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SUBMISSION TO THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

RF/EMF Exposure and Human Health - *Response to the Request for Information* Docket HHS-OASH-2026-0397

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This submission is a structured snapshot of a much larger documentary archive. It distinguishes personal and community reports from established causal evidence and identifies questions for independent investigation.

Personal Experience, the Wishaw Cancer Cluster and the ECOLOG Report

I submit this response to the US Department of Health and Human Services (HHS) in my capacity as an individual, a breast cancer survivor, and Director and Co-Founder of the EM Radiation Research Trust. My involvement in the debate over radiofrequency (RF) radiation and public health began in **2001**, following my own breast cancer diagnosis while living approximately 100 metres from a mobile-phone mast in Wishaw, Sutton Coldfield, England. I was one of five women with breast cancer among residents reporting a cluster of serious illnesses in the vicinity of that mast.

We were families facing cancer, motor neurone disease (MND), other illnesses and considerable distress. We were not simply debating scientific theory. We were living with diagnoses, symptoms and unanswered questions about our health and our environment.

The illnesses and health concerns reported by residents included:

- Five women diagnosed with breast cancer
- One young man with prostate cancer
- Cases of bladder and lung cancer

- Precancerous cervical cell changes
- Motor neurone disease
- Benign lumps
- Reported electro-sensitivity, sleep disturbances, headaches, dizziness, skin rashes and other health concerns
- Concerns about low white blood cell counts and immune function
- A horse reportedly experiencing blood abnormalities requiring ongoing veterinary care

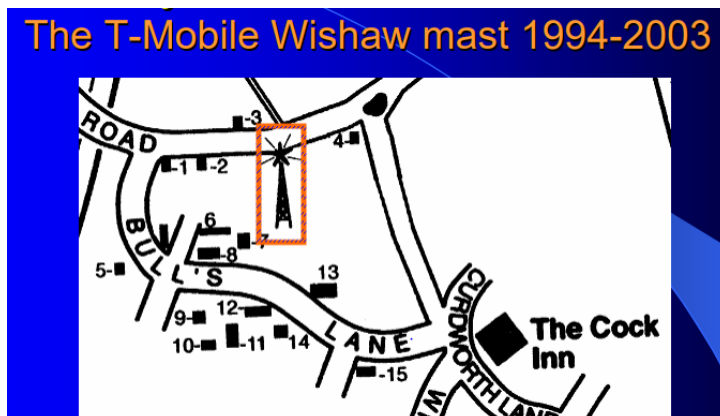
These were the experiences reported by our community and formed part of the concerns we sought to have investigated. They deserve to be documented accurately and considered seriously, rather than dismissed without a transparent examination of the evidence.

The Wishaw Mast: Years of Concern and Unanswered Questions

The mobile-phone mast had been installed in Wishaw in 1994. It was owned by T-Mobile and stood on land owned by Crown Castle at the time. During the years that followed, residents became increasingly concerned about the pattern of illnesses they were experiencing and reporting.

Residents conducted a household survey covering 18 houses within approximately 500 metres of the mast. They reported that **77% of the households surveyed experienced major health-related illnesses after approximately seven years of exposure**. This was a community-led survey that documented the scale of concern among the households involved and provided a clear reason to request independent investigation.

Map showing the houses surrounding the T-Mobile Mast.



The mast was removed in November 2003. Residents subsequently reported improvements in wellbeing and sleep, and the return of wildlife. These observations were deeply significant to those of us who had lived through the experience.

I was a co-founder and Chair of Seriously Concerned Residents Against Masts (SCRAM), a co-founder and Director of the EM Radiation Research Trust, and a co-founder and Board member of the International EMF Alliance. My campaigning grew out of the conviction that communities reporting serious health concerns deserve accessible information, independent scrutiny and meaningful answers.

Looking back, I remain deeply concerned about the pattern of illness reported in Wishaw and the lack of satisfactory answers available to residents at the time. These concerns were real, that residents sought help, and important questions about scientific evidence, exposure guidelines and public accountability remain relevant.

Compliance with Exposure Guidelines Was Not a Substitute for Investigation

We raised our concerns directly with those responsible, pleading for our health fears to be taken seriously. The response we repeatedly received was that the mast complied with the applicable exposure guidelines.

But compliance with a guideline and the investigation of a reported pattern of illness are not the same thing. Compliance addresses whether specified limits are met under the relevant assessment conditions; it does not, by itself, answer every question about long-term health outcomes, the adequacy of the evidence underlying those limits, or the need to investigate a disease cluster.

Our experience raises a fundamental public-health question: **when residents report serious illnesses near a telecommunications installation, what independent process ensures that their concerns are properly recorded, assessed and answered?**

That question becomes particularly important in light of the ECOLOG report commissioned by T-Mobile in 2000.

The ECOLOG Report Commissioned by T-Mobile in 2000

A significant part of this history is the report published by the ECOLOG-Institut in Hannover in April 2000:

Mobile Telecommunications and Health: Review of the Current Scientific Research in View of Precautionary Health Protection.

The report was commissioned by T-Mobil and DeTeMobil Deutsche Telekom MobilNet GmbH. Its authors were Dr Kerstin Hennies, Dr H.-Peter Neitzke and Dr Hartmut Voigt, with support from Dr Gisa-Kahle Anders. The literature review covered research available to the authors up to February 2000.

The original report and further background are now available on the Radiation Research Trust website:

Reference: <https://radiationresearch.org/the-ecolog-report-april-2000-mobile-telecommunications-and-health/>

We were not made aware of the T-Mobile **2000** ECOLOG report during the period when residents were seeking answers in **2001/2002** and pleading for help. We discovered it years later. Its significance is that it reviewed research on the potential health effects of mobile telecommunications.

The relevant records should be made available so that this history can be assessed fairly and transparently.

What ECOLOG Concluded and Why the Report Remains Important

ECOLOG examined a substantial body of scientific literature concerning biological effects and potential health implications associated with electromagnetic fields used in mobile telecommunications. Its authors discussed concerns including effects on the central nervous system and possible cancer-related effects. Their assessment led them to recommend more precautionary exposure limits than those then commonly applied.

The report stated:

“Given the results of the present epidemiological studies, it can be concluded that electromagnetic fields with frequencies in the mobile telecommunications range do play a role in the development of cancer. This is particularly notable for tumours of the central nervous system.”

This quotation reflects the authors’ interpretation of the epidemiological evidence available to them in 2000. It should be read in the context of the complete report. It is important because it records the conclusions reached by the authors at that time.

The significance of ECOLOG is not confined to the year in which it was published. It documents that concerns about potential health effects and the adequacy of existing exposure limits were already being examined in a scientific review commissioned by a telecommunications operator more than two decades ago.

Wishaw, 2003: Residents, Scientists and the Debate Over Mobile Phone Mast Safety

On 20 July 2003, Seriously Concerned Residents Against Masts (SCRAM) organised a major public meeting in Sutton Coldfield, attended by more than 200 people and chaired by Andrew Mitchell MP. The meeting brought together scientists, medical professionals, campaigners and residents to discuss mobile-phone mast exposure, reported illnesses and concerns about the adequacy of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines for protecting public health.

