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ICRP Committee 1 Meeting

October 09-14, 2017 – Paris, France

During the first meeting of the 2017-21 term, Committee 1, with a composition renewed at about 30%, covered a wide range of on-going and new activities. C1 now also includes expertise to move towards an integrated system for radiological protection including effects on non-human species.

Working parties:

Individual radio-sensitivity: The Working Party will produce a review of relevant publications released since the HPA-AGIR report (2013) on individual radio-sensitivity and radio-susceptibility, to clarify whether predictive assays/markers are already available and to identify open questions. The report will be discussed with C3 and a joint C1-C3 proposal for the follow up will be proposed to the Main Commission at its next meeting.

Circulatory diseases: The Working Party will prepare a review for the next C1 meeting. This report will help to address the question whether or not such diseases are to be categorised as deterministic or stochastic, with potential implications on detriment calculation.

Task Groups:

Cancer risk for alpha emitters: ***TG 64 on Cancer Risk for Alpha Emitters*** will finalise a draft report by end of Q4 2017. In the meantime, the results from the study with new dosimetric model will help to understand the impact on the conclusion of the report, especially regarding the RBE issue. Accordingly this will be incorporated into a final report, and discussed, for a presentation at the next MC meeting.

DDREF: ***TG-91 on Radiation Risk Inference at Low Dose and Low Dose Rate Exposure for Radiological Protection Purposes*** updated its action plan. A number of articles were published by TG members in scientific journals, for example on the results of a meta-analysis comparing risk estimates from low-dose-rate epidemiological studies with those from the life span study on Japanese atomic bomb survivors, the use of biologically-based mechanistic models to describe epidemiological data, and results of a re-evaluation of low-dose and low-dose-rate effects among data from historical animal experiments.

Effects on non-human species and environmental protection: With its extended mandate, C1 is now involved in an ongoing ***TG 99 on Reference Animals and Plants (RAPs) Monographs*** whose purpose is to establish a link between RAPs and Representative Organisms for risk assessment. This TG will deliver a methodological report illustrated for some RAP-type wildlife groups (mammals & fish). A presentation of the major elements of this work and its related key concepts will be given by C1 and C4 chairs to the MC during the next MC meeting, to obtain feedback on the overall approach. A complete draft version is planned for fall 2019.

Detriment calculation methodology: The added value of the ***TG 102 on Detriment Calculation Methodology*** is to establish a solid basis for future ICRP recommendations. Thus, the TG reviews the process of detriment calculation and documents it in a reproducible manner, considering ways in which different approaches might be applied when new data become available.

Interaction with other Committees:

During the Paris meeting, C1 met with C4 and discussed detriment as well as low-dose and low-dose-rate effects, and the issue of environment (see above). C1 discussed the report of ***C2 TG 79 on Effective Dose***, which will be soon submitted for public consultation. This report was also discussed in a joint C1 and C2 meeting, while in a joint C1 and C3 meeting, the importance of individual radio-sensitivity and radio-susceptibility was addressed.

The next meeting of C1 is expected to take place in Chicago, 19-21 September 2018.