

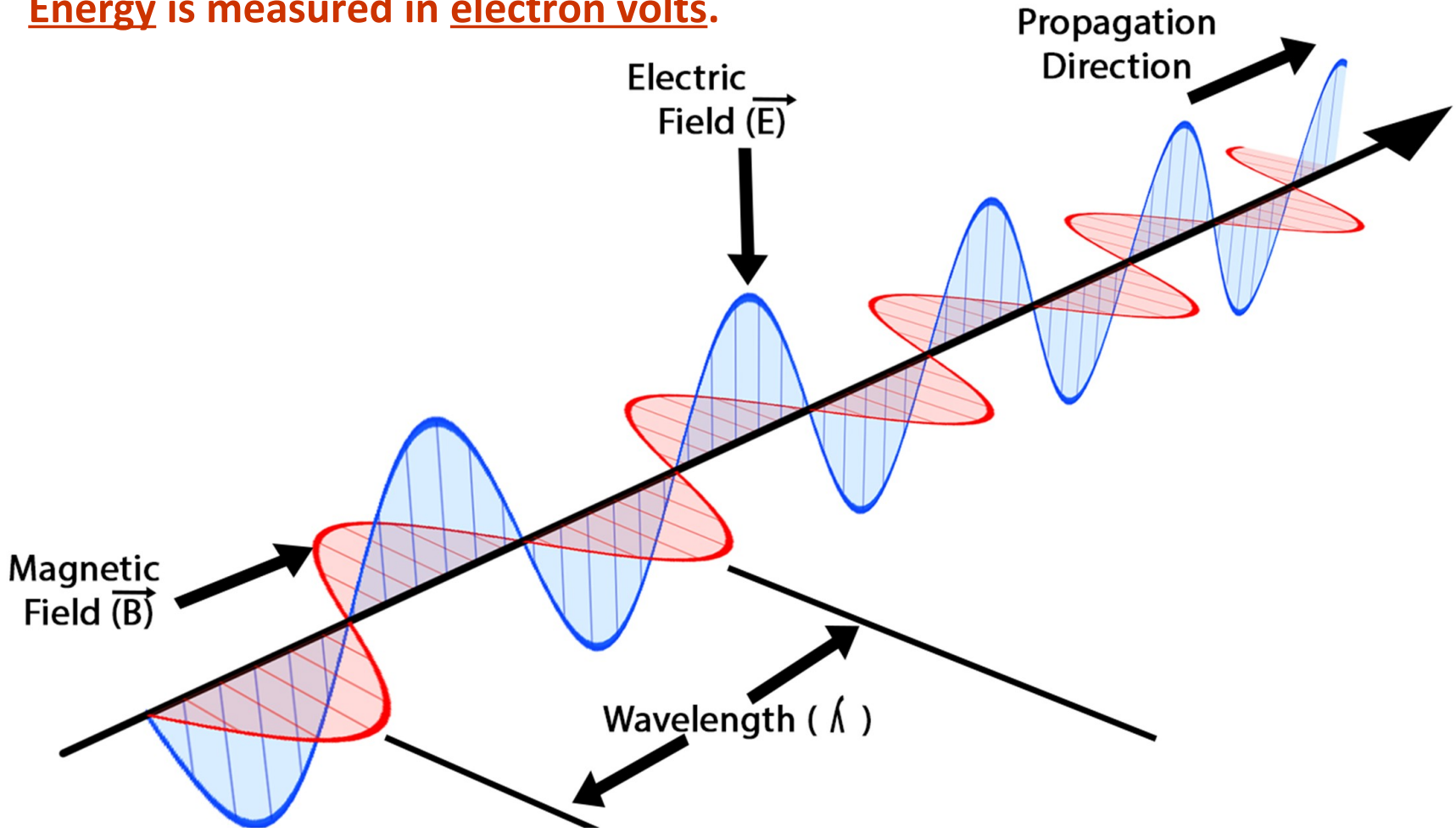
# Immune Impacts of Unnatural EMF

**Ray Kearney**

Email: [ray.kearney@outlook.com](mailto:ray.kearney@outlook.com)

# Electromagnetic Wave

Frequency is measured in cycles per second, or Hertz. Wavelength is measured in metres. Energy is measured in electron volts.



# Non-ionizing radiation does not remove electrons from atoms or molecules

ENERGY

NON-IONIZING

IONIZING

SAFE and BENEFICIAL  
IN APPROPRIATE  
DOSAGE \*

ALMOST SAFE,  
LOW DANGER

DANGER

SAFE and BENEFICIAL  
IN APPROPRIATE  
DOSAGE \*

EXTREMELY HARMFUL



ELF

VLF

LF

RADIOFREQUENCIES

MICROWAVES

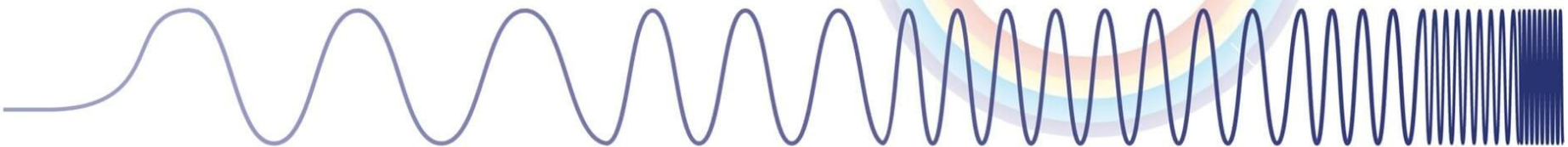
INFRA-RED

VISIBLE

ULTRAVIOLET

X-RAY

GAMMA RAYS



FREQUENCY

50 Hz

1 MHz

500 MHz

1 GHz

10 GHz

30 GHz

600 THz

3 PHz

300 PHz

30 EHz

WAVELENGTH

6000 km

300 m

60 cm

30 cm

3 cm

10 mm

500 nm

100 nm

1 nm

10 pm

# 5G Spectrum – What Frequencies Does 5G Use?

5G has 3 layers



**5G supposedly allows more devices to use data faster and more efficiently.**

**Carriers must use a mix of 5G frequencies to cater to different data demands.**

*Image Source: [T-Mobile](#)*

**5G publicity: 100+ News Stories (Updated 17/8/2023)**

<https://www.saferemr.com/>

# **ICNIRP - INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION**

**5G limits are set for exposure to ensure energy (heat)**

**from a single source of Radio Frequency Radiation**

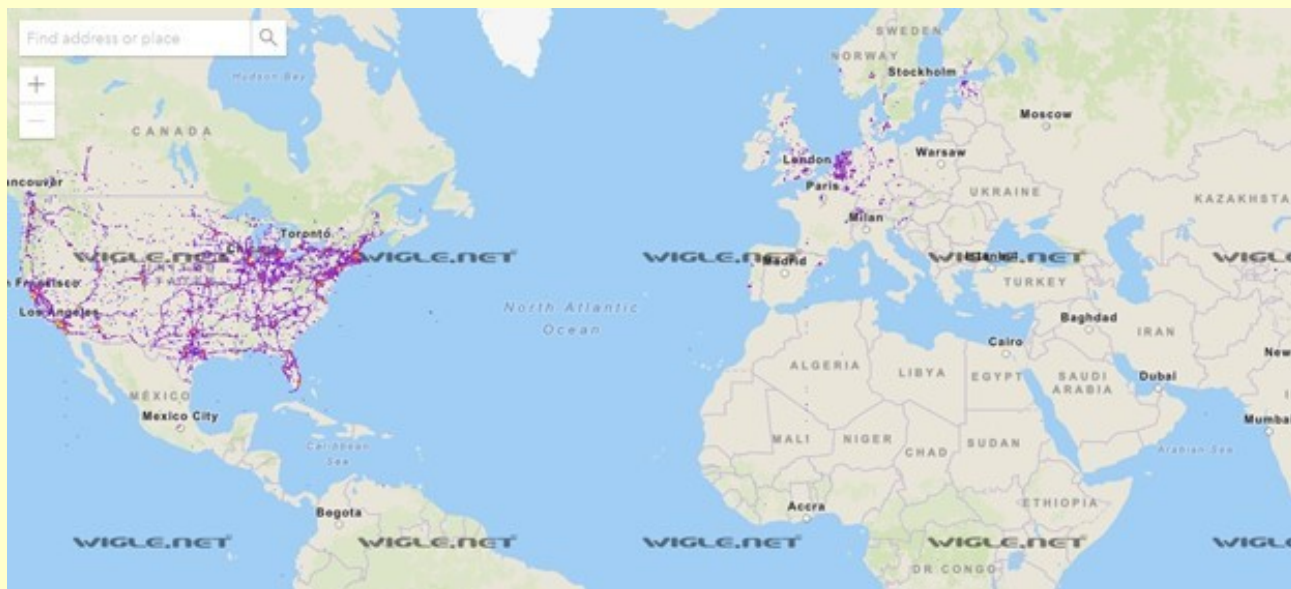
**(RFR), does not cause an increase of 2°C or 5°C  
(heating)**