Among the speakers was Professor Gerard Hyland, whose paper, *Physics and biology of mobile telephony*, was published in *The Lancet* in 2000. Hyland’s argument went to the heart of how the biological effects of electromagnetic fields should be assessed. He drew attention to the distinction between thermal effects, which arise from heating, and non-thermal effects involving the complex electrochemical processes of living organisms.

Hyland emphasised that biological responses are inherently connected to the state of being alive. As he explained in his paper, non-thermal effects, because of their dependence on living systems nor, could everyone be expected to respond identically to the same exposure. This raised an important question for safety assessment: whether guidelines focused primarily on preventing excessive heating could adequately address the biological responses that do not depend on heating.

His contribution formed part of a wider discussion at the meeting about the adequacy of existing exposure guidelines, the biological significance of non-thermal effects and the need for further scientific scrutiny. For residents reporting illness in the vicinity of mobile-phone masts, these were not abstract questions. They concerned how potential risks should be investigated, how uncertainty should be handled and whether the experiences of affected communities were receiving sufficient attention.

Reference:

<https://www.thelancet.com/journals/lancet/article/PIIS0140673600032438/abstract>

Dr Grahame Blackwell: Concerns About Exposure Guidelines and Non-Thermal Biological Effects

Dr Grahame Blackwell was another speaker at the public meeting held in Sutton Coldfield on 20 July 2003. He addressed concerns about exposure to radiation from TETRA communications systems and mobile-phone masts.

Blackwell challenged the adequacy of exposure guidelines that focused primarily on preventing harmful tissue heating. He argued that non-thermal biological responses warranted consideration and referred to research that he believed indicated biological effects, including DNA strand breaks and the release of heat-shock proteins.

During his presentation, Blackwell compared the number of photons associated with radiofrequency transmissions with those present in sunlight and argued that the biological significance of electromagnetic exposure could not be assessed solely by considering heating. His argument reflected a broader concern among some speakers that the biological interactions of modulated electromagnetic fields were not fully addressed by the exposure guidelines.

Blackwell concluded with a dramatic symbolic gesture, tearing up a paper labelled “ICNIRP Certificate” to express his rejection of guidelines that he considered inadequate. This episode illustrated the strength of disagreement at the meeting over how biological effects should be assessed and how precautionary public-health policy should respond to unresolved questions.

Blackwell subsequently presented at the Radiation Research Trust conference held at the Royal Society in London on 8–9 September 2008. His presentation, *Paradigm Shifts: 20th Century Guidelines Seen in the Light of 21st Century Science*, argued that scientific developments over the preceding decades called for a reassessment of the assumptions underlying exposure guidelines for modulated electromagnetic radiation used in mobile telecommunications.

His presentation drew on a range of subjects, including human photoreception, electromagnetic signalling, cell biology, quantum tunnelling and possible interactions between electromagnetic fields and biological processes. He used these examples to argue that living organisms may respond to physical influences in ways that are not fully captured by conventional models of exposure and heating.

The 2003 meeting and the 2008 conference presentation form part of the historical record of the Radiation Research Trust’s efforts to bring questions about non-thermal effects, exposure standards and the adequacy of scientific assessment to the attention of researchers, policymakers and public authorities. The scientific claims advanced in these presentations should be considered alongside the underlying studies and the wider body of subsequent research.

Also addressing the meeting on 20 July 2003 was Barrie Trower, a former Royal Navy serviceman who reported specialist training in microwave warfare and radar and who subsequently became a campaigner on the reported health effects of microwave and wireless technologies.

Trower expressed serious concerns about the possible consequences of exposure to radiofrequency radiation, including the frequencies used by TETRA communications systems.

He argued that certain signal characteristics, including pulsing frequencies, warranted scrutiny because of their potential biological significance. He raised concerns about effects on brain function and behaviour and criticised what he regarded as longstanding governmental neglect of these issues.

In a stark warning to the meeting, Trower declared:

“Our NRPB, our government scientists, some of our government and the industry may be responsible in years to come for more deaths in peace time than all of the terrorist organisations ever”.

His contribution illustrates the depth of concern expressed by some speakers in 2003 about the adequacy of official scrutiny, the potential biological effects of wireless technologies and the responsibilities of public authorities. These remarks form part of the historical record of the meeting and the debate it brought into the public arena.

Reference: <https://radiationresearch.org/2003-sutton-coldfield-scientific-debate-on-phone-masts/>

Supporting Personal Testimony: Brian Stein CBE and the Radiation Research Trust

As Director of the Radiation Research Trust, I would like to draw the Department's attention to the experiences and advocacy of Brian Stein CBE, Chairman of the Trust, and to our shared efforts to raise awareness of electromagnetic hypersensitivity (EHS) and concerns about health effects of electromagnetic fields (EMFs).

Brian Stein, former Chief Executive of Samworth Brothers Ltd, developed electrosensitivity in 2000. His experience and subsequent decision to speak publicly about his condition have made him an important voice in the debate surrounding EHS and the experiences of people who report symptoms they associate with exposure to electromagnetic fields.

Brian has described how, following an unsatisfactory consultation with his doctor and subsequent contact with the National Radiological Protection Board (NRPB), he became reluctant to discuss his condition after it had been characterised as psychosomatic. Having heard from others reporting similar experiences and research into explanations, he decided to speak out.

People who report persistent, distressing or disabling symptoms deserve to be heard, treated with dignity and offered appropriate assessment and support. They should not feel that raising concerns about their health will automatically result in their experiences being dismissed.

Our work through the Radiation Research Trust has sought to bring these concerns to the attention of researchers, policymakers and public authorities, encourage greater scrutiny of the available evidence, and highlight the difficulties reported by people who believe their health is affected by electromagnetic exposure.

Brian's book, ***The Microwave Delusion***, co-authored with Jonathan Mantle, provides further insight into his personal experiences and his campaigning concerning wireless technology and electromagnetic radiation. His account is relevant to the wider discussion about how health authorities respond when individuals report symptoms for which the causes remain misunderstood.

I respectfully ask the U.S. Department of Health and Human Services to consider Brian's testimony, our work through the Radiation Research Trust, and the wider experiences of people reporting EHS alongside the available scientific literature. I encourage the Department to support transparent and independent research, critically evaluate the full range of relevant evidence, and ensure that the experiences of affected individuals are considered when identifying research priorities and developing appropriate public health responses.

Dr Andrew Tresidder: An Important UK Medical Voice on Electromagnetic Hypersensitivity

Following the submission from Brian Stein, Chairman of the Radiation Research Trust, I wish to draw HHS's attention to Dr Andrew Tresidder, a UK general practitioner whose clinical experience and mental-health work bring an important perspective to electromagnetic hypersensitivity (EHS), also referred to as electrosensitivity (ES).

Dr Tresidder has been a GP since 1989. His professional roles have included GP Patient Safety Lead and GP Academy Lead at Bristol Medical School. He is also a Section 12 approved doctor under the Mental Health Act. In his November 2018 letter, he states that he had undertaken at least 400 Mental Health Act assessments over ten years and had worked closely with psychiatrists.

This experience is particularly relevant because people reporting EHS may face not only distressing symptoms, but also the additional burden of having their experiences dismissed as purely psychological. Dr Tresidder opens his June 2020 letter to GPs and patients with a direct statement:

“Electrosensitivity (ES) is a very real illness. Many thousands who are severely affected in the UK can testify to this including a number I have diagnosed in my NHS practice as a GP, and others I have seen who can be severely affected.”

