

Research projects on 5G and health funded by Japanese government

Chiyoji OHKUBO
Japan EMF Information Center

With the rapid expansion of RF-EMF applications following the recent spread of mobile phones and commercialization of new radio systems, there are more chances for people to use radio waves every day, which results in growing concern as to the adverse health effects of radio waves among the general public.

After the closure of the Committee to Promote Research on the Possible Biological Effect of Electromagnetic Fields (1997 - 2006), the researches on safety evaluation of RF-EMF have been continued and new research topics including 5G have been issued. It is necessary to evaluate and analyze the new research results worldwide, and conduct reviews, including determining the research topics to be addressed for the better health risk assessments by the committee.

Under such circumstances, the Ministry of Internal Affairs and Communications (MIC) established a new committee on the possible adverse health effects of radio frequency electromagnetic fields for the purposes of promoting researches by evaluating and analyzing the research results on the possible adverse health effects of RF-EMF on humans and determining the research topics to be addressed, and of constructing a society in which people can use RF-EMF safely and securely, by evaluating and validating the Radio Radiation Protection Guidelines (RRPG: MIC guidelines) in 2007.

Japanese research project topics relate 5G in 2019 are as follows:

- Research on safety evaluation technologies for advanced RF applications
- Study on biological effects of submillimeter to millimeter waves on human body
- Investigation of cellular effects by exposure to electromagnetic waves using cells having different genetic background and standard evaluation system
- Effect of age and ambient conditions on thermal thresholds for microwave exposure
- Thermal pain threshold for radio-frequency exposures
- Acquisition, accumulation and applications of EMF exposure monitoring data
- The effect of radio frequency wave on children's health: Epidemiological study
- Study of eye damage threshold of millimeter-wave exposure under various environmental conditions
- A feasibility study on the standardization of research designs to assess possible health hazards of exposure to EMF