

Author's response to reviews

Title: No effects of GSM-modulated 900 MHz electromagnetic fields on survival rate and spontaneous development of lymphoma in female AKR/J mice.

Authors:

Angela M Sommer (a.sommer@iu-bremen.de)
Joachim Streckert (joachim.streckert@uni-wuppertal.de)
Andreas K Bitz (bitz@uni-wuppertal.de)
Volkert W Hansen (hansen@uni-wuppertal.de)
Alexander Lerchl (a.lerchl@iu-bremen.de)

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Author's response to reviews:

Dear Mrs. Puebla,
enclosed please find a revised version of the MS: 1412239474311845:

No effects of GSM-modulated 900 MHz electromagnetic fields on survival rate and spontaneous development of lymphoma in female AKR/J mice.
by Angela M. Sommer, Joachim Streckert, Andreas K. Bitz, Volkert W. Hansen and Alexander Lerchl
for publication in BMC Cancer.

We appreciated the constructive criticism of both referees, which provided many very helpful suggestions and comments. The following points have been amended accordingly.
Additionally, an error, which had occurred during the unmasking of the exposure code, was corrected and some results changed. However, this had no influence on the general picture or the discussion.

Reviewer: Claudio Pioli

Major points

- 1) It was clarified in the methods section that in Streckert et al. (2000) the same exposure system and in Hansen et al. (1999) the basic concept of radial waveguide exposure devices were described.
- 2) The evaluation of the standard deviation value was now more clearly described.
- 3) Under "Results. Clinical picture" it was added that the lung was affected in 10% of all animals, and that no tumors of other sides as mammary gland or intestine had been found.
- 4) Results of histological and hematological analyses were added.
- 5) It was known from former handling of AKR/J mice that the time between first signs of the disease and death is very short. It may occur within few hours (e.g. after respiratory distress is shown) or few days. Therefore, as it was written in the methods section, animals were sacrificed as soon as we noticed that they were ill (or when the experiment ended after 42 weeks). Accordingly, tumor detection is equivalent to mortality and not shown additionally.

As the reviewer stated, lymphoma-associated mortality is high in this mouse strain. An influence due to electromagnetic field exposure may therefore not be visible in an increase in absolute death, but it should have been visible in the time curve of lymphoma development, which is not the case. For clarification, time of the first lymphoma appearance and the median survival time was added in the text in addition to the figure.

Minor points

The numbers in the methods paragraph of the abstract were clarified.
Some language corrections were performed.

Reviewer: Maren Fedrowitz

Minor points

- 1) It was corrected that the experiment lasted 42 weeks, after the animals reached an age of about 46 weeks.
- 2) The background section and discussion were reformulated accordingly.
- 3) It was added that both exposure units were located in the same room.

4) Misspellings were corrected.

We think that the ms has been substantially improved with the referees' comments and hope it is now acceptable for publication.

Sincerely,

Angela Sommer