

Dear Contributor,

Thank you for participating in the public consultation of the ICNIRP draft guidelines.

Please note that it is important that ICNIRP understands exactly the points that you are making. To facilitate our task and avoid misunderstandings, please:

- be concise
- be precise
- provide supporting evidence (reference to publication, etc.) if available and helpful.

**How to complete the comments table:**

Please use 1 row per comment. If required, please add extra rows to the table.

This response document asks you to provide your 'comment', your 'proposed change', and the 'context' to this comment and proposed change. What is meant by these is the following:

**Comment :** A brief statement describing the issue that you have identified (and that you would like ICNIRP to take into account in the final version of the guidelines).

**Proposed Change:** A brief statement describing how you would like the document changed to account for this issue.

**Context:** A brief statement identifying relevant documents in support of your comment and proposed change.

**Please, provide your details below as per the online form and the provision of the privacy policy**

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| Last name, first name: Hansson Mild, Kjell and Hardell, Lennart   | Email address: | Affiliation (if relevant): Dept Radiation Sciences, Umeå University, Sweden (Hansson Mild) and The Environment and Cancer Research Foundation, Örebro, Sweden (Hardell) |
| If you are providing these comments officially <b>on behalf</b> of an organization/company, please name this here: <i>organization/company</i>  |                |   |
| <input checked="" type="checkbox"/> I hereby agree that, for the purpose of transparency, <b>my identity (last and first names, affiliation and organization where relevant) will be displayed</b> on the ICNIRP website after the consultation phase along with my comments.<br><br><input type="checkbox"/> I want my comments to be displayed anonymously. |                |   |

|   | Document<br>(Guidelines,<br>App A,<br>App B) | Line<br>Number<br># | Type of<br>comment<br>(General/<br>Technical/<br>Editorial) | Comment. Proposed change. Context.  |
|---|--|---------------------|---|---|
| 1 | Appendix B                                   | 330-406             | General   | <p>Surprisingly now in the backgrounder to the new ICNIRP guidelines they choose to ignore the recent IARC classification of RF exposure as class IIB , possibly carcinogenic to humans (IARC 2013). They now also disregard the latest animal studies (NTP, 2018; Falcioni et al, 2018) on carcinogenesis. These have been discussed in a commentary by Melnick (2018) and clarified to that degree that they should have been considered in full.</p> <p>After the IARC evaluation 2011 on RF exposure several other epidemiological studies have been published and they have been discussed by Miller et al (2018). In their conclusion they say that the studies reported after the IARC evaluation are adequate to consider RF exposure as a class IIA, probable human carcinogen. Together with the new animal findings they also argue for an upgrade of IARC classification to class I, carcinogenic to humans.</p> <p>Professor James C. Lin has recently made comments on the new animal experiments (2018) in a paper entitled “Clear evidence of Cell-Phone RF radiation Cancer Risk”. He ends his comments with the “While complacencies abound for short-term exposure guidelines in terms of proving safety protection, an outstanding question persists concerning the adequacy of these guidelines for safe, long-term RF radiation at or below 1.6 or 2.0 W/kg. Perhaps the time has come to judiciously reassess, revise, and update these guidelines.”</p> <p>We agree fully with this statement by Professor Lin and urge ICNIRP to reassess and revise the suggested guidelines in order to incorporate an adequate margin of safety also for long-term exposure.</p> <p>References</p> <p>Falcioni L, Bua L, Tibaldi E, Lauriola M, De Angelis L, Gnudi F, Mandrioli D, Manservigi M, Manservigi F, Manzoli I, Menghetti I, Montella R, Panzacchi S, Sgargi D, Strollo V, Vornoli A, Belpoggi F. (2018). Report of final results regarding brain and heart tumors in Sprague-Dawley</p> |

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|  |  |  | <p>rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission. Environ Res. Aug;165:496-503. doi: 10.1016/j.envres.2018.01.037. Epub 2018 Mar 7.</p> <p>IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. (2013). Non-Ionizing Radiation, Part 2: Radiofrequency Electromagnetic Fields, IARC Monographs on the Evaluation of Carcinogenic Risks Humans. [Online]. 102(2), pp. 1–460. Available: <a href="https://monographs.iarc.fr/ENG/Monographs/vol102/mono102.pdf">https://monographs.iarc.fr/ENG/Monographs/vol102/mono102.pdf</a></p> <p>Lin JS. (2018). Clear evidence of cell-phone RF radiation cancer risk. IEEE microwave magazine, Sept/Oct 2018, pp 16-24.</p> <p>Melnick RL. (2018). Commentary on the utility of the National Toxicology Program study on cell phone radiofrequency radiation data for assessing human health risks despite unfounded criticisms aimed at minimizing the findings of adverse health effects. Environ Res. 2018 Sep 19;168:1-6. doi: 10.1016/j.envres.2018.09.010. [Epub ahead of print]</p> <p>Miller AB, Morgan LL, Udasin I, Davis DL. (2018). Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102). Environ Res. 2018 Jul 17. pii: S0013-9351(18)30347-5. doi: 10.1016/j.envres.2018.06.043. [Epub ahead of print]</p> <p>National Toxicology Program. (2018, Mar.). Peer review of the draft NTP technical reports on cell phone radiofrequency radiation. [Online]. Available: <a href="https://ntp.niehs.nih.gov/events/past/index.html">https://ntp.niehs.nih.gov/events/past/index.html</a></p> <p>Insert your proposed change.<br/>Explain the context of your comment.</p> |
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| <b>2</b>           | Document ? | Line number | Type of comment | Insert your comment.<br>Insert your proposed change.<br>Explain the context of your comment. |
| <b>3</b>           | Document ? | Line number | Type of comment | Insert your comment.<br>Insert your proposed change.<br>Explain the context of your comment. |
| <b>4</b>           | Document ? | Line number | Type of comment | Insert your comment.<br>Insert your proposed change.<br>Explain the context of your comment. |
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| <b>6</b>           | Document ? | Line number | Type of comment | Insert your comment.<br>Insert your proposed change.<br>Explain the context of your comment. |
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