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**Open Letter: From Electromagnetic Smog to Electromagnetic Chaos  
Evaluating the Hazards of Mobile Communication for Public Health**

To whom it may concern,

I am a Doctor of Medical Sciences, Deputy Chairman of the Scientific Council on Radiobiology of the Russian Academy of Sciences, President of the Russian National Committee of Non-Ionizing Radiation Protection (RNCNIRP), Member of the Russian Scientific Commission on radiation protection, Member of the WHO Advisory Committee on the International Program "EMF and Public Health", Member of the International Commission on Electromagnetic Safety (ICES), Member of the section on Space Biology and Medicine at the Russian Academy of Science, Member of the Editorial board of the Russian journal *Radiation biology. Radioecology* and Senior Researcher of the Federal Medical Biophysics Center "A.I.Burnasian".

For 50 years I have been working on evaluating the hazards of the biological action of ionizing and non-ionizing radiation. I am very concerned with the increasing electrosmog from wireless communication and its impact on mankind, especially on children.

Over the past 25 years, there has been a massive change in the electromagnetic environment on Earth, associated with the widespread use of wireless communications. Artificial electromagnetic pollution has been significantly increased and therefore the methodology for assessing the health risks in all population groups needs to be revised.

Many authors are still neglecting the principles laid down in radiobiology on how to assess the danger of living systems being exposed to electromagnetic radiation (EMR) in the microwave range at low but prolonged non-thermal intensities. They overlook, for example, the essential role of critical organs and critical systems, the possible accumulation of adverse effects and residual damages (long-term consequences). They underestimate the consequences of brains being exposed daily to microwave EMR.

In some cases, the increased risk for brain tumors after a long period of active use of cell phone is considered. But, at the same time, in most countries there is a complete disregard for the precautionary principle proposed by the World Health Organisation (WHO) and for the recommendations of the International Agency for Research on Cancer (IARC) that classified microwave EMR from wireless systems as a potential carcinogenic in 2011.

For the first time in the entire period of civilization, children are included in the risk group. The potential risk for their health is very high and is a completely new problem. The WHO has highlighted that children are more vulnerable to environmental factors than adults: *"Children are different from adults. Children have a unique vulnerability. As they grow and develop, there are "windows of susceptibility": periods when their organs and systems maybe particularly sensitive to the effect of certain environmental threats"* (WHO, Backgrounder N 3, 2003. 5p).

There have long been significantly different approaches in developing standards for exposure to microwave EMR and discussions on the possible adverse biological effects of non-thermal low-level exposure are still on going. But what is becoming more and more obvious nowadays is that more stringent regulations are needed to protect health.

The introduction of the 5G standard cellular components will significantly increase the intensity of microwave exposure of all population groups, including children; whilst in most countries official authorities remain silent about the possible danger of mobile devices and networks for the population.

Because a proper assessment of the danger of electromagnetic exposure is still missing in the decision-making processes regarding wireless technologies, the public health is seriously at risk and the situation may become completely chaotic in the coming years.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Yuri Grigoriev', written in a cursive style.

Professor Yuri Grigorievich Grigoriev

## References

Russian National Committee on Non-Ionizing Radiation Protection. Prof. Yu. Grigoriev, Decision, "Electromagnetic field of mobile phones: the impact on the health of children and young people", Radiation Biol. Radioecol. 2011 Jul-Aug; 51(4):483-7

Russian National Committee on Non-Ionizing Radiation Protection and EMF RF standards, Prof. Yu. Grigoriev, "New conditions of EMF RF exposure and guarantee of the health to population", Prof. Yu. Grigoriev  
[https://www.radiationresearch.org/wp-content/uploads/2018/06/021235\\_grigoriev.pdf](https://www.radiationresearch.org/wp-content/uploads/2018/06/021235_grigoriev.pdf)

L. Hardell, M. Carlberg, "Comments on the US National Toxicology Program technical reports on toxicology and carcinogenesis study in rats exposed to whole-body radiofrequency radiation at 900 MHz and in mice exposed to whole-body radiofrequency radiation at 1,900 MHz", Int. J. oncology, accepted October 3, 2018. DOI: 10.3892/ijo.2018.4606

Yu. Grigoriev, N. Khorseva, "Mobile communication and children health. An assessment of the hazard of mobile communication to children and adolescents. Recommendations to children and parents", Moscow, Economical, 2004, 230 p. (In Russian).

## Areas of research of Pr Yuri Grigorievich Grigoriev

Biological action of ionizing and non-ionizing radiation, evaluation of the hazard of action of physical factors on mankind, including children. From 1949 till 1989, research in the National program for atomic energy. In 1986, member of the Governmental commission for liquidation of the damages in Chernobyl Atomic Power Station.

Leading scientist during 14 years in the research on radiation safety of Soviet astronauts, space radiobiology, extreme physiology, standardization of action of physical factors in the environment. Internationally recognized since 50 years as an expert on biological action of high frequency electromagnetic fields in relation of potential hazard of wireless communication for population.

In his long life in science Prof. Grigoriev created a school for experts in radiobiology of ionizing and non-ionizing radiation, extreme physiology and hygiene. He was mentor of more than 70 scientists who defended medical doctor degree and doctor of science degree.

Author of 21 monographic books and more than 400 peer-reviewed papers published in national and international journals.