

## Radiation Epidemiology Study of Nuclear Workers in Japan: past and present of J-EPISODE

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It is well known that radiation health risk estimation for radiation protection is based on the epidemiological data from the results of LSS (Life Span Study) of Atomic Bomb Survivors. This health effect data is the result of single- and acute-exposure to relatively high-dose and -dose rate radiation, and therefore, it is still challenging to estimate the health risk of the radiation of the exposure level of nuclear industry workers during normal operation, i.e., over ten mSv order, from the LSS study. To evaluate health risk of nuclear industry workers in Japan, the successive regulatory agencies of Japanese government had been committing an epidemiological study to the Institute of Radiation Epidemiology (IRE) of the Radiation Effects Association (REA), Japan. This study will later be called as J-EPISODE.

The first period of study initiated in the year 1990. Until today, study results have been published every 5 year, and total 5 periods of the mortality follow up survey had been completed. Present sixth period study started in year 2016 and, following the development of the law on the protection of personal information of research in Japan, informed-consent procedure by opt-in was introduced for the first time in this study. Respondents those agreed to cooperate with this survey were requested to answer the questionnaire about their daily lifestyle. Questionnaires are developed based on the results of the previous analysis which discovered particular kinds of the lifestyle factors confound the relationship between radiation dose and cancer mortality in this survey. Furthermore, in addition to the mortality follow up, cancer incidence follow up is also planned to be included in the sixth period of study or later, based on data expected to be provided from the National Cancer Registry of Japan which is now developing and planning to be established within year 2018.

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