**in or on the body, for short-term exposures**

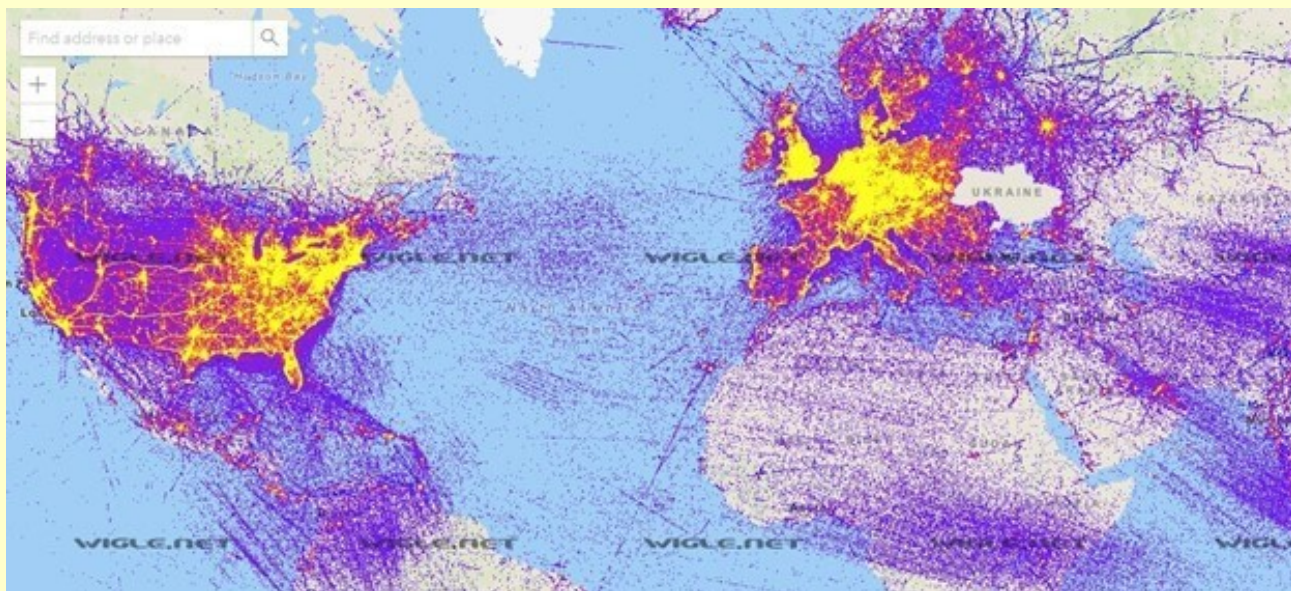
**(6 or 30 minutes).**

# Increase in EMR pollution 2004 – 2022, with increase in 5G

2004



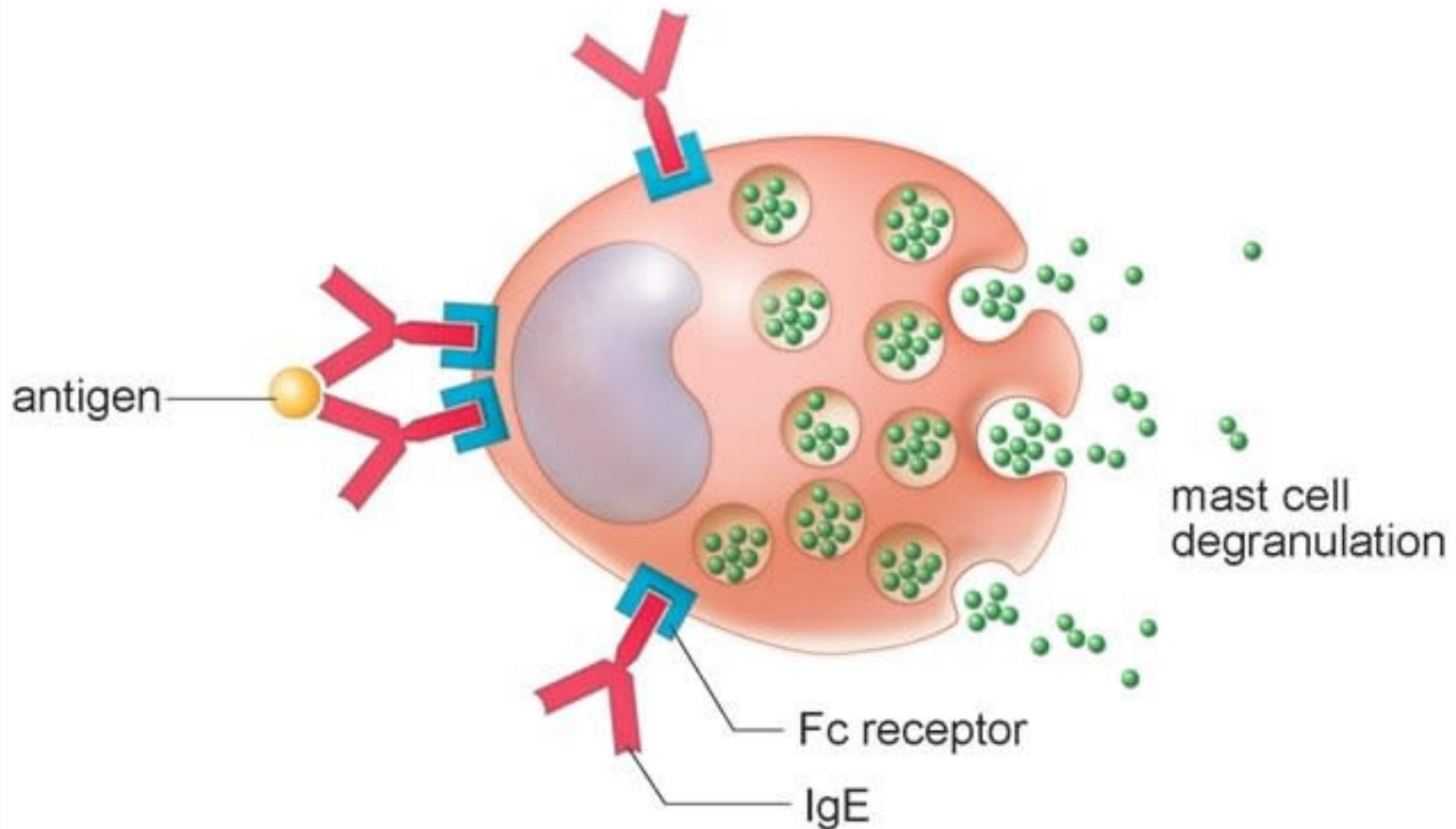
2022

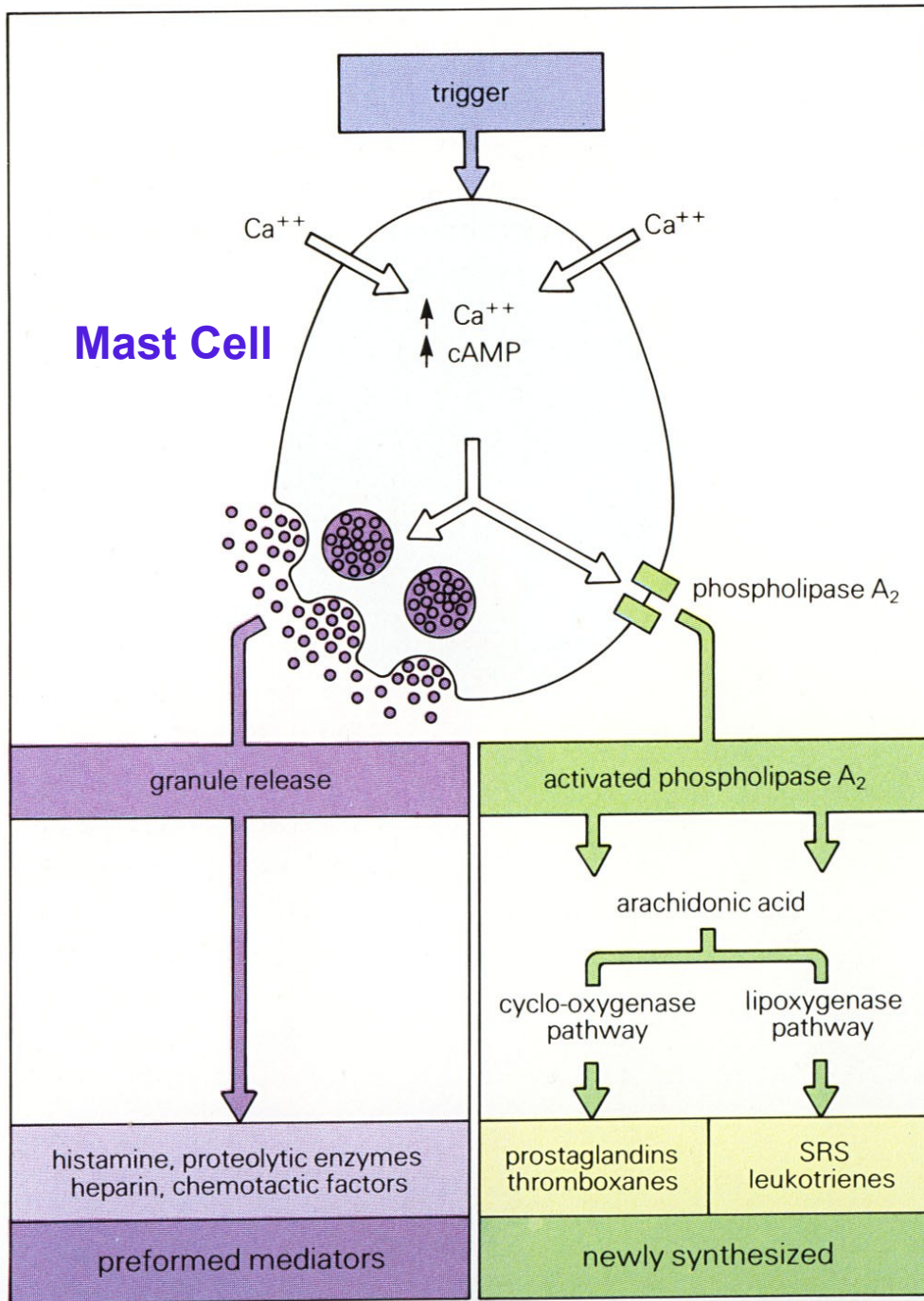


5G roll-out  
in USA 2019

