From: **Theodora Scarato**<xxxxxx> Date: Tue, Jan 7, 2020 at 9:30 PM

Subject: Question about the NTP webpage on cell phone radiation

To: <rick.woychik@nih.gov>, <bruskec@niehs.nih.gov>

Dear Dr. Rick Woychik

Thank you for all you are doing in regards to radiofrequency radiation.

I had three quick questions in regards to this page:

https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html?utm_source=direct&utm_medium=prod&utm_campaign=ntpgolinks&utm_term=cellphone

- 1. On the NTP cell phones page it states that "A: NTP scientists have become more aware of my usage, but most haven't really changed their habits." Can you please clarify this with what the habits of NTP scientists are so this can be understood. *Does this mean more specifically that*
 - *NTP staff place the phone to their heads?*
 - How long do they do this?
 - *Are they ok with children placing phones to their heads and body?*
 - When NTP scientists are pregnant are they ok with the phone resting on the belly?
 - Which NTP scientists is this referring to the ones working in the study or the entire group of NTP scientists?

In light of the reference to NTP scientists use of phones on the website, this is an important clarification on the website content.

- 2. The webpage states "Heart cancer was seen in 5–6% of rats exposed to a higher power level—four times higher than the maximum human exposure." however occupational SAR limits for exposure at 8.0 w/kg SAR.
 - Will this be corrected? It is very important to note this because the highest NTP exposure level is lower than the occupational limit.
 - This issue also needs to be addressed also on the factsheet. *If not please explain why*.
- 3. The NTP factsheet on the cell phone studies needs to be updated to include the DNA findings which are published and conclude "Results of the comet assay showed significant increases in DNA damage in the frontal cortex of male mice (both modulations), leukocytes of female mice (CDMA only), and hippocampus of male rats (CDMA only). Increases in DNA damage judged to be equivocal were observed in several other tissues of rats and mice." "In conclusion, these results suggest that exposure to RFR is associated with an increase in DNA damage."

Smith-Roe SL, Evaluation of the genotoxicity of cell phone radiofrequency radiation in male and female rats and mice following subchronic exposure, Environ Mol Mutagen.

• *Will this be included in the factsheet?*

Thank you in advance and Happy New Year, Theodora Scarato

Theodora Scarato
Executive Director
Environmental Health Trust
EHTrust.org

Follow up letter sent after NTP page updated on January 10, 2020

----- Forwarded message -----

From: Theodora Scarato<

Date: Sun, Jan 12, 2020 at 1:41 PM

Subject: Fwd: Question about the NTP webpage on cell phone radiation

To: <rick.woychik@nih.gov>, <bruskec@niehs.nih.gov>

Dear Dr. Rick Woychik

Thank you for all you are doing in regards to radiofrequency radiation.

On January 7, 2020 (see email below) I sent some questions regarding this webpage with questions. https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html?utm_source=direct&utm_medium=prod&utm_campaign=ntpgolinks&utm_term=cellphone

I noticed that on January 9, 2020 the website was updated to show NTP scientists do reduce exposure. It used to state "NTP scientists have become more aware of my usage, but most haven't really changed their habits."

Now it states

"Q: Have NTP scientists changed their cell phone use or what they recommend to their families? A: NTP scientists have become more aware of their usage and follow the FDA's tips for reducing exposure to cell phone RFR:

- Reduce the amount of time spent using your cell phone, and
- Use the speaker mode or a headset to place more distance between your head and the cell phone."

But I still have clarification questions that are unanswered from below.

When NTP scientists are pregnant are they ok with the phone resting on the belly? There is nothing here about a dustance from the pregnant abdomen.

Which NTP scientists is this referring to the ones working in the study or the entire group of NTP scientists?

The FDA recs that are linked to are not a full picture of how to reduce exposure and do not include other sources of RF such as Alexa speakers ,Wi-Fi routers, Wi-Fi laptops and aso the best way to reduce exposure is to use a wired connection. Do NTP scientists know this and do they do these things? Note: The American Academy of Pediatrics says to reduce exposure with ten steps

- Use text messaging when possible, and use cell phones in speaker mode or with the use of hands-free kits.
- When talking on the cell phone, try holding it an inch or more away from your head.
- Make only short or essential calls on cell phones.
- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone
 manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe
 level.
- Do not talk on the phone or text while driving. This increases the risk of automobile crashes.
- Exercise caution when using a phone or texting while walking or performing other activities. "Distracted walking" injuries are also on the rise.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off. It's better to wait until you have a stronger signal before using your device.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.

In light of the reference to NTP scientists use of phones on the website, this is an important clarification on the website content.

- 2. The webpage states "Heart cancer was seen in 5–6% of rats exposed to a higher power level—four times higher than the maximum human exposure." however occupational SAR limits for exposure at 8.0 w/kg SAR. Will this be corrected? It is very important to note this because the highest NTP exposure level is lower than the occupational limit. This issue also needs to be addressed also on the factsheet. If not please explain why.
- 3. The NTP factsheet on the cell phone studies needs to be updated to include the DNA findings which are published and conclude "Results of the comet assay showed significant increases in DNA damage in the frontal cortex of male mice (both modulations), leukocytes of female mice (CDMA only), and hippocampus of male rats (CDMA only). Increases in DNA damage judged to be equivocal were observed in several other tissues of rats and mice." "In conclusion, these results suggest that exposure to RFR is associated with an increase in DNA damage."

Smith-Roe SL, Evaluation of the genotoxicity of cell phone radiofrequency radiation in male and female rats and mice following subchronic exposure, Environ Mol Mutagen.

Will this be included in the NTP factsheet? There is a section on other findings.

4. Will there be a press release on the DNA study or an article in the NIEHS newsletter?

Thank you in advance and Happy New Year Theodora Scarato