

Low Dose Risk Research in EURATOM FP6

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* Presenting the Euratom FP6

Abstract:

The Programme Objectives oriented toward a better quantification of risks from low and protracted exposures through, Epidemiological studies, and Understanding mechanisms from molecular and cellular biology research.

Low doses should be interpreted as typical of those encountered in the workplace, the environment and in diagnostic radiology

In FP6 totally 10 research programs were granted, five in each category, as follows:

Epidemiological studies:

- SOUL (12 M€) – Southern Urals Radiation Risk Research
- ALPHA RISK (4.4 M€) – Risks from internal exposure (mainly alpha)
- GENE RAD RISK (2 M€) – Role of dose and genetic susceptibility on breast cancer
- RACE (1.4 M€) – Cardiovascular disease in breast cancer patients treated with radiotherapy
- CHILD MED RAD (0.5 M€) – Feasibility of establishing prospective cohort of CT exposed infants/children
- ARCH (0.3 M€) – Strategic plan for Chernobyl research

Mechanistic research programmes:

- RISC-RAD (16 M€) – Integrated approach to low dose radiation effects
- NOTE (11 M€) – Non-targeted effects
- GENRISK-T (4.4 M€) – Genetic component of thyroid risk at low doses
- GENEPI low RT (1.8 M€) – Low dose radiosensitivity and risk to normal tissue after radiotherapy
- CARDIORISK (3.8 M€) – The mechanisms of cardiovascular risk after low radiation doses

Data-bases that will be generated can have a large potential for the quantification of radiation risks due to protracted exposures with external radiation.

The outcomes should improve modelling of multi-stage tumour progression and risk assessment to radiation.

FP7 is the establishment of a High Level and Expert Group which is developing a strategic research agenda for future low dose risk research in Europe and how this can be implemented.