draft version.

The next meeting of C1 is expected to take place in Stockholm, 31 August – 2<sup>nd</sup> September 2020.