He describes patients who, in his experience, reported better sleep and fewer or no headaches after reducing electromagnetic sources in their bedrooms. He also warns that people reporting electrosensitivity may remain undiagnosed, be misdiagnosed or have their symptoms categorised as medically unexplained. He highlights gaps in medical training and the lack of specific diagnostic tests in routine NHS practice.

Dr Tresidder also challenges the assumption that radiofrequency exposure is harmless simply because it does not cause significant heating. His letter discusses possible biological mechanisms, including effects on cell signalling, DNA repair and blood–brain barrier permeability, which he believes warrant further investigation.

His contribution is important because it brings together first-hand clinical experience, concerns about the psychological dismissal of patients, and questions about medical education and existing safety guidance.

I urge HHS to consider Dr Tresidder's observations alongside the wider scientific literature and the experiences of affected individuals.

Original letters by Dr Andrew Tresidder - available to read and download:

Reference: <https://www.es-uk.info/wp-content/uploads/2020/07/ES-GP-patient-letter-June-20.pdf>

Reference: <https://www.es-uk.info/wp-content/uploads/2020/12/ES-letter-psych-paper-Novengineers-2018.pdf>

Electromagnetic Hypersensitivity: Emerging Mechanistic Research and the Need to Listen to Affected Communities

A 2025 peer-reviewed review by Denis Henshaw and Alasdair Philips, A mechanistic understanding of human magnetoreception validates the phenomenon of electromagnetic hypersensitivity (EHS), has attracted substantial international readership since its publication and is available as an open-access paper. The article examines biological mechanisms involved in the sensing and interaction of electromagnetic fields and considers their relevance to reported EHS symptoms. The authors discuss the possibility that biological mechanisms involving magnetoreception and electromagnetic-field interactions may provide a basis for understanding symptoms reported by some individuals at exposure levels below existing international guidelines.

Reference: <https://www.tandfonline.com/doi/full/10.1080/09553002.2024.2435329>

Henshaw and Philips, both scientific advisers to the EM Radiation Research Trust, have described the sensitivity of living organisms to magnetic fields and the growing mechanistic understanding of biological interactions with electromagnetic fields. They state:

“All forms of life sense magnetic fields, in some cases with exquisite sensitivity. Birds for example, detect magnetic field levels as low as 10 nano-tesla (nT). Humans detect levels as low as 100 nT, as evidenced from the effects of geomagnetic storms and research in space medicine. Overall, there is now a high level of mechanistic understanding of how exposure to electromagnetic fields can lead to a range of adverse health effects.”

The paper is important because it provides a basis for considering that reported electrosensitivity should not simply be reduced to an assumption that people experiencing symptoms are experiencing a psychological or “nocebo” response. Residents who experience symptoms or who have concerns about a proposed telecommunications installation must have sufficient time to understand the proposal, obtain exposure information, seek independent expert advice and put relevant evidence before the decision-maker. This is especially important for people who may consider themselves particularly vulnerable to electromagnetic exposure, including people reporting electrosensitivity, people with existing health concerns and those who rely upon implanted or other medical devices. Their concerns should not be excluded from consideration simply because they do not fit neatly within the assumptions of a regulatory model.

The Wider Record of Community Concerns

Wishaw was not the end of my involvement. Through subsequent campaigning and research, we documented reports of other cancer clusters and serious health concerns in communities living near mobile-phone masts and cell towers.

In a report published online on 22 April 2007, journalist Daniel Foggo described cancer and other illness clusters reported near mobile-phone masts, including a reported cluster in Warwickshire. These accounts are part of the historical record of public concern; media reports and geographic clusters illustrate why clear procedures are needed for recording such reports.

The history of the Wishaw mast cluster and the concerns raised by residents are documented in more detail by the EM Radiation Research Trust, including the early warnings, the 2004 Westminster Hall debate on mobile phone masts and the subsequent consideration of these concerns by UK health authorities. **Reference:**

<https://hansard.parliament.uk/Commons/2004-01-28/debates/51c53db0-c1a0-4159-a3c3-e365162b79ec/WestminsterHall>

On 21 May 2004, during the House of Commons debate on the *Town and Country Planning (Telecommunications Masts) Bill*, MPs formally recognised the efforts of campaigners documenting the Wishaw mast case. **Mr. Richard Spring (West Suffolk)** acknowledged the **Radiation Research Trust** for raising awareness and providing evidence about health risks associated with mobile phone masts. **Reference:**

<https://hansard.parliament.uk/Commons/2004-05-21/debates/a4d591ca-756f-4c5b-afb5-a870d72f6955/TownAndCountryPlanning%28TelecommunicationsMasts%29Bill>

In 2005, I personally delivered boxes of research to Mike O'Brien MP, then Parliamentary Under-Secretary of State for Trade and Industry. Compiled by Seriously Concerned Residents Against Masts (SCRAM), the Wishaw Papers brought together scientific studies and community-reported illnesses near mobile-phone masts. Following their submission, Mr O'Brien requested a review by the UK Health Protection Agency's Radiation Protection Division.

The review highlighted gaps in scientific knowledge and emphasised the importance of a precautionary approach, accessible public information and continued independent research. It also forms part of a wider history of questions about transparency in decisions concerning wireless infrastructure, the involvement of affected communities and the responsibilities of public authorities when scientific uncertainty remains.

The Wishaw Papers remain an important historical record of these concerns and support the continuing call for transparent access to scientific evidence, meaningful community involvement and precautionary, evidence-based public-health policies concerning electromagnetic field exposure.

Full Wishaw Papers PDF **Reference:** https://radiationresearch.org/wp-content/uploads/2019/07/20050817_latest_wishaw_papers.pdf

Sir William Stewart: A Cautious Voice in the UK

Warnings issued **26 years ago** by Sir William Stewart, the UK's former Chief Scientific Adviser to both Margaret Thatcher and Tony Blair, remain highly relevant today. In **2000**, as chair of the Independent Expert Group on Mobile Phones, Sir William published the landmark Stewart Report on mobile phone safety.

Key recommendations included:

- The **“beam of greatest intensity”** from any phone mast antenna should not fall on school grounds or buildings unless agreed by the school and parents.
- **Permitted development rights** for mobile phone base stations should be revoked.
- All new base station developments, including those under 15 metres in height, should be subject to the **full planning process**, particularly when near schools or other sensitive sites.

“For all base stations, including those with masts under 15m, permitted development rights should be revoked and the siting of all new base stations should be subject to the normal planning process.”

Reference: <https://radiationresearch.org/report-of-the-group-the-stewart-report/>

- **2007 BBC Panorama:** Speaking about mobile phones, masts, and health, Stewart noted:

“... there may be changes, for example in cognitive function... there were some indications that there may be cancer inductions... there was some molecular biology changes within the cell and these were issues that we had to bear in mind.”

