

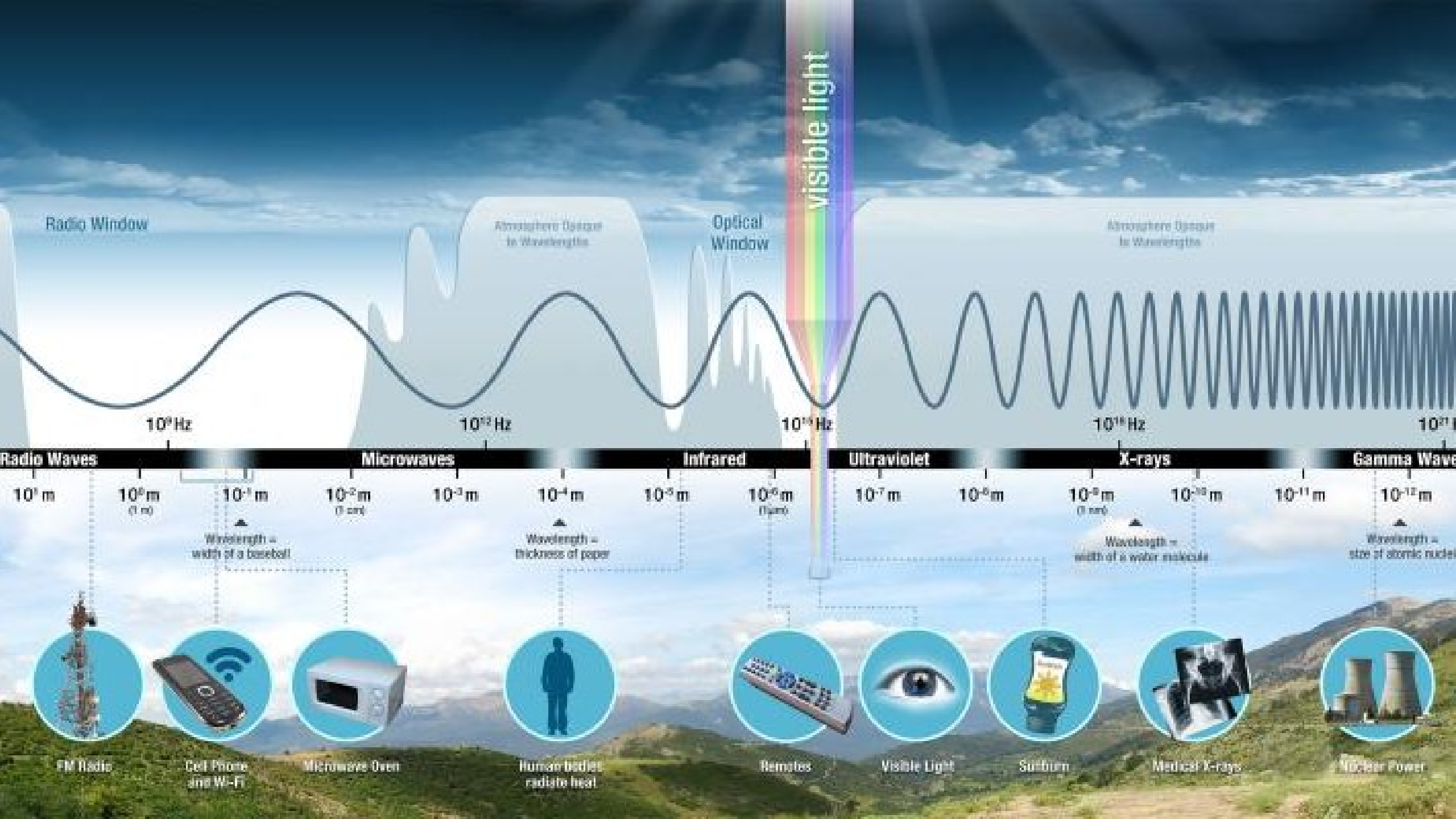
Who Am I?

