

TASK GROUP 121

Effects of Ionising Radiation Exposure in Offspring and Next Generations

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Background

The potential for radiation-related deleterious effects in offspring is a recurrent issue for the general public and a major concern for parents exposed to ionizing radiation from occupational, medical or environmental sources.

There is a lack of knowledge (and subsequent uncertainties in risk estimates) about:

- the fundamental mechanisms underlying potential radiation-induced genetic diseases
- the contribution of epigenetic processes to adverse outcomes if any
- the potential contributory role of lifestyle, physiological, and maternal vs paternal factors.

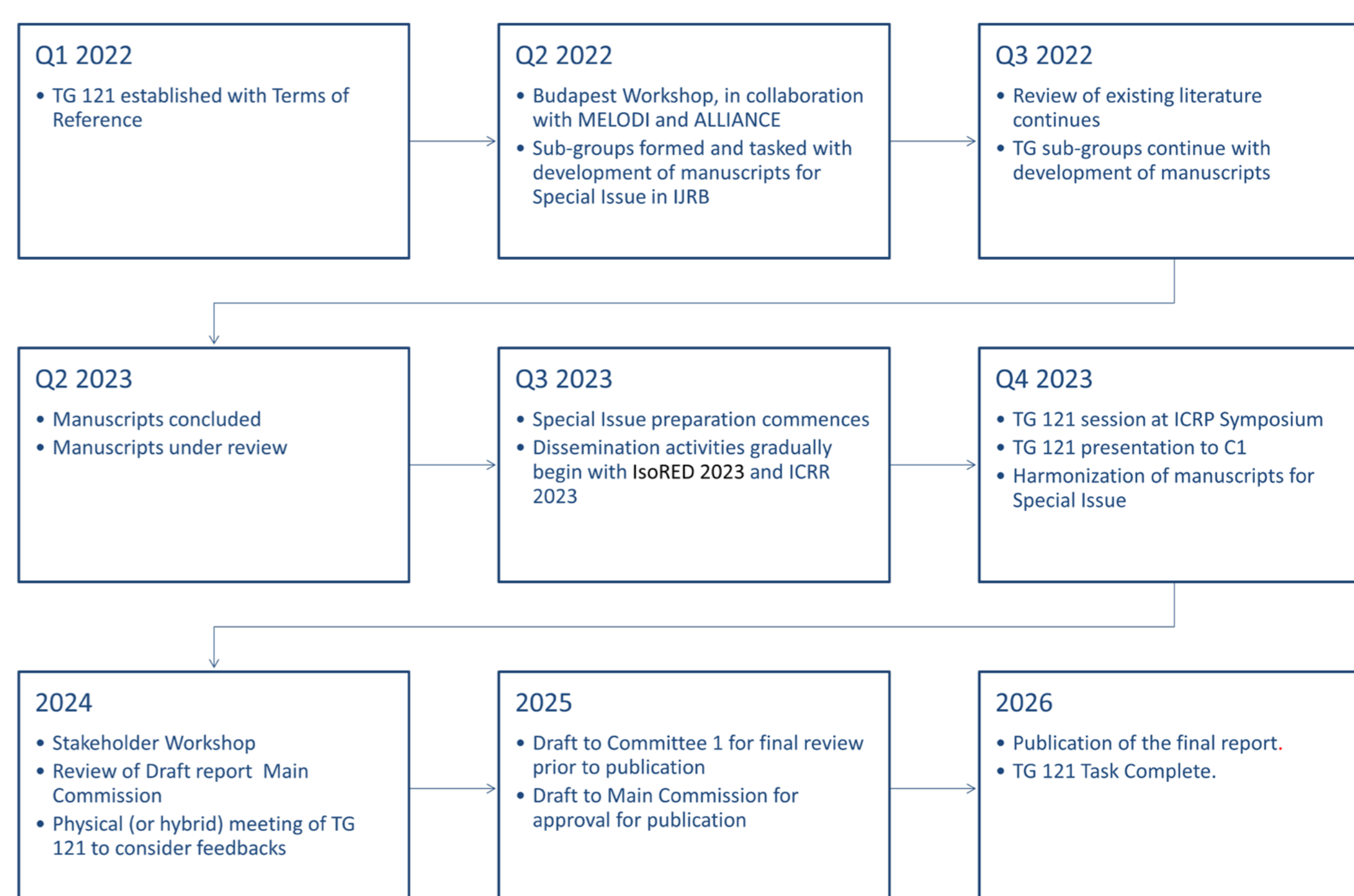
This uncertainty is reinforced by a number of studies at variance:

- Laboratory vs. field studies
- For various fauna and flora species
- Between humans and non-human species

Objectives

- To update the review of the scientific literature related to radiation-induced effects for the offspring of individuals exposed to ionizing radiation, for both human and non-human species.
- To provide advice about the level of evidence and consideration of these effects in the system of radiological protection for humans and non-human biota.

Timeline



The Task Group will develop an ICRP publication that reviews the scientific literature related to radiation-induced effects for the offspring of individuals exposed to ionizing radiation, for both human and non-human species.

This publication will be one of the constitutive elements prepared to support the global revision of the radiological protection recommendations undertaken by the ICRP.

TG 121 Workshop 31 May - 2 June 2022

WORKSHOP

Effects of Ionising Radiation Exposure in Offspring and Next Generations

31st May – 2nd June 2022
Budapest, Hungary



In parallel with the 6th European IRPA Congress

Jointly organized by ICRP Task Group 121 under Committee 1 and European Radiation Protection Research Platforms MELODI and ALLIANCE



The Workshop “Effects of ionising radiation exposure in offspring and next generations” jointly organized by ICRP Task Group 121 and European Radiation Protection Research Platforms MELODI and ALLIANCE took place in Budapest from May 31st to June 2nd 2022 promoted discussions. Based on the discussions and presentations during the breakout sessions, newer publication, and gaps on the current scientific literature were identified. A total of 12 manuscripts have been prepared and under review for publication in a special issue of the International Journal of Radiation Biology – an editorial and a glossary of terms will be published in the same issue as well.

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