



Presentation to the City
Administrators and Citizens
of
White Plains, NY

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by:

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Conflict-of- Interest Statement

- My position at the time I joined the New Hampshire State Commission was Professor & Chair of the Dept. of ECE at UNH
- Since leaving the university, I am working as a founder in a high-tech startup
- My bias was and is generally in favor of technological developments
 - I also served on the InterOperability Laboratory Advisory Board, which is an international evaluator of wireless technologies
 - Was active in Project 54, addressing the communications needs of police and first responders
 - I am serving as Chair of the Virtual Learning Academy Charter School Board of Trustees and have served on other educational boards
- I served on the Commission without any compensation, including travel expenses
- Because of my service on the Commission, I am asked to present to various groups, including your group, none of which involve compensation
- I present to you today as a fellow citizen, with no realized or expected financial rewards

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NH Commission on the Health and Environmental Impacts of 5G and Wireless Technology

- The Commission was convened through [bipartisan legislation](#) that was passed by both houses of the legislature and signed by the Governor
 - This is the first legislation passed in the United States calling for the formation of a state commission to explore the health effects of microwave radiation
- The 13 Commission members had backgrounds that included medicine, physics, toxicology, electromagnetics, epidemiology, biostatistics, occupational health, public health policy, business, and law

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Process and Findings of the Commission (Fall 2019 to Fall 2020)

- Vetting and reviewing peer-reviewed publications relating to microwave radiation
 - We identified hundreds of top-tier publications that showed harm from low-level microwave radiation exposure.
 - [As of 2020](#), the vast majority of peer-reviewed publications showed harm from exposure.
 - The primary mechanism by which exposure causes harm are oxidative changes, which can lead to an increase in free radicals (which can lead to chronic inflammation and a host of adverse outcomes including **neuropsychiatric effects, cancer, Alzheimer's disease, diabetes, lowered immune response and premature aging**)
- Bringing in recognized experts in fields related to microwave radiation and health
 - All but one of the experts were unpaid, except for the expert hired by the Telecom Industry; that expert was the only one who said that there were no risks associated with radiation from wireless devices

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Process and Findings of the Commission (continued)

- Assessing how the current FCC exposure guidelines were set
 - They were set in the 1980 and were based on short-term (around an hour) behavioral studies of rats and monkeys.
 - The assumption was that if microwave radiation did not warm you up, it was harmless
- Communicating with regulatory agencies (FCC, FDA, EPA)
 - They were asked to meet with the commission, but none did
 - Our communications with them did not answer our questions
 - Such a lack of responsiveness is something one might expect from a [Captured Agency](#)
- Writing the [Final Report](#)
 - Included 15 recommendations, some of which we are trying to get made into law

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Legislative Actions in New Hampshire

- [House Bill 1644](#) introduced in January 2022
 - 500-meter (1,640') setback for all new cell towers
 - ([meta study](#) about people living near cell towers, and [Commission rationale](#) for choosing 500-meter setback)
 - Formation of registry to record microwave illnesses
- HB1644 sent to House Science, Technology & Energy Committee for recommendation in February
 - Registry component of bill removed
 - Sent bill to interim-study subcommittee
 - Subcommittee voted 5-1 in favor of future legislation regarding microwave radiation, which does not include the setback
- The full House Science, Technology & Energy Committee also voted in favor of moving forward with action (15-3)
 - Next step is to write legislation that will be meaningful and passable

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Concluding Remarks

- A formal state commission of unbiased experts, formed through bipartisan legislation, concluded that low-level microwave radiation is harmful to human health and the environment
- Technological developments should be pursued to lessen exposure levels while continuing to provide connectivity
 - Migration to fiber connections and wired connections is a good start
- Those in a position to do so are strongly encouraged to enact protections against microwave radiation, which includes delaying the rollout of 5G in its present form