— Sir William Stewart, BBC Panorama, 21 May 2007

Reference:

https://www.bbc.co.uk/pressoffice/pressreleases/stories/2007/05_may/21/panorama.shtml

- **Sir William Stewart - 2008 EM Radiation Research Trust presentation:** “There are additional factors that need to be taken into account in assessing any possible health effects. Populations as a whole are not genetically homogeneous and people can vary in their susceptibility to environmental hazards. There are well established examples in the literature of the genetic predisposition of some groups, which could influence sensitivity to disease. There could also be a dependence on age.” Sir William Stewart, 2008, Radiation Research Trust 2008 Royal Society Conference, London

Reference: https://radiationresearch.org/wp-content/uploads/2018/06/010920_stewart.pdf

The Developing Scientific Evidence: From Early Research to Recent Systematic Reviews

The questions raised by residents in Wishaw were part of a wider scientific debate about the potential health effects of radiofrequency electromagnetic fields (RF-EMF). Research published during the early 2000s examined cancer incidence near mobile-phone base stations, symptoms reported by nearby residents, and biological effects in laboratory studies.

Early epidemiological studies of mobile-phone base stations

The Naila study, Germany (Eger et al., 2004)

Researchers examined cancer incidence among residents living near mobile-phone base stations in Naila, Germany. Using general-practice records for approximately 1,000 people, the study reported a higher proportion of newly diagnosed cancers among residents who had lived within 400 metres of a transmitting site than among those living farther away. The authors reported that the difference was particularly apparent among residents who had lived near the site for a longer period.

The findings attracted attention because they suggested a possible geographical association between residential proximity to a base station and cancer incidence.

Reference: <https://www.emf-portal.org/en/article/11420>

The Netanya study, Israel (Wolf and Wolf, 2004)

Wolf and Wolf investigated cancer incidence among residents living near a mobile-phone transmitter station in Netanya, Israel. The authors reported an elevated incidence of cancer in the population studied, including a particularly elevated estimate among women.

This study also formed part of the early epidemiological debate about reported health effects near base stations. **Reference:** <https://www.emf-portal.org/en/article/19820>

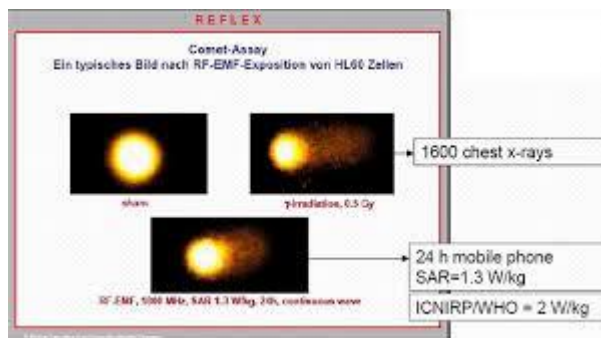
The REFLEX Project: Significant Findings Demand Urgent, Independent Replication

The European Commission-funded REFLEX project (2000–2004) involved 12 research laboratories across seven European countries. It investigated the biological effects of electromagnetic-field exposure, including DNA strand breaks and changes in cellular activity. Researchers reported findings indicating that certain radiofrequency exposure conditions were associated with DNA damage and other cellular responses.

These findings raise important questions about potential biological mechanisms and must not be dismissed simply because they became controversial.

Where research reports potentially serious biological effects, urgent, rigorous and genuinely independent replication is essential. HHS should commission an impartial assessment of the original REFLEX research, subsequent replication studies and the associated legal proceedings. Further research should be conducted by independent researchers, with transparent methods, full disclosure of funding and potential conflicts of interest, and publication of results regardless of outcome.

Figure X. Comet-assay images illustrating reported DNA damage in REFLEX-related research.



The images compare sham-exposed cells, cells exposed to ionising radiation, and cells exposed to 1,800 MHz radiofrequency fields for 24 hours at a reported SAR of 1.3 W/kg.

Primary reference: Diem E, Schwarz C, Adlkofer F, Jahn O, Rüdiger H. (2005). “Non-thermal DNA breakage by mobile-phone radiation (1800 MHz) in human fibroblasts and in transformed GFSH-R17 rat granulosa cells in vitro.” *Mutation Research*, 583(2), 178–183.

Reference: <https://www.sciencedirect.com/science/article/abs/pii/S1383571805000896>

Further background: EM Radiation Research Trust, “Never Forget REFLEX: EM Radiation Research Trust Honors Groundbreaking Science.”

Reference: <https://radiationresearch.org/never-forget-reflex-em-radiation-research-trust-honors-groundbreaking-science/>

Leif Salford's Research on Mobile Phones and the Blood–Brain Barrier

Professor Leif G. Salford and colleagues at Lund University investigated the effects of radiofrequency (RF) electromagnetic fields on the blood–brain barrier (BBB) and brain neurons.

In a 2003 study published in *Environmental Health Perspectives*, the researchers reported statistically significant neuronal damage in the cerebral cortex, hippocampus and basal ganglia of rats exposed to GSM mobile-phone fields for two hours.

This built on earlier research by the same group reporting increased leakage of albumin across the blood–brain barrier following exposure to **weak pulsed microwaves**. The 2003 study investigated whether such exposure might also be associated with neuronal damage.

Reference: <https://doi.org/10.1289/ehp.6039>

Professor Salford's powerful presentation, *Electromagnetic Fields and Leakage of the Blood Brain Barrier*, opens with a stark warning. His opening slides state that a single two-hour exposure to a cell phone, even at reduced power, was shown to damage or destroy up to 2% of an animal's brain cells. He also highlights memory impairment, genetic damage and other biological effects reported in research involving rats and cells at Lund University, Sweden.

Salford opens by stating that almost two-thirds of the world's population are volunteering as "guinea pigs in the world's largest biological experiment," adding that "there is no control population anymore."

Presentation: <https://www.youtube.com/watch?v=6f5F8vp3OQk>

These findings warrant serious consideration alongside subsequent research and independent replication studies. I ask HHS to include the Salford research in a comprehensive review of evidence concerning RF exposure and the central nervous system.

Radiation Research Trust Collaboration: INTERPHONE, Scientific Limitations and the Interpretation of Evidence

The interpretation of research into mobile-phone radiation and brain tumours has been the subject of sustained scientific debate. In (2009/2010), the International EMF Collaborative published *Cellphones and Brain Tumors: 15 Reasons for Concern, Science, Spin and the Truth Behind INTERPHONE*, a report associated with several organisations, including the EM Radiation Research Trust. The report challenged aspects of the interpretation and communication of the INTERPHONE study findings and called for closer scrutiny of the potential implications of long-term and heavy mobile-phone use.

Interphone reliance on subscription status as a proxy for exposure, combined with the exclusion of corporate subscriptions, created the potential for substantial exposure misclassification. Despite these limitations, the study is often treated as reassuring evidence.

"Low quality" should not become a convenient label for making inconvenient findings disappear while methodologically problematic null results are treated as evidence of safety.

These and other methodological concerns have been examined in detail in the report, **Cellphones and Brain Tumors: 15 Reasons for Concern – Science, Spin and the Truth Behind Interphone**. It examined the large international Interphone study and identified methodological concerns that could have biased the results towards underestimating risk.

No family should have to discover years later that a potentially relevant scientific question was inadequately examined. Nor should uncertainty be used to imply that a particular technology has been proved safe when the evidence does not support that conclusion. Public confidence depends on the fair, independent and transparent assessment of both positive and null findings.

The report *Cellphones and Brain Tumors: 15 Reasons for Concern* also included testimony from Chris Woollams, an endorser of the report, who argued for greater precaution in the introduction of wireless technologies, particularly where children are concerned. His statement reflected both his interpretation of the scientific literature and his personal experience of losing his daughter to a brain tumour. It illustrates the human concerns underlying the debate.