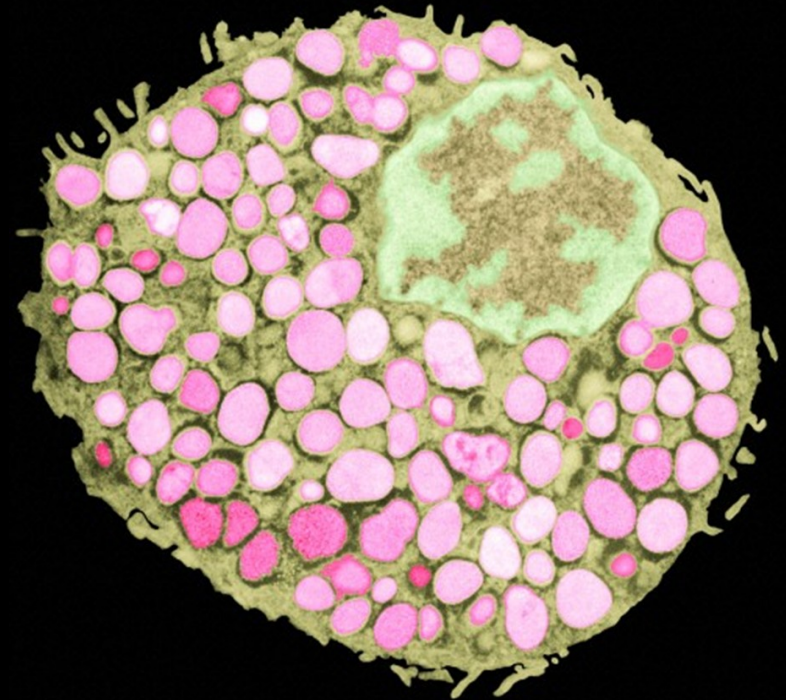
# Type I or Immediate Hypersensitivity Reaction

## Mast Cell: A Multi-Functional Master Cell





**Mast Cell**



**A Multi-Functional Master Cell**

Wellcome Images

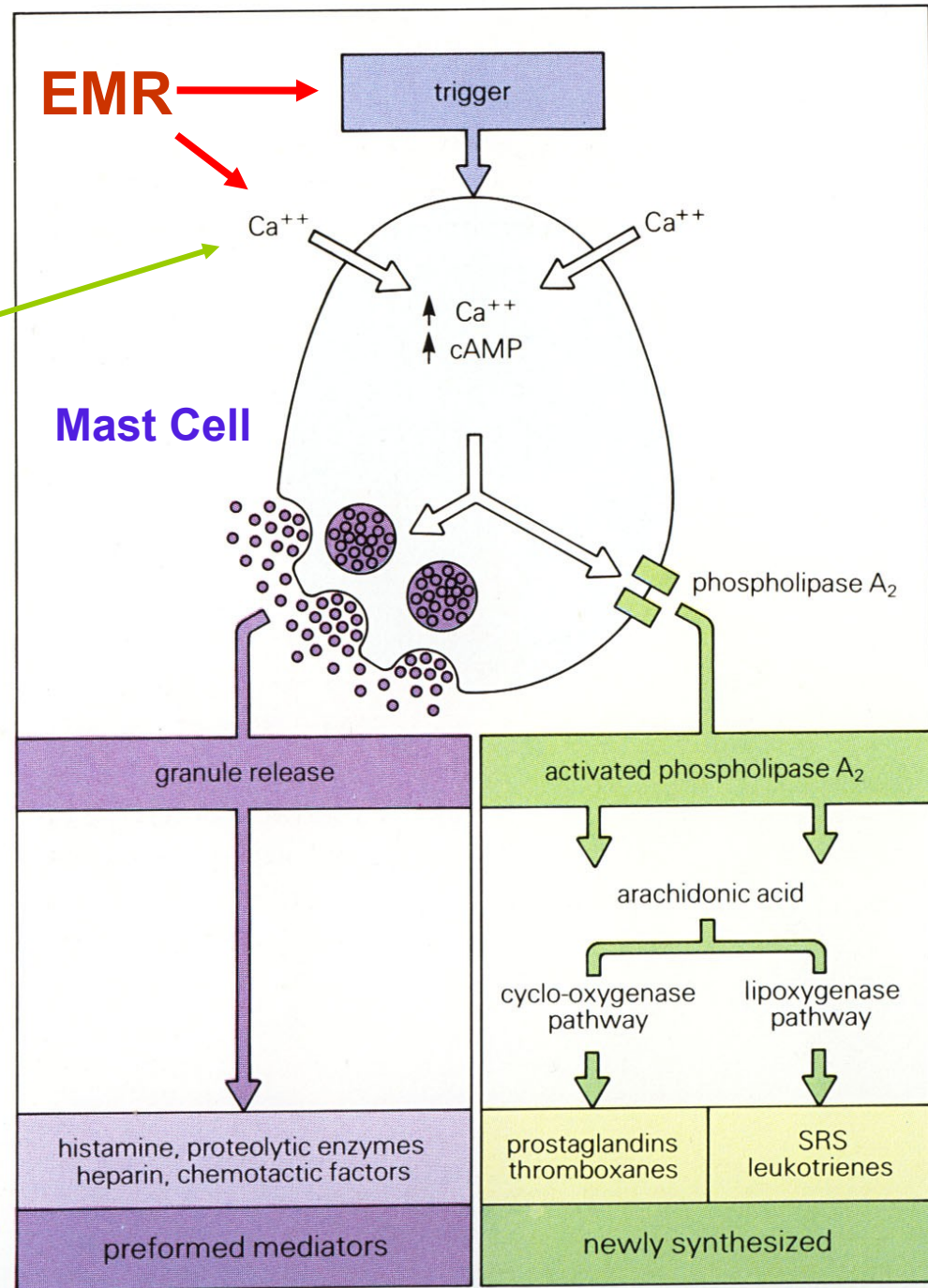
**I. Roitt, J. Brostoff  
& D. Male  
*Immunology***



