

**Congress of the United States**  
**Washington, DC 20515**

July 18, 2019

Jeffrey Shuren, M.D., J.D.,  
Director of the Center for Devices and  
Radiological Health  
Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, Maryland 20993

Edward Margerrison, Ph.D.,  
Director of the Office of Science and  
Engineering Laboratories  
Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, Maryland 20993

Dear Dr. Shuren and Dr. Margerrison,

We're writing to request further information about the impact of radiofrequency (RF) exposure on human health. Specifically, we request a summary of the research that the Food and Drug Administration (FDA) has used to reach conclusions that the current safety limits for cell phone RF energy exposure is acceptable for protecting public health.

As you know, the Federal Food, Drug, and Cosmetic Act (FDCA) requires the Secretary of Health and Human Services to "establish and carry out an electronic product radiation control program," through which the Secretary shall "plan, conduct, coordinate, and support research, development, training, and operational activities to minimize the emissions of and the exposure of people to, unnecessary electronic product radiation."<sup>1</sup> Additionally, the FDCA requires the Secretary to "prescribe performance standards for electronic products to control the emission of electronic product radiation from such products if he determines that such standards are necessary for the protection of the public health and safety."<sup>2</sup> As such, FDA's public mission includes "ensuring the safety of...products that emit radiation," including cell phones.<sup>3</sup>

FDA's research of cell phone safety has three important uses. First, while FDA does not have pre-market review authorities for cell phones,<sup>4</sup> its information is "used by the Federal Communications Commission (FCC) to set the standards for exposure limits of radiation from cell phones,"<sup>5</sup> which cell phone manufacturers must follow. Second, the public relies on conclusions published on FDA's website. Third, scientists and researchers use this information to assess methodologies and to inform their own research questions.

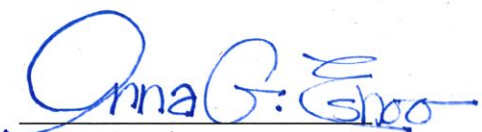
Director Jeffrey Shuren, who leads the Center for Devices and Radiological Health that is charged with overseeing radiation-emitting electronic products, has stated that FDA has "relied on decades of research and hundreds of studies to have the most complete evaluation of radiofrequency energy exposure," leading to the judgement that "the current safety limits for cell phone radiofrequency energy exposure remain acceptable for protecting the public health."<sup>6</sup> In fact, FDA's website notes that "[t]he weight of scientific evidence has not linked cell phones with any health problems."<sup>7</sup>

In addition to FDA, other agencies and scientists have reached similar conclusions. The FCC finds that, “currently no scientific evidence establishes a causal link between wireless device use and cancer or other illnesses.”<sup>8</sup> The Centers for Disease Control and Prevention finds that, “[a]t this time we do not have the science to link health problems to cell phone use.”<sup>9</sup> A study of over 300,000 Danish mobile phone users found that for mobile phone users, “there were no increased risks of tumours of the central nervous system, providing little evidence for a causal association.”<sup>10</sup>

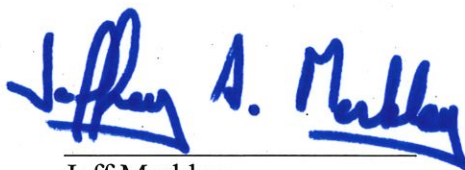
While we respect the expertise, rigor, and independence that lead to the FDA’s conclusions on the safety of cell phone use, we request that the agency make available a summary of the research and methodologies used to reach its conclusions as many in the public and scientific community raise questions about the health impacts of cell phones. Hundreds of constituents have contacted our offices and those of our colleagues to raise concerns about the impact of cell phone RF emissions on human health, especially as our country transitions to 5G. Recent National Toxicology Program studies,<sup>11</sup> a Government Accountability Office report,<sup>12</sup> many peer-reviewed studies,<sup>13</sup> and credible literature reviews<sup>14</sup> have also raised questions about the impact of RF exposure on human health and the state of scientific research on this topic.

Given that 95 percent of Americans own a cell phone,<sup>15</sup> having a better understanding of FDA’s analysis on this issue and how the agency reached the conclusion that current safety limits for cell phone RF energy exposure protect public health is critical. To that end, we ask that the FDA share a summary of the research that the FDA has reviewed related to RF exposure in cell phones, including whether such research covers the RF ranges that may be used in 5G<sup>16</sup> and the criteria used to include or exclude studies in the FDA’s review of research.