- Grew up in the Garden State
- Worked as Big Tech salesman for 12 years
- Married a native of Pelham
- Fell in love with the local agriculture of the region



Brief History of Electromagnetic Fields

- Ptolemy 200AD
- Danish scientist – electromagnetism 1819
- Telegraph, Marconi 1844
- Radio 1890s
- Sonar – start of 20th century
- Microwaves 1946



Thermal v. Non-Thermal Effects

- Safety Standards based on heating of tissue (Schwann, 1947)
- Non-thermal, biological effects of non-ionizing radiation
- Oxidative Stress leads to opening of voltage-gated calcium channels (Prof. Emeritus Martin Pall, PhD.)
- Harvard: FCC as a captured agency – no safety testing since 1995

Harmful Effects of LEDs

- LEDs emit nonanalog 450nm pulse-modulated light that typically has excessive blue frequencies.
- When using LEDs, you might end up with increased cellular damage and decreased repair /regeneration - Alexander Wunsch, MD, PhD, Photobiologist Biophysicist
- Macular degeneration, cells in retina regenerate with infrared light and produce melatonin
- Mitochondria (engine) & ATP (energy molecule)
- Dopamine excitation, melatonin suppression & sleep
- Resources: <https://www.ncbi.nlm.nih.gov/pubmed/21164152> ; <https://articles.mercola.com/sites/articles/archive/2019/01/30/led-lights-health-risks.aspx>

Health Conditions Exacerbated by 5G Tech

- Heart Arrhythmia – 2015 EMF Appeal by 240 scientists
- Cancer-linked to EMF at non-thermal levels: NTP Study-10 years to complete, \$30 million
- Neurodegeneration, Depression, Insomnia, from Microwave frequency – J Chemical Neuroanatomy 2015, Pall
- Suicide 2nd leading cause of death among 15 to 29 yr- olds - WHO 2016, CDC

The Bees

- Exposure to cell phone radiations produces biochemical changes in worker honey bees — published Toxicology International, N. Kumar, S. Sangwan, P. Badotra 2011
- Radiation from the cell phone influences honey bees' behavior and physiology - reduced motor activity of the worker bees on the comb initially, followed by en masse migration and movement toward “talk mode” cell phone.
- Transient exposure to EMF reduces a bee's ability to learn, reduces their memory retention, affects flight and foraging behavior all of which could potentially reduce their ability to pollinate. — Nature, S. Shepherd 2018

INTERNATIONAL APPEAL

Stop 5G on Earth and in Space

Sign the Appeal: www.5gSpaceAppeal.org



The deployment of 5G constitutes an **experiment on humanity and the environment that is defined as a crime under international law.**

More than 10,000 peer-reviewed scientific studies demonstrate harm to human health from RF radiation.^{[10] [11]}

Effects include:

- [Alteration of heart rhythm](#)^[12]
- [Altered gene expression](#)^[13]
 - [Altered metabolism](#)^[14]
- [Altered stem cell development](#)^[15]
 - [Cancers](#)^[16]
 - [Cardiovascular disease](#)^[17]
 - [Cognitive impairment](#)^[18]
 - [DNA damage](#)^[19]
- [Impacts on general well-being](#)^[20]
 - [Increased free radicals](#)^[21]
 - [Learning and memory deficits](#)^[22]
- [Impaired sperm function and quality](#)^[23]
 - [Miscarriage](#)^[24]
 - [Neurological damage](#)^[25]
 - [Obesity and diabetes](#)^[26]
 - [Oxidative stress](#)^[27]
- Effects in children include [autism](#),^[28] [\(ADHD\)](#)^{[29][30]} and [asthma](#).^[31]

Economic Impact- 5G Could Hurt Property Owners

- The National Association of REALTORS® are urging the FCC to heed caution and ensure that its proposal to expand high-speed 5G networks nationwide doesn't violate property owners' rights.
- 5G small cell or other wireless infrastructure on a balcony or within a leased space to boost coverage and also transmit a signal to other customers of the telecom provider.
- The rule could allow a telecom carrier who already leases rooftop space from the property owner to be able to attach a 5G small cell or other wireless infrastructure on that existing equipment without having to change their agreement with the property owner.
- <https://magazine.realtor/daily-news/2019/06/24/nar-fcc-s-5g-plan-could-hurt-property-owners>
- ["Impact of Communication Towers and Equipment on Nearby Property Values"](#) prepared by Burgoyne Appraisal Company, March 7, 2017

Additional Concerns

- Wireless vs Wired Performance & “Innovation”
- Reconsider Viability of Town, Health & Insurance Liability
- Climate Forecasting - <https://www.nature.com/articles/d41586-019-03609-x>
- Night sky & Climate Impacts of Wireless Device Production

Sustainability