**Non-thermal EMR exposures act via voltage-gated calcium channel (VGCC) activation.**

## Mast Cell Activation Syndrome

M. L. Pall  
*Rev Environ Health*  
 2015; 30(2): 99–116



**EMR** → **Trigger** → **Mast Cells** ← **Trigger - IgE - Allergen**

**Immediate release**

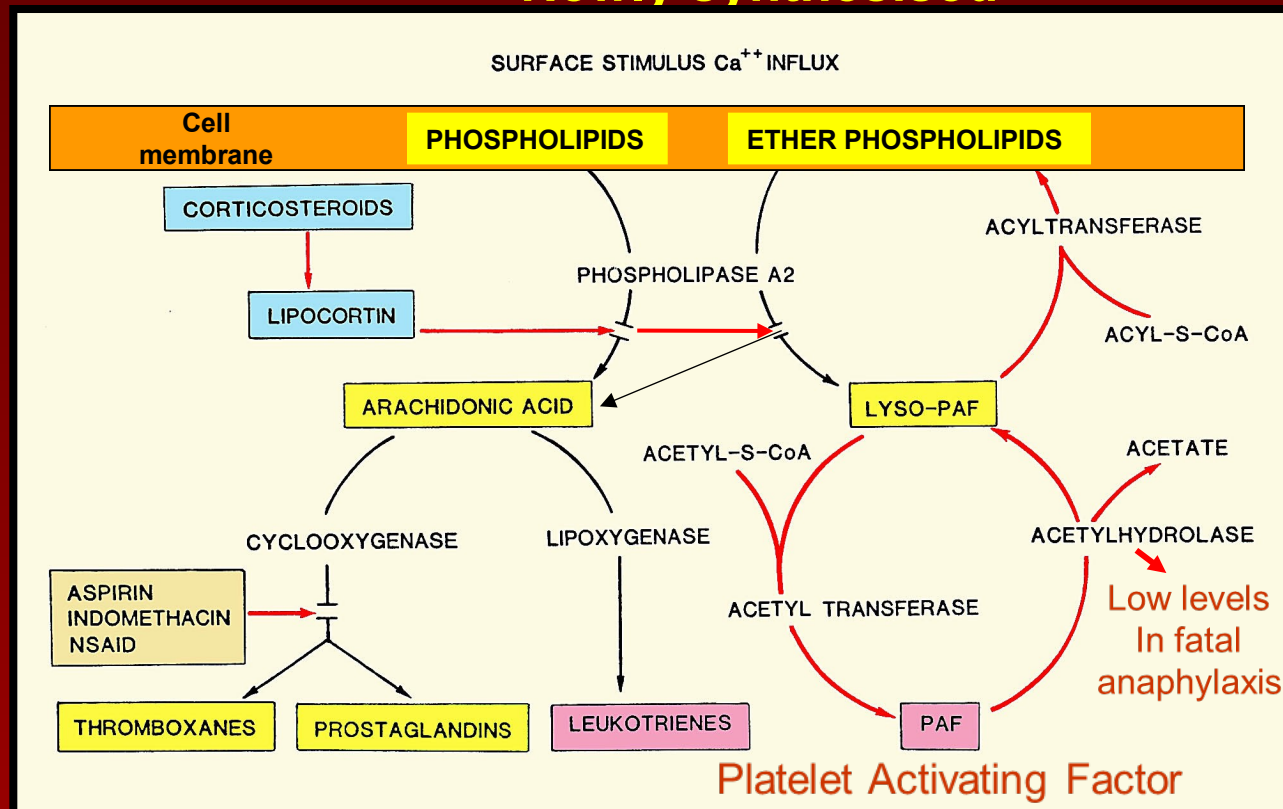
**Late phase**

**Preformed mediators**

**Newly synthesised**

e.g.,

- Histamine
- Proteolytic enzymes
- Heparin
- Chemotactic factors

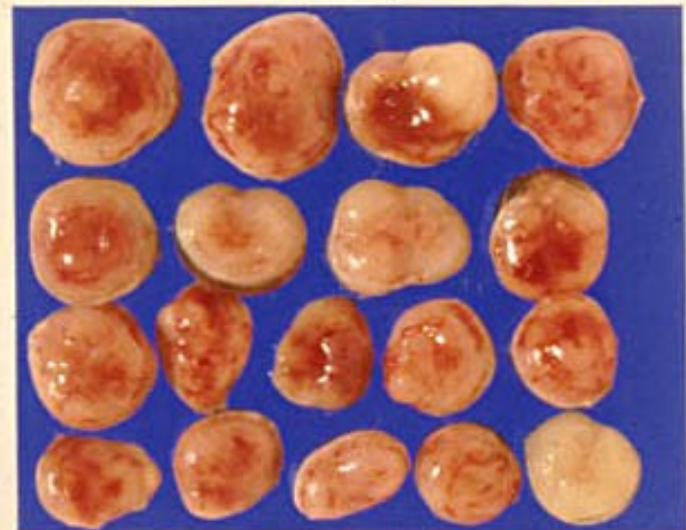


Average Tumour Size (Day 18)  
CBA T/6 ♀ Mice, Age: 20 Weeks

Control

0.2  $\mu$ g LPS

500 H-1  
Tumour  
