

ICRP Committee 1 Meeting

September 19-21, 2018 – Chicago, USA

The meeting was hosted by Gayle Woloschak at the Northwestern University. Some of the C1 members missed the meeting for various reasons. We were sad to learn after the meeting that Ranajit Chakraborty died on Sept 24, 2018. Preetha Rajaraman missed the last two meetings. At present, C1 strongly needs expertise in the field of genetics and genetic epidemiology.

Working parties:

Individual radio-sensitivity: C1 discussed the many factors which, to a different degree, influence the responses of individual people to radiation (age and sex, life style, e.g. smoking, diet, and environmental factors, genetics and epigenetics, stochastic distribution of lethal cellular events, and possibly body mass index, systemic comorbidities such as diabetes or viral infections...etc.). Additionally, the intrinsically radiosensitive phenotype among a population of healthy individuals is considered to be a multi-factorial, complex trait. There was an agreement to propose the establishment of a new TG about "Factors governing individual radiation response". Simon Bouffler was proposed from C1 as chair of the TG, alongside M Hauptmann and A Wojcik as full members. The dedicated workshop co-organised in Japan (ICRP-QST-RERF) will serve as a kick-off event for this TG.

Circulatory diseases: No advance was made since last year: members of the WP are currently screening the recent literature for papers published after the recent IAEA draft report (unofficial so far). They plan to have an update ready for the next C1 meeting.

Task Groups:

Cancer risk for alpha emitters: *TG 64 on Cancer Risk for Alpha Emitters* is finalising the report under the coordination of two new co-chairs due to M Tirmarche's retirement (R Wakeford for C1 and E Blanchardon for C2). This report is the first comprehensive review on Pu and lung cancer. A comparison of lung cancer risk and dose between Pu and Rn will be incorporated into the final report.

DDREF: *TG-91 on Radiation Risk Inference at Low Dose and Low Dose Rate Exposure for Radiological Protection Purposes* updated its action plan. The title of the report was proposed to be "Scientific Evidence of Low Dose and Low Dose Rate Effects". The final report will include a discussion of the LSS incidence data. The report is currently being drafted and a final version is expected in 2019.

Effects on non-human species and environmental protection: *TG 99 on Reference Animals and Plants (RAPs) Monographs* plans a TG meeting at the beginning of 2019 in order to discuss: the derivation method of DCRL and outcomes, electronic annexes to deliver supporting information to the main document (i.e. TG-99 report). The work status will be presented to the MC (first 2019 meeting). The complete draft report will be submitted to the MC within one year.

Detriment calculation methodology: *TG 102 on Detriment Calculation Methodology* is currently revising its report to take into account comments from internal reviewers and critical reviewers. The final version will be sent to the MC next spring 2019.

New Working Parties:

Three new WPs were proposed to the MC: M Hauptmann will deal with the one on *non-radiation input data* such as lethality, quality of life etc.; R Wakeford will lead one on *evaluation of recent risk models*, and S Salomaa and J Garnier-Laplace will co-lead one on *hereditary and transgenerational effects*.

The next meeting of C1 is expected to take place in Adelaide, back to the ICRP Symposium.