He said: “In a world where a drug cannot be launched without proof that it is safe, where the use of herbs and natural compounds available to all since early Egyptian times are now questioned, their safety subjected to the deepest scrutiny, where a new food cannot be launched without prior approval, the idea that we can use mobile telephony, including masts, and introduce WiFi and mobile phones without restrictions around our 5 year olds is double-standards gone mad. I speak, not just as an editor and scientist that has looked in depth at all the research, but as a father that lost his beloved daughter to a brain tumour.” Chris Woollams M.A. Biochemistry (Oxon). Editor Integrated Cancer and Oncology News (icon magazine). CEO CANCERactive.

Reference: <https://www.powerwatch.org.uk/science/15reasons.asp?pf=0>

This concern is reinforced by Philips and Henshaw’s analysis of English cancer registry data, which reported that glioblastoma incidence more than doubled between 1995 and 2015; as discussed in my feature, the findings highlight the need to investigate environmental and lifestyle factors, including long-term mobile-phone exposure.

Reference: <https://radiationresearch.org/theres-no-evidence-that-mobile-phones-will-give-you-brain-cancer-the-science-says-otherwise/>

I ask HHS to consider the INTERPHONE study alongside the criticisms raised by the Radiation Research Trust and other contributors. HHS should examine not only whether RF exposure may have health implications, but whether existing exposure-assessment methods adequately account for children.

Children’s Vulnerability and Age-Dependent RF Exposure: Christ et al. (2010)

The concerns raised about mobile-phone use and brain tumours are particularly important when considering children, whose developing anatomy may affect how radiofrequency (RF) energy is absorbed and distributed within the head. Research by Christ et al. (2010) highlights the importance of assessing exposure.

Age Dependent RF Exposure in Children: Christ et al. (2010)

Children are not simply smaller adults. Age related differences in anatomy and tissue properties can affect the distribution of absorbed radiofrequency (RF) energy.

Christ et al. (2010), in a peer reviewed study published in *Physics in Medicine & Biology*, found that locally induced electric fields in children could exceed those in adults by more than 3 dB in certain brain regions and the eye, and by more than 10 dB in bone marrow. The authors also found no age dependent difference in peak spatial specific absorption rate (SAR) averaged over the entire head, highlighting the importance of distinguishing whole head averages from localized tissue exposure.

I urge HHS to assess whether existing RF exposure limits and compliance methods adequately account for children's age dependent anatomy and tissue specific exposure, and to identify relevant research gaps.

Reference: Christ A, Gosselin MC, Christopoulou M, Kühn S, Kuster N. (2010). "Age dependent tissue specific exposure of cell phone users." *Physics in Medicine & Biology*, 55(7), 1767–1783. <https://doi.org/10.1088/0031-9155/55/7/001>

Research into Symptoms Reported Near Base Stations

Studies in several countries have investigated symptoms reported by people living near mobile-phone base stations, including headaches, sleep disturbance, fatigue, dizziness and difficulty concentrating.

Abdel-Rassoul and colleagues, in a 2007 study published in *NeuroToxicology*, compared 85 residents living near a mobile-phone base station in Egypt with 80 controls. The researchers reported differences in certain self-reported symptoms and neurobehavioural test results between the groups. These findings warrant consideration.

Reference: Abdel-Rassoul G et al. (2007). "Neurobehavioral effects among inhabitants around mobile phone base stations." *NeuroToxicology*, 28(2), 434–440.

Reference: <https://pubmed.ncbi.nlm.nih.gov/16962663/>

Other observational studies have also reported associations between proximity to base stations and reported symptoms. These findings reinforce the need for well-designed, independent research.

Why the historical evidence matters today

These early epidemiological and laboratory studies demonstrate that questions about cancer incidence, reported symptoms and reported biological effects were being investigated more than two decades ago. They form part of the research history that should be considered alongside subsequent epidemiological studies, laboratory experiments, animal studies and systematic reviews.

Balmori review (2022)

Balmori reviewed 38 studies examining human health outcomes among people living near mobile-phone base stations. The review classified 28 of the 38 studies (73.6%) as reporting effects. Within the review, 10 of 13 studies classified as investigating cancer reported effects; the remaining categories included reported symptoms and changes in biochemical parameters.

In his conclusion, Balmori raised concerns about how scientific warnings and possible health risks are communicated to the public. He argued that the gap between reported findings and public communication could ultimately lead to a crisis. This raises an important question for public-health policy: how should scientific uncertainty, reported health concerns and calls for precaution be communicated transparently, while ensuring that the evidence is assessed rigorously and independently.

Reference: <https://pubmed.ncbi.nlm.nih.gov/35843283/>

Research and scientific reviews published since 2000 have continued to investigate health effects associated with radiofrequency (RF) electromagnetic fields:

BioInitiative Report (2007; updated 2022): An extensive review of research on electromagnetic fields and radiofrequency radiation, raising concerns about biological effects and reported health risks and advocating more precautionary public-exposure limits. The following research results, published in Henry Lai's 2022 research summaries on the BioInitiative website, summarise studies reporting effects (E) and no effects (NE) in research on radiofrequency radiation (RFR) and extremely low-frequency electromagnetic fields (ELF-EMF)/static fields, as reported in April and May 2022.

RFR Genetic Effects Studies (4/24/2022): Of 423 studies, E = 291 (68%); NE = 132 (32%).

ELF-EMF/Static Field Genetic Effects Studies (4/23/2022): Of 307 studies, E = 257 (84%); NE = 50 (16%).

RFR Neurological Studies Effects (4/24/2022): Of 391 total studies, E = 291 (74%); NE = 100 (26%).

ELF-EMF/Static Field Neurological Studies (4/5/2022): Of 311 total studies, E = 283 (91%); NE = 28 (9%).

RFR Free Radical (Oxidative Damage) Studies (5/4/2022): Of 288 total studies, E = 263 (91%); NE = 25 (9%).

ELF-EMF/Static Field Free Radical (Oxidative Damage) Studies (4/18/2022): Of 298 total studies, E = 270 (90%); NE = 28 (10%).

Reference: <https://bioinitiative.org/>

Further Scientific Research on Radiofrequency Radiation and Cancer Risk

- IARC Classification (2011): The International Agency for Research on Cancer classified radiofrequency electromagnetic fields as “possibly carcinogenic to humans” (Group 2B). **Reference:** https://www.iarc.who.int/wp-content/uploads/2018/07/pr208_E.pdf
- US National Toxicology Program (NTP, 2018): Long-term animal studies reported evidence of certain tumours in male rats exposed to radiofrequency radiation under the experimental conditions studied.

Reference: <https://ntp.niehs.nih.gov/research/topics/cellphones>

- Ramazzini Institute Study (2018): This long-term animal study reported findings including an increased incidence of heart schwannomas in male rats exposed to far-field radiofrequency radiation **Reference:** <https://pubmed.ncbi.nlm.nih.gov/29530389/>
- **WHO-Commissioned Systematic Review (2025):** A systematic review published in *Environment International* examined cancer findings in laboratory animals exposed to RF electromagnetic fields. It reported **high-certainty evidence of increased incidences of malignant heart schwannomas and gliomas in experimental animals.** These findings are important to the assessment of potential hazards. Read the Radiation Research Trust review:

Reference: <https://radiationresearch.org/breaking-news-who-emf-project-review-reached-a-critical-conclusion-there-is-reliable-evidence-that-rf-wireless-radiation-increases-the-incidence-of-cancer-in-laboratory-animals/>

These publications demonstrate why the scientific record deserves careful, transparent and continuing assessment. They reinforce the importance of investigating residents' reports, assessing real-world exposure, examining the adequacy of exposure standards and ensuring that relevant scientific evidence is accessible to the public.