Cells




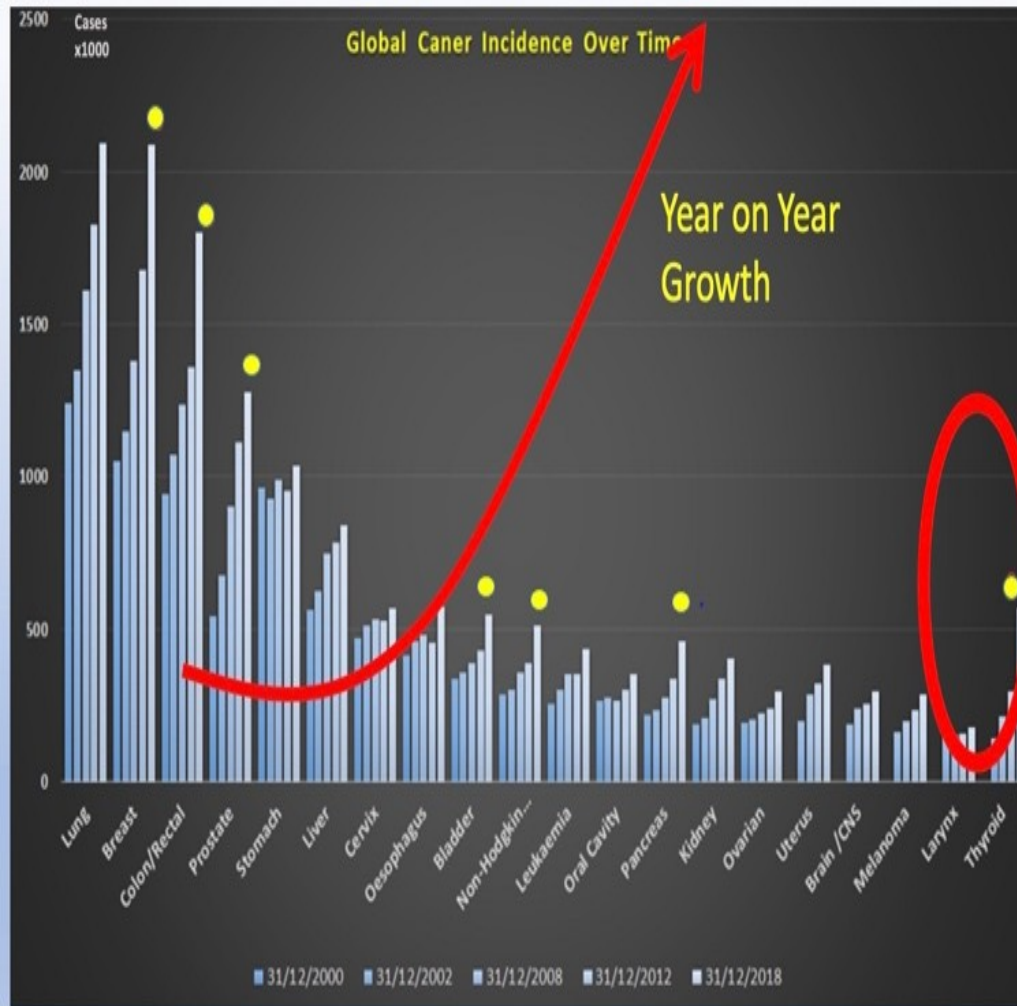
Incidence

6/18

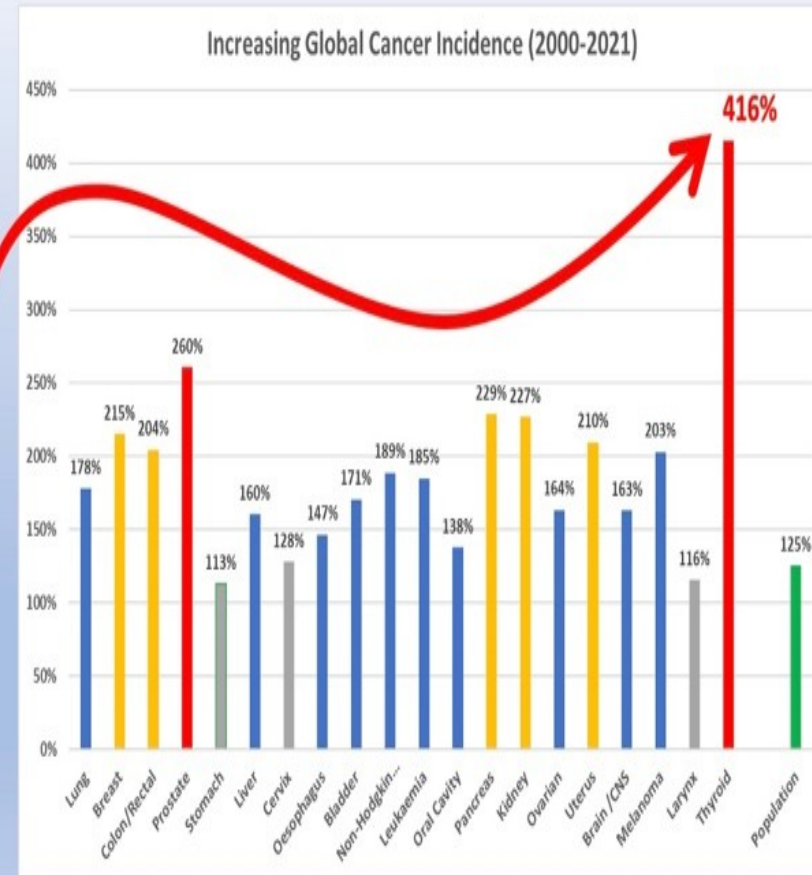
18/18

cm

- A number of cancers  have seen an exponential increase, particularly in the last 10+ years



Data Source: IARC World Cancer Reports (2003, 2008, 2014, 2020)



The graphic above was created by Steven Weller, PhD student, in his presentation to the Griffith University Faculty of Medicine and Dentistry.

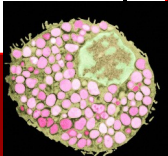
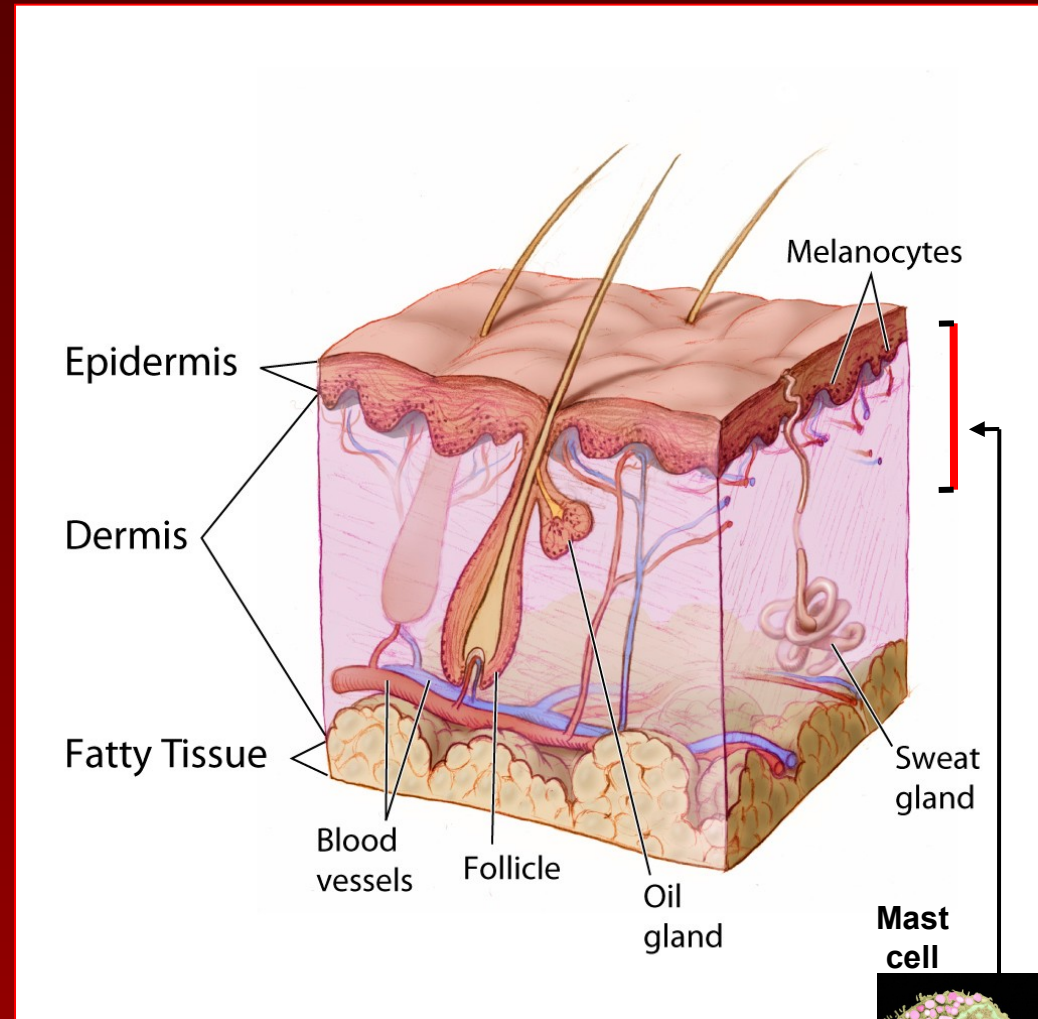
# **Symptoms of Electromagnetic Hypersensitivity Syndrome “EHS” (Mast Cell Activation Syndrome “MCAS”)**

