

National Report: Hungary 2022

International EMF Project, 28th International Advisory Committee meeting
2023. June 6-8, Geneva

1) General research activities related to EMF and health

- Evaluation of micronucleus (MN) and DNA damage by alkaline comet-assay and γ H2AX Assay in vitro of human lymphocytes exposure to intermediate frequency (IF) magnetic fields (*National Public Health Center, Unit of Non-Ionizing Radiation, NPHC*).
- In vitro study on possible mechanisms of adaptive response (AR) induced by RF and IF (*NPHC*).
- Evaluation of micronucleus (MN) and DNA damage by alkaline comet-assay and γ H2AX assay in vitro of human skin keratinocytes exposure to combined RF and UV exposure (*NPHC*).
- Human cognitive and EEG studies on 5G FR1 3,5 GHz exposure. Participation in the GOLIAT Horizon Europe project (*NPHC, University of Pécs*).
- Measurement campaign and survey Public RF exposure due to 5G and other mobile services. Participation in the GOLIAT Horizon EU project (*NPHC*)
- Survey of Public RF exposure around radio and television broadcast and mobile base stations (*NPHC and National Media and Infocommunications Authority-NMHH*)
- Design an automatic simulation system of public exposure to RF (*National Media and Infocommunications Authority-NMHH*)

2) New policies and legislations regarding to EMF exposure

2.1 No new legislation released in the last year.

2.2 Planned initiatives:

The process to put into national legislation of 2013/35/EU Directives has been started. The EU Directives are applied in practice for evaluation the occupational exposure to EMF.

3. Areas of public concern and national responses

3.1 The public concern is continuously permanent on the same level approximately for many years. The main issue is the mobile base stations and 5G.

3.2 The second topic of the public concerns is the electric power transformers. In Hungary the 10/04kV transformer stations are typically installed in the basement or ground floor of multi-storey apartment buildings. Magnetic fields up to several tens of μ T have been measured in apartments or offices located close to transformers. Residents are concerned about the possible health effects of magnetic fields

3.3 Spreading in the market the new therapeutic devices (beds, mattress, pillow etc.) for PMF magnetic therapy distributed by SMEs with very low level scientific justification of therapeutic effects.

4) New public information activities

4.1 The *National Public Health Center* publishes information about the EMF, UV exposure and human health (www.nnk.gov.hu).

4.2 Information available for the public about the EMF exposure to RF at the homepage of the *National Media and Infocommunications Authority*
<https://nmhh.hu/szakmai-erdekeltak/hirkozles-felugyelet/elektroszmog>

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