More than two decades later, the central questions remain important for public policy: How should health concerns reported by communities be investigated?

From Wishaw to Parliament and the International Scientific Debate

Since my breast cancer diagnosis in 2001 and the health concerns reported by residents living near the mobile-phone mast in Wishaw, I have worked tirelessly to bring these issues to the attention of policymakers, scientists, regulators and the wider public. I have taken my concerns to the UK and European Parliaments, engaged with the media, spoken at the Commonwealth Club in California, and presented evidence and concerns at scientific and policy forums.

Through the EM Radiation Research Trust, I have also worked to encourage open scientific debate. In 2008, the Trust organised a major conference at the Royal Society in London, bringing together prominent contributors from different sides of the electromagnetic-field health debate. The presentations remain available to download, preserving an important record of the questions, evidence and disagreements discussed at that time.

My own presentations document how these concerns have continued to be raised across successive years and institutions:

- **2006 - UK Health Protection Agency, London:** On 16 October 2006, I presented “*Base Stations and Health Concerns*” to the HPA’s EMF Discussion Group.
Reference: <https://radiationresearch.org/wp-content/uploads/2017/02/2006-emfdg.pdf>
- **2007 - Royal Society, London:** I presented “*Wishaw Mobile Phone Mast and the Cancer Cluster*” at the Emergency Conference on Human Health in an Electro Technological World, which examined whether existing ICNIRP electromagnetic-field exposure recommendations were adequate.
Reference: <https://radiationresearch.org/wp-content/uploads/2017/02/2007-rs.pdf>
- **2008 - EM Radiation Research Trust conference, Royal Society, London:** The Trust brought together contributors representing different perspectives on electromagnetic fields and health. The conference presentations remain available as a resource for those wishing to examine the evidence and debate.
Reference: <https://radiationresearch.org/2008-conference-presentations/>
- **2010 November – Commonwealth Club Program on Health Effects of Cell Phones, Wireless Technologies & Electromagnetic Fields.** ElectromagneticHealth.org records the full-day public forum held on 18 November 2010 at Commonwealth Club of California, San Francisco. **Reference:** <https://electromagnetichealth.org/electromagnetic-health-blog/cc-video/>
- **2014 - EU Workshop on Electromagnetic Fields and Health Effects, Athens, Greece:** On 28 March 2014, I presented at “*EMF and Health Effects: From Science to Policy and Public Awareness*”, contributing to discussions about the relationship between

scientific evidence, policy and public understanding. **Reference:** https://health.ec.europa.eu/document/download/5f4c2c79-f45b-4201-938f-9cf24c492c75_en?filename=ev_20140328_co14_en.pdf

- **September, 2019 - EM Radiation Research Trust Conference** presentations featuring Prof Martin Pall, Prof Lennart Hardell, Dr Ron Melnick, Dr Andrea Vornoli, Radiation Research Trust Chairman Brian Stein CBE, Dr Peter Ohnsorge, and Dr Erica Mallery Blythe – **Reference:** <https://radiationresearch.org/september-28th-conference-presentations/>

These are snapshots of a much longer effort. For years, I and others have sought meaningful scrutiny of reported health concerns.

5G, Public Health Concerns and Local Authority Accountability

Liverpool's role in 5G development

Liverpool became a significant early UK 5G testbed through its Health and Social Care project, which began in April 2018 as part of the Government's DCMS 5G Testbeds and Trials Programme.

Liverpool 5G reported that its project had created the largest 5G millimetre-wave (mmWave) network in the UK and the second largest in the world. This scale of deployment made Liverpool a significant focus of my concerns about the expansion of wireless infrastructure and the need for independent scrutiny of its potential health implications.

Sources: <https://liverpool5g.org.uk/health-social-care-testbed/> and <https://liverpool5g.org.uk/about-us/>.

In 2019, as Director of the EM Radiation Research Trust (RRT), I raised concerns about the proposed 5G rollout with regional political leaders, including the then Mayor of Liverpool. My correspondence challenged the adequacy of existing safety guidance and called for independent scrutiny.

Research and the campaign against Sefton Council

Liverpool and neighbouring Sefton are both part of the wider Merseyside region. My engagement with Liverpool's political leadership in 2019 and my subsequent campaign against Sefton Council are connected by a central concern: the expansion of 5G and next-generation wireless infrastructure, and whether public health concerns are receiving adequate independent scrutiny.

My campaign against Sefton Council has focused on its plans for next-generation wireless infrastructure, public health concerns and the need for transparent decision-making and meaningful public consultation. I have submitted questions, attended council meetings and maintained correspondence seeking answers about the Council's approach to 5G and public health.

These concerns are reinforced by research including the 2024 review by Professor Lennart Hardell and Mona Nilsson of seven Swedish case reports involving 16 people, aged four to 83, who reported health problems following the installation or activation of nearby 5G base stations. Reported symptoms included sleep disturbance, headaches, fatigue and difficulties

with concentration and memory. These reports raise serious questions and underscore the urgent need for further independent investigation.

The campaign history, questions and supporting records are available in the RRT archive.

Reference: <https://radiationresearch.org/sefton-council-and-5g-public-health-concerns/>

A call for precaution and recognition of Professor Lennart Hardell's work

The expansion of 5G must not be treated solely as a technological or economic issue. Public health, independent scientific scrutiny, transparency and meaningful public consultation must be central to decisions affecting communities.

The EM Radiation Research Trust has consistently highlighted the importance of Professor Lennart Hardell's research on radiofrequency radiation and cancer. His decades of scientific work, published research and willingness to challenge prevailing safety assumptions make his contribution essential to the debate over wireless technology and public health. His findings and concerns deserve serious consideration by governments, health authorities and policymakers.

The RRT's report on his work, provides further background on his research and its relevance to the debate over wireless exposure and health protection.

Reference: <https://www.radiationresearch.org/wp-content/uploads/2019/10/Prof-Lennart-Hardell-Mobile-phones-wireless-communication-and-health-%E2%80%93-the-Evidence.pdf>

In the documentary *5G – The Untold Story*, premiered in June 2025, Professor Hardell gave a stark warning:

“My advice would be to dismantle 5G. It is a toxic agent that has been forced upon human beings.” — Professor Lennart Hardell.

Source: <https://radiationresearch.org/5g-the-untold-story-premiered-11-june-2025/>

When Professor Hardell speaks, the world needs to listen. His research and warnings demand serious engagement, independent scrutiny and precautionary action from those responsible for protecting public health.

How long must communities wait for answers?

My experience demonstrates the importance of taking residents' concerns seriously, documenting them properly and investigating them through independent, rigorous scientific methods.

Compliance with an exposure guideline must not become a reason to shut down legitimate questions, withhold relevant information or avoid independent investigation.