## **Include:**

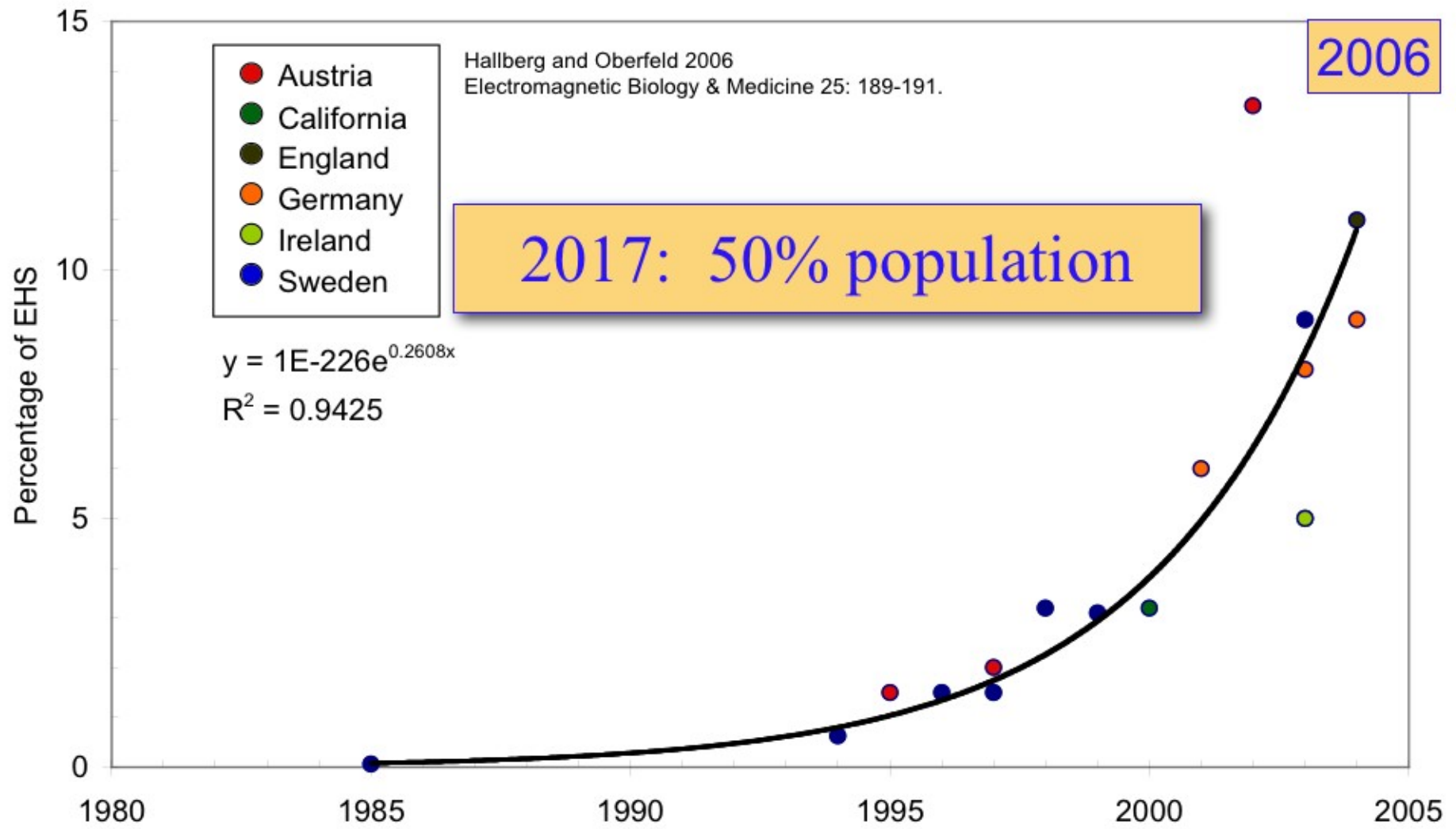
- **severe headaches,**
- **fatigue, stress, sleep disturbances,**
- **skin symptoms (e.g., prickling, burning sensations and rashes),**
- **muscle aches,**
- **nausea,**
- **nose bleeds,**
- **dizziness and heart palpitations.**
- **rapid heartbeat (tachycardia) and irregular heartbeat (arrhythmia)**

# Electromagnetic Hypersensitivity Syndrome (“EHS”)

- A profound increase in mast cells
- Empty zone between dermo-epidermal junction and mid-to-upper dermis is infiltrated with a high density of mast cells



# Estimated prevalence of EHS in various countries



<https://pubmed.ncbi.nlm.nih.gov/27454111/>

# Conflicting conclusions

**“There are no conclusive direct hazards to human tissue as a result of electromagnetic radiation.”**

<http://www.who.int/mediacentre/factsheets/fs193/en/>

ICNIRP advises

**Versus**

**“Above is completely and blatantly untrue!”**  
**(Bio-Initiative Report)**

<http://www.argotheme.com/organecyberpresse/IMG/pdf/BioInitiativeReport2012.pdf>

**Reflects a dangerous corruption of science  
by the *WHO et al.***

<https://www.saferemr.com/>

<https://www.degruyter.com/document/doi/10.1515/reveh-2023-0046/html>



# 5G mobile networks and health—a state-of-the-science review of the research into low-level RF fields above 6 GHz

• [Ken Karipidis](#), **(ARPANSA)**, [Rohan Mate](#), [David Urban](#), [Rick Tinker](#) & [Andrew Wood](#)  
[Journal of Exposure Science & Environmental Epidemiology](#) **volume 31**, pages 585–605 **(2021)**

**Extract:** “*This review showed no confirmed evidence that low-level RF fields above 6 GHz such as those used by the 5 G network are hazardous to human health.....*”

**Future epidemiological studies should continue** to monitor long-term health effects in the population related to wireless telecommunications.”

<https://www.nature.com/articles/s41370-021-00297-6>

**ARPANSA:** Aust. Radiation Protection and Nuclear Safety Agency

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**Note:** **Victor Leach** (ORSAA): <https://www.orsaa.org/>

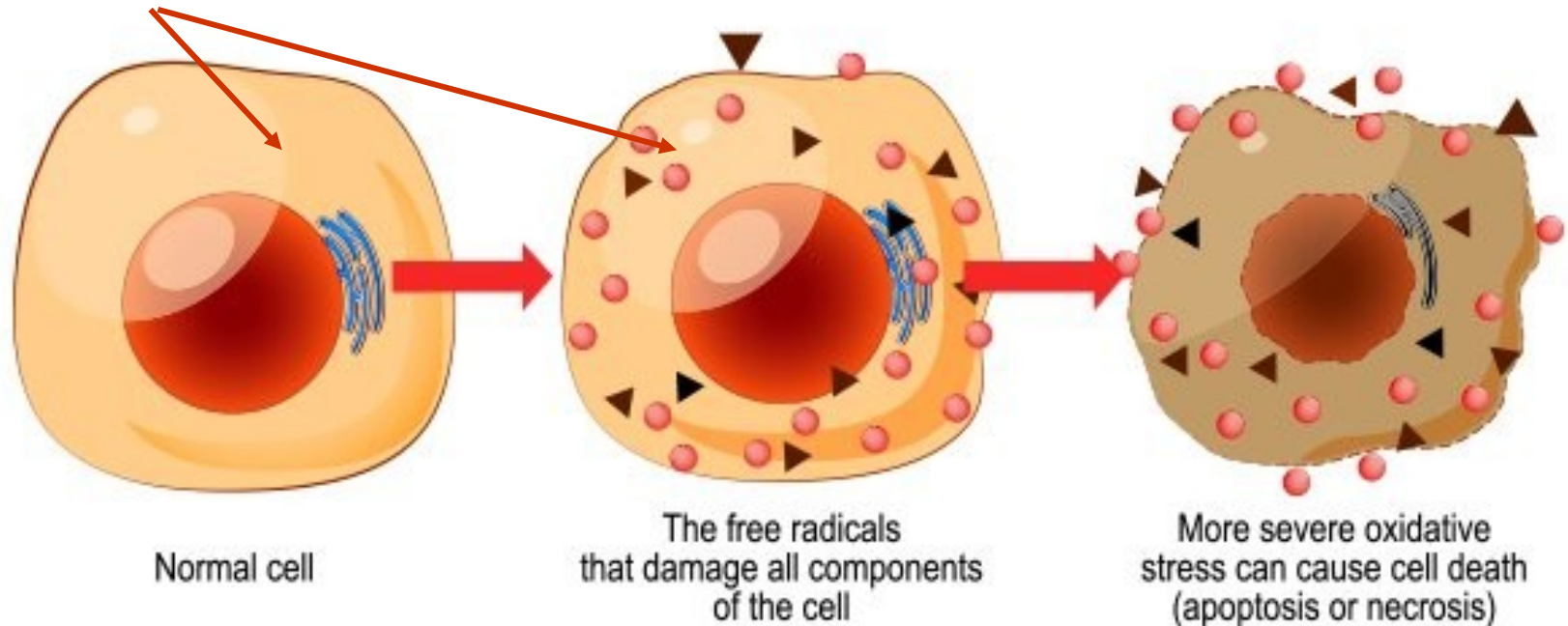
**Video:** <https://www.youtube.com/watch?v=P6jrULLhnCo>

***“ARPANSA ignored the positive results in its OWN data bank.”***

**ORSAA: Oceania Radiofrequency Scientific Advisory Association Inc.**

# Oxidative stress

**EMR** <https://www.saferemr.com/> 282 of 311 Studies



**A free radical is an oxygen-containing molecule that consists of unpaired electrons, e.g., superoxide radicals, hydroxyl radicals, and nitric oxide radicals. These free radicals are highly reactive with the other molecules.**

