

For Express Mail
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For U.S. Mail
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U.S. Senate Commerce Committee
512 Dirksen Senate Building
Washington DC, 20510

Dear Chairman Wicker and ranking members:

I write on behalf of [Environmental Health Trust](#) (EHT) to provide you with a brief overview of the human health and environmental issues relating to 4G and 5G technology.

EHT promotes a healthier environment through research, education, and policy. We are the only nonprofit, nonpartisan organization in the world that not only carries out cutting edge research on environmental health hazards but also works directly with communities, health and education professionals, and policymakers to understand and mitigate these hazards.

To build the new 5G-ready infrastructure that will eventually support the Internet of Things, telecommunications companies are currently planning to put hundreds of thousands of new radiofrequency/microwave-emitting “small cell” mini cell towers across the country in front of homes, schools, and businesses.

Many localities have expressed concern because the [Federal Communications Commission](#) (FCC) and [some in Congress](#) have proposed to override local rights and pave the way for 5G, limiting local revenue while also banning any input regarding wireless facility siting.

Wireless radiation limits in the United States are more than 20 years out of date and do not adequately protect public health nor the environment. The FCC’s [1996 limits](#) were in fact based largely on outdated advice ([ANSI/IEEE C95.1-1992](#) and [NCRP’s 1986 Report](#)). [As stated by the EPA](#), these outmoded limits do not account for current cumulative, long-term exposures, nor are they designed to protect populations at greater risk such as children, pregnant women, the unborn, the elderly, those with chronic illness or special sensitivities, etc. Many organizations like the [American Academy of Pediatrics](#) and ours have urged the FCC to update radiation standards to better protect children’s health and reflect current use patterns. However, although the FCC opened proceedings ([ET Docket No. 13-84](#) and [ET Docket No. 03-137](#)) in response to a [2012 GAO report](#) calling for a reassessment of FCC limits, the FCC has yet to respond to the more than 1,000 comments it has received.

To date, no federal health agency has performed a systematic review of the research to determine a “safe” level of exposure nor to assess the safety of radiofrequency/microwave radiation, despite completion by the U.S. National Toxicology Program of a major [study](#) of cell

phone radiofrequency radiation which found “clear evidence” of a carcinogenic effect (and other effects) at non thermal levels of exposure.

In December 2018, scientists wrote a letter to the Food and Drug Administration asking them why they are rejecting the NTP findings and to provide the scientific documentation of their review of the scientific evidence. To date, no response has been received.

According to extensive published studies, radiofrequency/microwave radiation is associated with a wide array of adverse [health](#) and [environmental](#) effects, including but not limited to: [cancer](#), [reproductive harm](#), [DNA damage](#), [immune dysfunction](#), [damage to the blood brain barrier](#), [altered brain development](#), [disruptions to heart functioning](#), [mental health effects](#), [memory impairment](#), [sleep disturbances](#), [tree/plant/crop](#) damage, and disrupted [migration](#) and [orientation](#) of animals like birds and insects. 4G and 5G “small” cells will emit radiofrequency radiation.

Many countries such as China, India, Poland, Russia, Italy, and Switzerland have far more protective and strict radiofrequency [radiation limits](#), setting maximum exposure limits that are several times lower than in the United States.

Industry [reports](#) acknowledge that full 4G and 5G deployment will not be possible in countries where limits are stricter.

Concerned about the mounting evidence of public health and environmental harm from microwave radiation, scientists, doctors, and other experts around the world have called for [greater protection from wireless and electromagnetic radiation exposures](#) and a [moratorium on the rollout of 5G](#) until health and environmental hazards have been fully investigated by independent scientists.

Moreover, technological progress does not require this major increase in microwave radiation emitters and emissions. Wired systems are the safer, [healthier alternative](#) to wireless systems, as they do not emit harmful radiofrequency/microwave radiation. They can also be more energy-efficient, more cost-effective, and more reliable.

Sincerely,



Devra Davis, PhD, MPH
President, Environmental Health Trust

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Visiting Prof. Hebrew Univ. Hadassah Medical Center &
Ondokuz Mayıs Univ. Medical School
Associate Editor, *Frontiers in Radiation and Health*

Links:

1. [Compilation of Scientific Letters on Small Cells](#)
2. [Top Facts on 5G: What You Need To Know About 5G Wireless and “Small” Cells](#)
3. [Scientific Research on 5G, Small Cells and Health](#)
4. [A summary of the FCC Small Cell Order prepared by Next Century Cities and attorney Mark Del Bianco](#)
5. [Letter from Blumenthal and Eshoo to FCC Commissioner Brendan Carr on the Safety of 5G](#)
6. [Compilation of Ordinances in Cities Nationwide to Maintain Authority for Small Cell Placement.](#)

Attachments:

1. “Resources for Officials About Small Cells and 5G,” a PDF EHT put together to help city officials understand what 5G is, how it affects their localities, and what they can do
2. A compilation of the science on 4G and 5G technology.
3. Radiofrequency Electromagnetic Radiation and Health Recent US Government Reports: A Factsheet that links to the recent US government reports on the issue of wireless radiation and health.
4. Russell Cindy L. 5G wireless telecommunications expansion: [Public health and environmental implications](#). Environmental Research. April 11, 2018.
5. Miller AB, Morgan LL, Udasin I, Davis DL. [Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields \(Monograph 102\)](#). Available online Sep 6, 2018. <https://doi.org/10.1016/j.envres.2018.06.043>.
6. Letter by Scientists to the Food and Drug Administration on the National Toxicology Program Study.