Sincerely,



Anna G. Eshoo  
Member of Congress



Jeff Merkley  
United States Senator

cc: The Honorable Chairman and Commissioners of the FCC  
The Honorable members of the Radiofrequency Interagency Work Group

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<sup>1</sup> The Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360ii(a) (1938).

<sup>2</sup> The Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360kk(a)(1) (1938).

<sup>3</sup> “What We Do,” U.S. Food and Drug Administration, March 28, 2018, <https://www.fda.gov/aboutfda/whatwedo/#mission>.

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<sup>4</sup> “Cell Phones,” U.S. Food and Drug Administration, August 29, 2018, <https://www.fda.gov/radiation-emittingproducts/radiationemittingproductsandprocedures/homebusinessandentertainment/cellphones/default.htm>.

<sup>5</sup> “Statement from Jeffrey Shuren, M.D., J.D., Director of the FDA’s Center for Devices and Radiological Health on the National Toxicology Program’s Report on Radiofrequency Energy Exposure” (U.S. Food and Drug Administration, November 1, 2018), <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm624809.htm>.

<sup>6</sup> *Id.*

<sup>7</sup> “Cell Phones - Health Issues,” U.S. Food & Drug Administration, December 4, 2017, <https://www.fda.gov/radiation-emittingproducts/radiationemittingproductsandprocedures/homebusinessandentertainment/cellphones/ucm116282.htm>.

<sup>8</sup> “Wireless Devices and Health Concerns,” Federal Communications Commission, August 6, 2018, <https://www.fcc.gov/consumers/guides/wireless-devices-and-health-concerns>.

<sup>9</sup> “Radiation: FAQs about Cell Phones and Your Health,” Centers for Disease Control and Prevention, June 9, 2014, [https://www.cdc.gov/nceh/radiation/cell\\_phones\\_faqs.html](https://www.cdc.gov/nceh/radiation/cell_phones_faqs.html).

<sup>10</sup> Patrizia Frei et al., “Use of Mobile Phones and Risk of Brain Tumours: Update of Danish Cohort Study,” *BMJ* 343 (October 19, 2011): d6387, <https://doi.org/10.1136/bmj.d6387>.

<sup>11</sup> “Cell Phone Radio Frequency Radiation” (National Toxicology Program, November 2018), <https://ntp.niehs.nih.gov/go/cellphone>.

<sup>12</sup> “Exposure and Testing Requirements for Mobile Phones Should Be Reassessed” (U.S. Government Accountability Office, July 2012), <https://www.gao.gov/assets/600/592901.pdf>.

<sup>13</sup> *See, e.g.*, Lennart Hardell and Michael Carlberg, “Mobile Phone and Cordless Phone Use and the Risk for Glioma – Analysis of Pooled Case-Control Studies in Sweden, 1997–2003 and 2007–2009,” *Pathophysiology* 22, no. 1 (March 1, 2015): 1–13, <https://doi.org/10.1016/j.pathophys.2014.10.001>; De-Kun Li et al., “Exposure to Magnetic Field Non-Ionizing Radiation and the Risk of Miscarriage: A Prospective Cohort Study,” *Scientific Reports* 7, no. 1 (December 13, 2017): 17541, <https://doi.org/10.1038/s41598-017-16623-8>.

<sup>14</sup> *See, e.g.*, Igor Yakymenko et al., “Oxidative Mechanisms of Biological Activity of Low-Intensity Radiofrequency Radiation,” *Electromagnetic Biology and Medicine* 35, no. 2 (April 2, 2016): 186–202, <https://doi.org/10.3109/15368378.2015.1043557>; Dominique Belpomme et al., “Thermal and Non-Thermal Health Effects of Low Intensity Non-Ionizing Radiation: An International Perspective,” *Environmental Pollution* 242 (November 1, 2018): 643–58, <https://doi.org/10.1016/j.envpol.2018.07.019>.

<sup>15</sup> “Mobile Fact Sheet” (Pew Research Center, February 5, 2018), <https://www.pewinternet.org/fact-sheet/mobile/>.

<sup>16</sup> As defined by 3rd Generation Partnership Project’s New Radio Release 15