

November 25, 2024

A recent report on “Radiofrequencies and Cancer” that was submitted to ANSES for comment concluded

- 1) “all the epidemiological data do not allow us to conclude that radiofrequencies have a carcinogenic effect on humans,”
- 2) “available evidence is too limited to conclude that radiofrequency radiation has a carcinogenic effect in animals, and
- 3) “available evidence is limited to suggest that exposure to radiofrequencies induces a set of mechanisms involved in carcinogenesis.”

Those conclusions were made despite the fact that

- 1) multiple meta-analyses of case-control studies have found significant increases in brain tumor risk associated with exposure to radiofrequency radiation emitted from mobile phones (e.g., Choi et al, 2020; Moon et al, 2024);
- 2) two large chronic studies of mobile phone radiation in experimental animals (National Toxicology Program, 2018; Ramazzini Institute, 2018) reported significant increases in incidence and/or trends of brain gliomas and heart schwannomas, and which demonstrated concordance between rats and humans in cell types affected; and
- 3) more than 90% of studies that have evaluated effects of radiofrequency radiation on biomarkers of oxidative stress have demonstrated the induction of oxidative effects at exposures to low intensity radiofrequency radiation (ICBE-EMF, 2022). Importantly, induction of oxidative stress is a key characteristic of many human carcinogens that can lead to genotoxicity and carcinogenicity (Smith et al., 2016), and Lai (2021) identified more than 150 published studies in which non-thermal exposures to radiofrequency radiation produced increases in DNA damage, chromosome aberrations, or micronuclei formation.

The totality of the above findings strengthens IARC’s conclusion from 2011, when radiofrequency radiation was classified as possibly carcinogenic to humans (IARC 2013). To

dismiss those findings in order to maintain current exposure limits to radiofrequency radiation is not in the best interest of public health.

The extensive scientific literature on adverse effects of radiofrequency radiation should alert public health agencies of risks to human health, including cancer, in order for exposure limits to be set to levels that minimize those risks.

It is ironic that ANSES has been given an “expert appraisal report” that dismisses the large number of studies showing evidence of cancer risk associated with exposure to radiofrequency radiation, while not even questioning the basis and validity of ICNIRP’s recommended exposure limits to this form of radiation.

Is ANSES aware of the fact that ICNIRP’s exposure limits are based on studies from the 1980s in which 8 male rats or 5 male monkeys were exposed to various intensities of radiofrequency radiation for up to one hour and evaluated for a single behavioral response (rate of pressing a lever to deliver food)?

Furthermore, from those limited studies ICNIRP determined that an SAR of 4 W/kg was the threshold dose below which no health effects could occur, and that applying arbitrary safety factors to that SAR value would lead to safe levels for workers and the general population (ICBE-EMF, 2022).

Surely, ANSES must recognize that those acute behavioral studies of a single endpoint in a small number of animals do not provide a comprehensive evaluation of health risks of radiofrequency radiation and that they are not suitable for setting safe levels for chronic exposures of humans to radiofrequency radiation.

Yet, ANSES follows ICNIRP’s guidance and recommendations. ANSES should not be misled by outdated experiments and ICNIRP’s misuse of those data to set exposure limits to radiofrequency radiation.

For other environmental agents, ANSES would not rely on similarly inadequate data to assess cancer risk and recommend exposure levels that minimize those risks. ANSES prides itself on its mission to assess a wide range of risks to human health and the environment, and to make the world a safer and healthy place for all.

Unfortunately, when it comes to radiofrequency radiation, ANSES has not lived up to its stated mission.

By contrast, we find that the minority position of Gérard Ledoigt focuses on the correct areas and on important mechanisms, particularly metabolism and mitochondria, that seem to escape the attention of the main ANSES report. Dr. Gérard Ledoigt discusses these important questions with competence and aplomb. We are at a loss to explain why his voice was not taken more seriously.

Kind regards,

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