<https://www.h-h-c.com/what-is-oxidative-stress-and-how-to-analyze-it/>

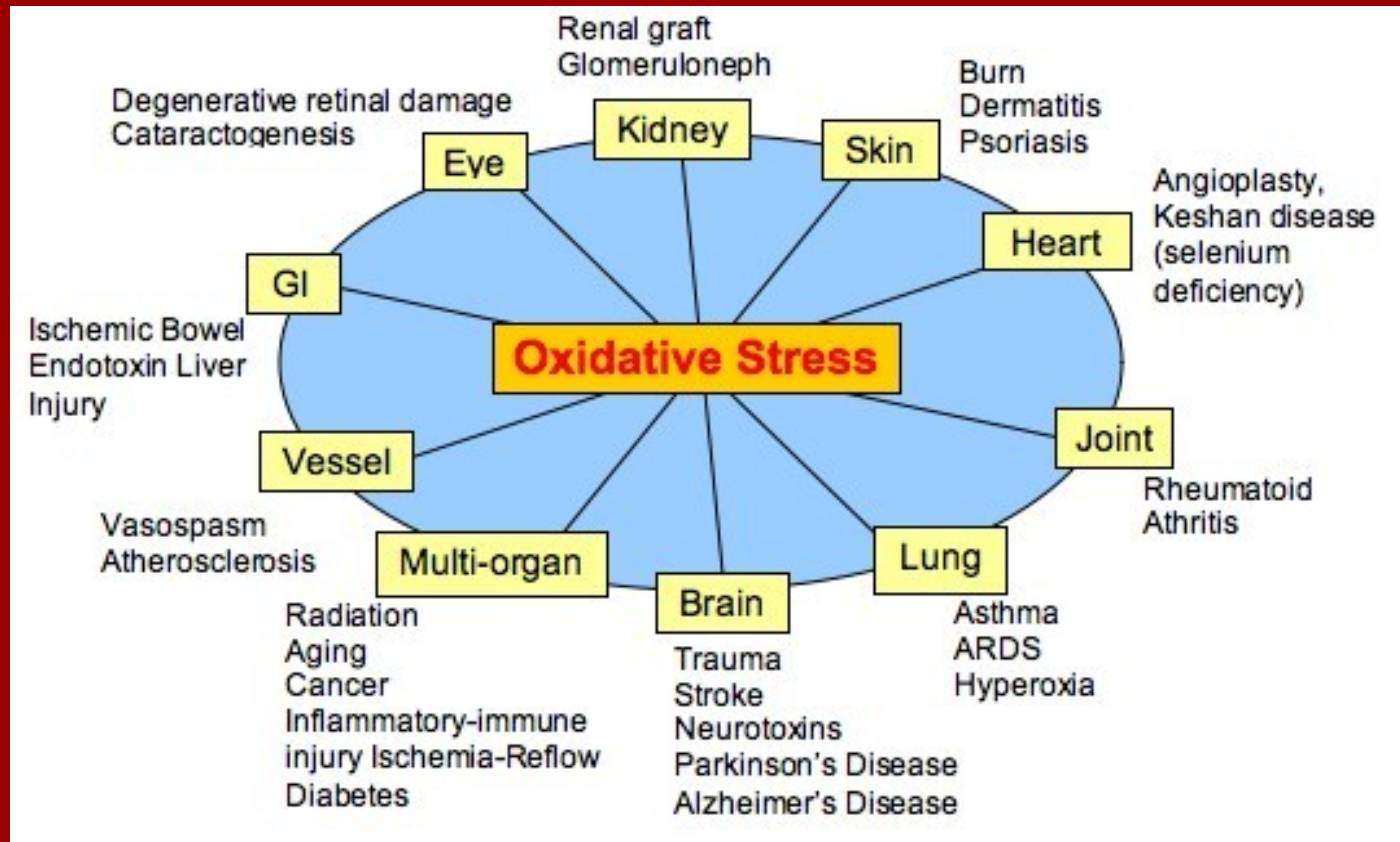
**low-intensity  
electromagnetic  
frequency (EMF)**

**282/311 studies  
(91%)**

**- EMFs induce  
oxidative stress**

<https://www.saferemr.com/>

**Exposure to weak  
EMF can result in  
*decreased* melatonin  
production.**



—————> **Anti-oxidant**

**11/13 studies**

[http://www.smartvoter.org/2014/06/03/ca/state/vote/mottus\\_k/paper3.html](http://www.smartvoter.org/2014/06/03/ca/state/vote/mottus_k/paper3.html)

**>100 studies**

<https://www.semanticscholar.org/paper/Pineal-melatonin-level-disruption-in-humans-due-to-Halgamuge/deb3239b41b67cbfdcd5052f427ff2fea10c22a>

*Electromagnetic Biology and Medicine*, Ahead of Print, July7, 2015

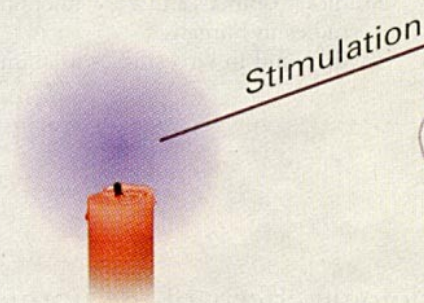
<http://informahealthcare.com/doi/abs/10.3109/15368378.2015.1043557>

