Evidence of Harm

Dr. Martin Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences at Washington State University, recently completed a survey or meta-study of the accumulated peer reviewed, independent research on evidence of human health impacts from wireless radiation exposure. Here's how he summarizes what he found.

"We know that there is a massive literature, providing a high level of scientific certainty, for each of eight pathophysiological effects caused by non-thermal microwave frequency EMF exposures. This is shown in from 12 to 35 reviews on each specific effect...providing a substantial body of evidence on the existence of each effect. Such EMFs:

- Attack our nervous systems including our brains leading to widespread neurological/neuropsychiatric effects and possibly many other effects. This nervous system attack is of great concern.
- Attack our endocrine (that is hormonal) systems. In this context, the main things that make us functionally different from single celled creatures are our nervous system and our endocrine systems even a simple planaria worm needs both of these. Thus the consequences of the disruption of these two regulatory systems is immense, such that it is a travesty to ignore these findings.
- **Produce oxidative stress and free radical damage**, which have central roles in essentially all chronic diseases.
- Attack the DNA of our cells, producing single strand and double strand breaks in cellular DNA and oxidized bases in our cellular DNA. These in turn produce cancer and also mutations in germ line cells which produce mutations in future generations.
- **Produce elevated levels of apoptosis (programmed cell death),** events especially important in causing both neurodegenerative diseases and infertility.
- Lower male and female fertility, lower sex hormones, lower libido and increased levels of spontaneous abortion and, as already stated, attack the DNA in sperm cells.
- Produce excessive intracellular calcium [Ca2+]i and excessive calcium signaling. Attack the cells of our bodies to cause cancer. Such attacks are thought to act via 15 different mechanisms during cancer causation.

"There is also a substantial literature showing that EMFs also cause other effects including life threatening cardiac effects. In addition substantial evidence suggests EMF causation of very early onset dementias, including Alzheimer's, digital and other types of dementias and there is evidence that EMF exposures in utero and shortly after birth can cause ADHD and autism.

"Each of these effects is produced via the main mechanism of action of microwave/lower frequency EMFs, activation of voltage-gated calcium channels (VGCCs)...."

https://einarflydal.files.wordpress.com/2018/04/pall-to-eu-on-5g-harm-march-2018.pdf