

## **Dosimetric Models Used in the Alpha-Risk Project to Quantify Exposure of Uranium Miners to Radon Gas and its Progeny**

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The European project Alpha-Risk aims to quantify the cancer and non-cancer risks associated with multiple chronic radiation exposures by epidemiological studies, organ dose calculation and risk assessment. In the framework of this project, mathematical models have been applied to the organ dosimetry of uranium miners who are internally exposed to radon and its progeny as well as to long-lived radionuclides present in the uranium ore. This paper describes the methodology and the dosimetric models used to calculate the absorbed doses to specific organs arising from exposure to radon and its progeny in the uranium mines. The results of dose calculations are also presented.

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