# Melatonin

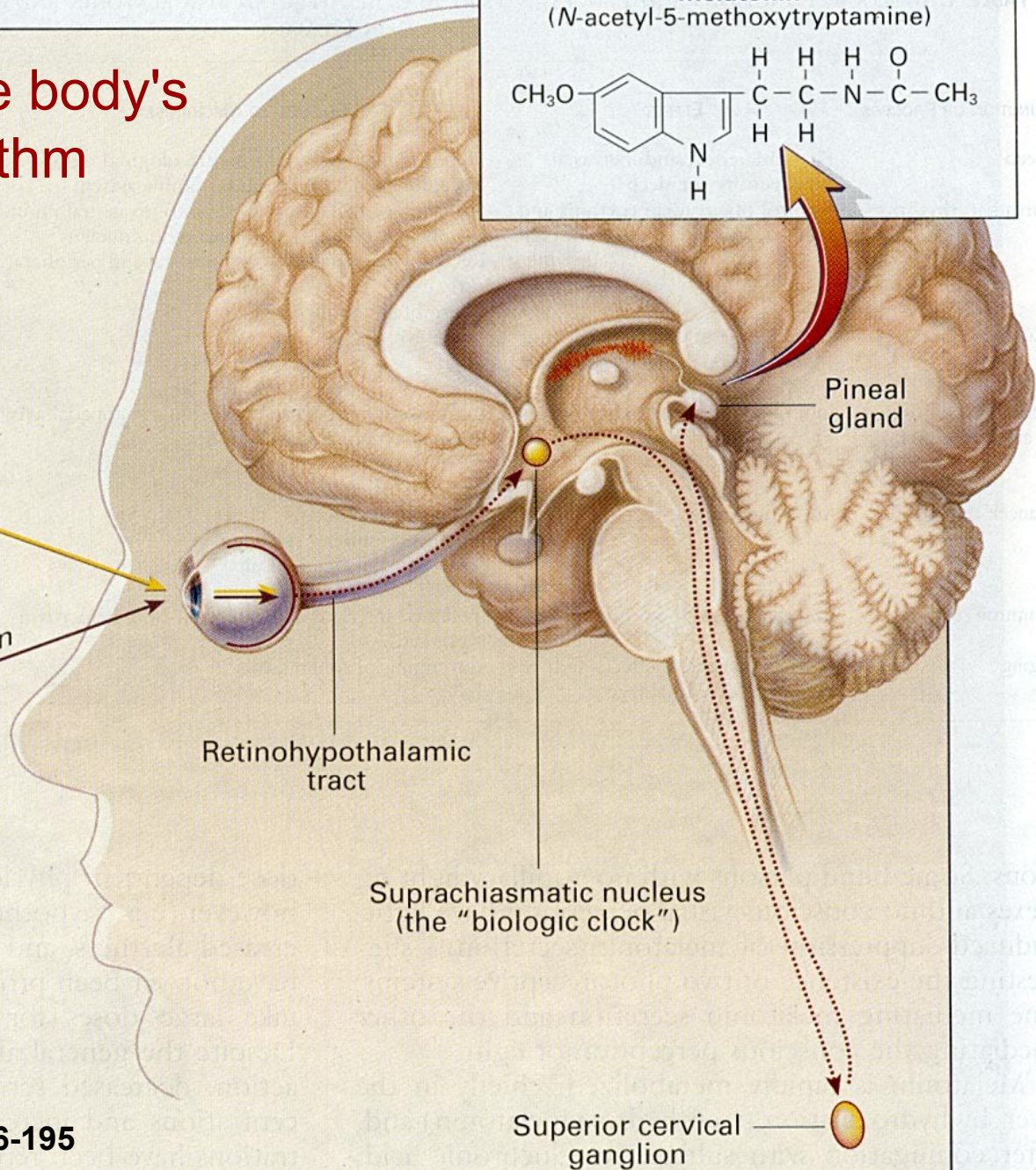
- maintains the body's circadian rhythm



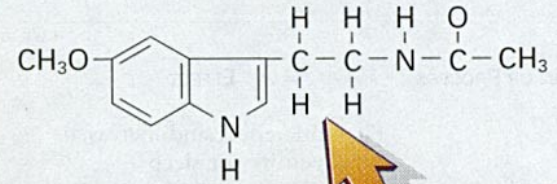
Inhibition



Stimulation



**Melatonin**  
(N-acetyl-5-methoxytryptamine)



Pineal gland

Retinohypothalamic tract

Suprachiasmatic nucleus (the "biologic clock")

Superior cervical ganglion

# MELATONIN

## Biological properties e.g.,

- capacity to scavenge free radicals, especially the hydroxyl radical (e.g., ↓ neuron & heart damage)
- prevents DNA damage by free radicals
- protects against cancer initiation; anti-cancer
- binds calmodulin and blocks activation of oestrogen receptor-alpha
- down-regulates glucocorticoid receptors

# MELATONIN

## Activates:

- bone marrow cells
- natural killer (NK) cells
- antibody response e.g., anti-bacterial/viral (Th1) responses and suppresses allergic (Th2) IgE responses.
- antibody-dependent cell cytotoxicity
- T-cell proliferation (& increases size of thymus gland)
- monocytes, neutrophils and cytokine release (e.g., IL-1, IL-6 and TNF )

# Risk for Melatonin Deficiency

- Most medications prescribed to lower blood pressure may reduce serum melatonin levels
  - e.g., beta-blockers,  
calcium channel blockers,  
calcium antagonists
- An estimated 40% of individuals who take beta-blockers have sleep disorders
- Tobacco smoking reduces melatonin levels by >50%
- Melatonin should be combined with statins to reduce the free-radical-mediated side effects of these cholesterol-lowering drugs.



# The Dangers of Environmental Illnesses caused by Electromagnetic Fields

- **Electro-Hypersensitivity (EHS) is a documented debilitating disease.**
- **There is an enormous body of evidence to support EMFs having health effects (> 2500 papers)**

<https://www.saferemr.com/>

<http://www.powerwatch.org.uk/science/studies.asp>

<http://www.powerwatch.org.uk/health/sensitivity.asp>

[http://www.cellphonetaskforce.org/?page\\_id=128](http://www.cellphonetaskforce.org/?page_id=128)

**Appeal (4/8/23) by 68 experts to false claims of “no health impacts” - to reduce current ‘safety standards’ :**

[https://cdn.shopify.com/s/files/1/0266/5411/3837/files/ENGL\\_APPEAL.pdf?v=1692855554&utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=scientists\\_weigh\\_in\\_on\\_italy\\_s\\_radiation\\_standard&utm\\_term=2023-08-26](https://cdn.shopify.com/s/files/1/0266/5411/3837/files/ENGL_APPEAL.pdf?v=1692855554&utm_source=newsletter&utm_medium=email&utm_campaign=scientists_weigh_in_on_italy_s_radiation_standard&utm_term=2023-08-26)

# Risk Assessment

- If a substance is known to be harmful, it should not be necessary to demonstrate ‘**scientifically**’ that it is actually causing harm before doing something about it.
- Health/telecom bureaucrats state they are “*not sure yet*” how big the problem is and “*we have not identified the extent of the problem*” or “*we have yet to understand the underlying mechanism*”.
- Business as usual and widespread ‘cover-up’
- Wilful blindness to the truth!

M. Greenberg (*J. Occup. & Environ. Med.* 2005; Vol 47: 137-144)

# Medicine is replete with discarded beliefs



The Doctors  
behind the  
Doctor

• Medical possibilities... the amazing "miraculous"... and now the new serums... Think the men of research medicine for these... and for all the other valuable work they have placed in the doctor's "white coat bag."  
Biochemists and bacteriologists... pathologists and physiologists... whatever the field of research... they are few and far between... And, like all doctors, they are tirelessly devoted, their lives for the sake of human health and happiness.

According to a recent Nationwide survey:

**MORE DOCTORS SMOKE CAMELS**  
THAN ANY OTHER CIGARETTE

• What cigarette do you smoke, Doctor?... that was the question put to 113,597 doctors from the Atlantic to the Pacific, from the Gulf of Mexico to the Canadian border. Three independent research organizations did the asking... covered doctors in every branch of medicine.  
The brand named most was Camel!



YOUR "T-ZONE" WILL TELL YOU...

T for Taste...  
T for Throat...  
that's your proving ground for any cigarette. See if Camels don't suit your "T-Zone" to a "T."



**CAMELS** Costlier Tobaccos



He's one of the busiest men in town. While his door may say *Office Hours 2 to 6*, he's actually on call 24 hours a day.  
The doctor is a scientist, a diplomat, and a friendly sympathetic human being all in one, no matter how long and hard his schedule.

According to a recent Nationwide survey:

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DOCTORS in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?

The brand named most was Camel!  
The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now.



Your "T-Zone" Will Tell You...

T for Taste...  
T for Throat...  
that's your proving ground for any cigarette. See if Camels don't suit your "T-Zone" to a "T."



**CAMELS** Costlier Tobaccos



Lady  
with a Lamp  
(1946 Version)

• The pages of medical history during the last century glow with the names of great women. Florence Nightingale, the "Lady with the Lamp", Elizabeth Blackwell, the first American woman to be given the medical degree M.D.... Dr. Mary Putnam Jacobi... Jane Vada Meyer... Anna Doremus... the list is long. And brilliant.

In America today, thanks to the interest and spirit of these pioneers, 7,235 women doctors carry the lamps they lighted ever farther along the path of human welfare.

According to a recent Nationwide survey:

**MORE DOCTORS SMOKE CAMELS**  
THAN ANY OTHER CIGARETTE

• Men and women in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?  
The brand named most was Camel!

The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have won the same favor as medical circles as with millions of smokers the world around. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now.



TRY CAMELS ON YOUR "T-ZONE"

That's T for Taste and T for Throat... the most critical "laboratory" for any cigarette. See how your taste responds to the rich, full flavor of Camel's superb blend. See how your throat reacts to Camel's cool mildness. On the basis of the experience of many millions of smokers, we believe Camels will suit your "T-Zone" to a "T."



**CAMELS** Costlier Tobaccos

**"The greatest threat to knowledge is not ignorance but the illusion of knowledge" – Stephen Hawking**

**"They who know not and know not that they know not are fools – shun them!" - Persian proverb**

# The law is....

Where there is a foreseeable and preventable risk of harm to your neighbour, the owner has a duty of care to remove that risk.

INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION (ICNIRP)

<https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf>

***“ICNIRP Guidelines are unscientific and have serious limitations, require urgent re-evaluation.”***

(Chairman 2021-24: Prof Rodney Croft – psychologist – Wollongong Uni.)

<https://scholars.uow.edu.au/rodney-croft>

(Members should declare links to industry & conflicts of public interest.)

ICNIRP is a ***“captured agency”*** answerable to nobody.

<https://www.degruyter.com/document/doi/10.1515/reveh-2022-0106/html>

**ICNIRP *future* 5G setting:**

**Intensity <400,000,000  $\mu$ Watts/m<sup>2</sup>**

**The 'APPEAL' recommends:**

**Intensity <100  $\mu$ Watts/m<sup>2</sup>**

**Dissolve ICNIRP & Rescind Guidelines**

**<https://www.degruyter.com/document/doi/10.1515/reveh-2022-0106/html>**

***“You are a child  
of  
the universe,  
no less than  
the trees and the stars;  
you have a right to  
live...”***

**Desiderata - 1927**