My Request to the US Department of Health and Human Services

I ask HHS to consider the Wishaw experience in community reporting, scientific transparency and public-health accountability. I also ask the Department to consider the wider scientific evidence, including the IARC classification of RF electromagnetic fields, the US National Toxicology Program's long-term animal studies, the Ramazzini Institute study and subsequent systematic reviews.

I request a transparent, independent and multidisciplinary review that:

1. Examines how communities' reports of cancer clusters and other serious illnesses near telecommunications installations are recorded, assessed and followed up.
2. Evaluates the relevant epidemiological evidence using sound methods, appropriate comparison populations and careful consideration of confounding factors.
3. Improves real-world exposure assessment, including consideration of exposure patterns over time and the limitations of relying solely on compliance measurements.
4. Examines the evidence and assumptions underlying exposure standards, including how scientific uncertainty and precaution are addressed.
5. Promotes transparency around operator-commissioned scientific reports and ensures that relevant assessments are accessible to the public.
6. Supports appropriate long-term health surveillance and independent investigation where credible patterns of illness are reported.

Wishaw was an early warning call: what are today's cancer trends telling us?

The Radiation Research Trust has documented this history in its article.

Reference: <https://radiationresearch.org/early-warnings-the-wishaw-mast-cancer-cluster-and-t-mobiles-internal-evidence/>.

The Wishaw experience, together with the ECOLOG report commissioned in 2000, raises enduring questions about precaution, the disclosure of relevant scientific assessments and the responsibility to investigate reported patterns of illness transparently.

More than two decades later, cancer trends provide a further reason to ask whether all relevant risk factors are being adequately investigated.

Cancer in Younger Adults: Important Trends and Unanswered Questions

Research has documented increasing incidence rates for several cancer types among younger adults, raising important questions about the factors contributing to these trends. A 2025 analysis highlighted by the US National Cancer Institute found that incidence increased for 14 of the 33 cancer types examined among Americans under 50 during 2010–2019. These included breast and colorectal cancers.

An England-based study published in *BMJ Oncology* in April 2026 examined cancer incidence trends between 2001 and 2019 and assessed whether changes in established behavioural risk factors could explain increases among adults aged 20–49. Their findings highlight the need to investigate additional potential contributors while continuing to address established, modifiable cancer risk factors.

International Evidence on Rising Cancer Incidence in Younger Adults

Similar patterns have been reported internationally. A population-based study published in *The Lancet Regional Health – Europe* in 2026 examined incidence trends across the Nordic countries between 2003 and 2022. It found statistically significant increases in 12 of the 18 cancer sites studied among people aged 20–49, with particularly marked increases in colon, kidney and thyroid cancers.

The Nordic study provides a useful international comparison with the findings reported by Garcia-Closas and colleagues in *BMJ Oncology*. These studies demonstrate that increasing incidence among younger adults affects multiple cancer types and geographical populations.

The public health priority is therefore twofold: to strengthen prevention efforts addressing risk factors and to support rigorous research into other plausible contributors. Environmental exposures should be investigated by independent scientists using robust methods, appropriate exposure assessment and transparent evaluation.

The central issue is not simply whether cancer incidence is increasing for particular cancer types among younger adults, but why these trends are occurring and which factors may be contributing to them. Where existing explanations do not fully account for observed changes, further investigation is warranted. A coordinated research approach that evaluates established risk factors alongside emerging hypotheses including environmental and early-life exposures would help address these evidence gaps, strengthen cancer prevention strategies and inform public health policy.

- National Cancer Institute, Trends in Early Onset Cancers (2025).

Reference: <https://dceg.cancer.gov/news-events/news/2025/early-onset-cancer-rates>

- Garcia-Closas M, Richards Z, Frost R, et al. Temporal trends in behavioural risk factors for cancers with rising incidence in younger adults: an analysis of population-based data in England. *BMJ Oncology*. 2026

Reference: <https://bmjoncology.bmj.com/content/5/1/e000966>

- Johansson A Lv, Kønig SM, Cardoso R, et al. Trends in early-onset cancer incidence rates in the Nordic countries (2003–2022): a population-based study. *The Lancet Regional Health – Europe*. 2026.

Reference: <https://pubmed.ncbi.nlm.nih.gov/42761845/>

Why this matters for HHS

The Wishaw experience and today's cancer trends raise a common question: **are public-health investigations sufficiently open-minded, independent and comprehensive to identify potential risks before more communities are left searching for answers?**

I ask HHS to consider both the historical lessons of Wishaw and the contemporary evidence on cancer trends when evaluating priorities for environmental health research. This should include transparent review of the scientific evidence on RF exposure, improved investigation of community-reported disease patterns, appropriate long-term surveillance, and clear public access to relevant scientific assessments.

Wishaw should remind us why early warnings matter. Today's cancer trends reinforce the need to ask difficult questions, investigate plausible explanations rigorously and ensure that no potentially relevant exposure is excluded from scrutiny without adequate scientific justification. Public confidence depends not on assuming that a particular technology is responsible, but on demonstrating that the evidence has been examined independently, comprehensively and transparently.

No family should have to spend years searching for information. Communities deserve clear answers, transparent access to relevant evidence and confidence that their concerns will be examined independently and fairly.

Taking the Campaign to US Regulators: Submission to the FCC

My efforts to secure greater transparency and accountability have extended beyond the UK and Europe. On 15 January 2026, the EM Radiation Research Trust submitted comments to the US Federal Communications Commission (FCC) in **WT Docket No. 25-276**, concerning the preservation of local control over cell-tower siting.

The submission highlighted the Trust's grassroots campaigning, including its letter-writing campaign and engagement with Sefton Council, alongside concerns about public health, local decision-making and the importance of addressing questions raised by communities.

This submission provides a further documented example of how concerns initially raised by residents have developed into sustained engagement with public authorities and regulators internationally. **Reference:** <https://radiationresearch.org/wp-content/uploads/2026/01/RRT-Submission-to-the-FCC.pdf>

Canada - Innovation, Science and Economic Development Canada (ISED), October 2026

The Trust has also submitted detailed reply comments to Innovation, Science and Economic Development Canada concerning proposed changes to Canada's tower-siting and public consultation process. ISED confirmed receipt of the submission.

The comments emphasise meaningful consultation, sufficient time for communities to respond, accessible public notifications, transparency in technical assessments, public safety and the importance of local knowledge in telecommunications planning. **Reference:** <https://radiationresearch.org/rrt-submits-reply-comments-to-ised-canada-on-proposed-tower-siting-reforms/>

These submissions document the continuation of a campaign that began with community concerns and has developed into sustained engagement with public authorities and regulators across several countries. They reflect the Trust's position that residents should have meaningful opportunities to examine proposals, raise questions and participate in decisions that affect their communities.

Conclusion: The Time for Urgent Action Is Long Overdue

The evidence and testimony presented in this submission raise serious questions that must not be ignored. From the community experience at Wishaw to the concerns raised by medical professionals, researchers and affected individuals, a consistent demand emerges: these reports must be properly investigated, the scientific evidence independently assessed, and unresolved questions addressed.

The issue is not simply what was known in the past, but what has been learned since, whether the research has been sufficient, and whether current safety standards and public-health policies adequately reflect the available evidence. Findings relating to biological effects, reports of illness and the clinical experiences of people who associate their symptoms with electromagnetic-field exposure warrant serious and impartial examination.

There is also a fundamental imbalance that HHS must recognise. Those raising concerns about reported health risks are often up against powerful commercial interests with substantial financial resources to fund lobbying, influence public debate and shape the narrative around wireless technology. This makes genuine scientific independence essential. Research priorities, safety assessments and public-health policies must not be unduly influenced by commercial interests, and the public must be able to trust that decisions are based on robust evidence rather than financial or political pressure. Full transparency over research funding, conflicts of interest, lobbying and the basis for regulatory decisions is vital to restoring and maintaining that trust.

I therefore urge the US Department of Health and Human Services (HHS) to commission a comprehensive, independent review of the evidence, including historical investigations, relevant scientific studies, clinical observations and the experiences of affected communities. Where significant questions remain unanswered, HHS should support further research conducted transparently and independently, with funding and potential conflicts of interest fully disclosed and results published regardless of outcome.

The time to address these outstanding questions is long overdue. The precautionary principle must be applied urgently to protect public health, particularly the most vulnerable, including children exposed to wireless technologies in schools and homes, people living near mobile phone masts, and communities increasingly surrounded by wireless devices and smart meters.

There must be an urgent, large-scale public education campaign so that people understand the reported risks being debated, the limits of current scientific knowledge and the practical steps available to reduce exposure. The public must not be left unknowingly participating in what may amount to a vast, uncontrolled experiment without transparent information, proper investigation of potential risks or meaningful consideration of safer alternatives.

People experiencing symptoms they associate with electromagnetic-field exposure must not be dismissed or left without appropriate assessment and support. There is a pressing need to investigate whether some cases are being misdiagnosed, improve medical education and provide clear, balanced guidance on practical exposure-reduction measures. These should include greater use of wired alternatives, such as Ethernet connections, rather than relying unnecessarily on wireless technology.

HHS should also support genuinely independent scientific research, with transparent funding arrangements, disclosure of conflicts of interest and publication of results regardless of outcome. Research must be sufficiently broad to investigate biological mechanisms, reported health effects, long-term exposure and the effectiveness of practical exposure-reduction measures. The objective must be to establish the evidence, address unresolved questions and develop safer technological approaches.

People who report illness deserve to be heard, assessed and treated with respect. Scientific uncertainty must be a reason to investigate not an excuse for inaction or dismissal. Public confidence depends on research that is rigorous, transparent and independent, and on safety policies that respond appropriately to emerging evidence rather than allowing important questions to remain unresolved.

The Public's Right to Know, Choose and Have a Say

The public has a fundamental right to know about potential health risks, uncertainties in the scientific evidence and the limitations of existing safety standards, so that people can make informed decisions about their own exposure. People may choose to use mobile phones and other wireless technologies, but that choice is not the same as consenting to continuous, involuntary exposure in their homes and communities. Residents may have little or no control over nearby mobile phone masts, smart meters and the ever-expanding infrastructure of wireless technology, yet they are expected to live with the consequences without meaningful consultation or a genuine opportunity to influence decisions.

Informed consent cannot be meaningful without information, and choice is not genuine when exposure cannot reasonably be avoided. People should not be denied a voice in decisions that affect their homes, health and living environment. Communities deserve transparent information, meaningful consultation before infrastructure is installed, access to independent assessments of potential risks, and the opportunity to question decisions and have their concerns properly considered.

This is a demand for accountability, transparency and respect for the public. Decisions about wireless technology must not be made solely by industry and regulators while the people who live with the consequences are excluded from the discussion. **The public has a right to be informed, a right to be heard, and a right to have its concerns taken seriously.** Technological progress must not come at the expense of public participation, informed choice and the protection of health.

Our children and future generations must not be left to bear the consequences of unanswered questions that could and should be investigated now. The public deserves transparency, informed choices and effective protection of health.

The Radiation Research Trust urges HHS to ensure that these concerns receive the serious, independent and urgent attention they warrant. The potential consequences of failing to investigate these concerns adequately could be catastrophic for public health, with serious implications for current and future generations. HHS must not allow unanswered questions, inadequate research or competing commercial interests to stand in the way of a thorough, independent investigation. The cost of failing to act could be immense.

The time for urgent action is long overdue.

Wishaw Was an Early Warning: Can We Afford to Ignore the Questions?

Wishaw must not be forgotten. In 2001, my own experience as a breast cancer survivor living approximately 100 metres from a mobile-phone mast brought me face to face with the human consequences of unanswered questions about the environment and public health. In the community surrounding that mast, residents reported a disturbing range of illnesses and health problems. A survey of 18 households within approximately 500 metres found that 77% reported major health-related illnesses after around seven years of exposure. This was a serious warning that deserved rigorous, independent investigation.

More than two decades later, questions about the reported health effects of long-term exposure to electromagnetic fields remain important. Reports of cancer occurring at younger ages, alongside concerns about other serious illnesses, make it essential that changing patterns of disease are investigated thoroughly and that potential environmental contributors are not

overlooked. These trends must be examined and must not be dismissed as irrelevant to the wider public-health debate.

How many warnings must be raised before we demand answers?

The Radiation Research Trust is asking for the evidence to be examined honestly, comprehensively and independently, without commercial pressure or premature dismissal. Where credible findings raise concerns, they must be investigated. Where evidence is incomplete, the gaps must be addressed. Where safer alternatives are available, they should be actively adopted. Protecting public health must take priority over unnecessary reliance on wireless technology, particularly where practical wired alternatives can provide the same function without adding avoidable radiofrequency exposure.

The lesson of Wishaw is that communities should not have to live with unanswered questions about their health and environment.

HHS has an opportunity to ensure that independent science, public transparency and the protection of future generations take precedence over complacency and commercial interests.

Wishaw was an early warning. Let us ensure that future generations do not look back and ask why we failed to listen or wish that they had known sooner what questions to ask, what precautions they could take, and how best to protect their own health and the health of those they love, especially their children, older people and the most vulnerable in our society.

The public has a right to be informed, to make meaningful choices and to take reasonable steps to protect themselves and their families. That right must not be denied through a lack of transparency, inadequate public information or a failure to investigate potential risks.

A Final Warning

As Robert O. Becker, twice nominated for the Nobel Prize, pioneering researcher and author of *The Body Electric* and *Cross Currents*, warned:

“I have no doubt in my mind that at the present time the greatest polluting element in the Earth’s environment is the proliferation of electromagnetic fields. I consider that to be a far greater threat on a global scale than warming, or the increase of chemical elements in the environment.” — Dr Robert O. Becker

Reference: Radiation Research Trust, *Global Alert: A Planetary Threat Hidden in Plain Sight* <https://radiationresearch.org/global-alert-a-planetary-threat-hidden-in-plain-sight/>

Becker’s warning deserves serious consideration. I urge the U.S. Department of Health and Human Services to ensure that the reported health effects of electromagnetic-field exposure receive rigorous, urgent, independent investigation, transparent assessment and appropriate public-health attention. The responsibility to investigate credible concerns must not be allowed to fall behind the rapid expansion of wireless technology.

We dedicate this work to the children and families whose health and wellbeing are at the heart of our mission. We ask that decisions about technology give due weight to the evidence, recognise uncertainty where it exists, and place human dignity and the wellbeing of future generations at the centre of public-health policy.

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