

## EMR Aware

# Electromagnetic Radiation Concerns and Informed Choices

View Latest Newsletter

Our Newsletters | Scientific Evidence | Reducing EMR | Measuring EMR | Networking and Support

## **Newsletter April 2015**

Welcome to the **April 2015** edition of our online Newsletter. Please send a link to this page to as many interested persons as you wish. If any of the external webpages linked herein have been taken down, try to find another source by cutting and pasting the actual title of the article into your search bar. To assist with a fair and balanced discussion, our primary focus is upon the side of the story you may not hear from industry and their obliging

government regulators. Be sure to check out all our newsletters. Taken as a whole, they form a comprehensive overview of emerging technologies, scientific findings, safety reform, and the worldwide EMR debate.

EMR Aware is a not-for-profit association based in Byron Shire on the Northcoast of NSW Australia. In addition to relaying the latest news from contacts worldwide, our group provides commentary on local issues, as well as a range of free community-oriented services. The latter include educational literature, audiovisual presentations, and a DVD containing thousands of research studies on the adverse effects of electromagnetic radiation (EMR).

## Byron Council's New Tower Policy



A motion was tabled by Cr. Rose Wanchap at the 19 March meeting of Byron Shire Council that new policy be initiated on siting of phone towers. It was passed unanimously as follows:

#### 9.2 Resolution:

- 1. That Council review Policy No. 11/001
  "Telecommunication Facilities on Council Owned Land" including consideration of the following:
- "2.2 (c) That land owner's consent for any new development proposal for radiofrequency and/or microwave base station transceivers which are proposed to be sited within 500 metres of any school, preschool or residential premises will generally not be given. Support will be given to alternative sites (on both public and private land) which have satisfactorily addressed public health issues and the possibility of adverse biological effects, visual amenity, loss of property value and environmental damage.
- 2. That Council receive a report on amending the DCP where considered appropriate in relation to the location of telecommunication facilities, within 500m of schools and preschools.

The photo above is from an earlier vote where Council refused approval for a Telstra tower near schools and residences. Byron Shire can now truly claim to have positioned itself at the forefront of providing best practice EMR outcomes for residents and visitors, while still assisting service providers to find suitable locations. http://www.echo.net.au/2015/02/byron-council-refuses-telstra-permission-tower/

## NBN Tower Clothiers Creek - Update





In the presence of numerous protesters, one of whom chained herself to a truck, the NBN tower at Clothiers Creek was erected on 20 March. The authorities ignored paid opinion from a Senior Counsel that there was no valid construction permit. This possibly "illegal" situation resulted from NBN Co., with the complicity of Tweed Shire Council, choosing to proceed under the category of "complying development". However, there is a requirement under the State Environmental Planning Policy (SEPP Infrastructure Clause 20B) that for any use to be so designated, it must be "permissible with consent" which was apparently lacking in this instance.

http://www.echo.net.au/2015/03/nbncoignores-residents-protest-illegal-towers/ http://www.tweeddailynews.com.au/news/ video-residents-protest-against-nbnco-internettow/2567781/? utm\_campaign=Mailchimp+Morning+News&utm \_source=Tweed+Daily+News&utm\_medium=e mail

What Made a Retired Town Planner Lock-on to the Side of a Truck. http://www.echo.net.au/2015/03/what-made-a-retired-town-planner-lock-on-to-the-side-of-a-truck/

The same legal advisor also pointed out SEPP Clause 114.1 as a possible loop hole for NBN Co. should a court injunction be undertaken. It

states, "Development for the purposes of telecommunications facilities (including radio facilities) may be carried out by a public authority without consent on any land." See page 26 of the following document. http://www.planning.nsw.gov.au/Portals/0/PolicyAndLegislation/
NSW\_Telecommunications\_Facilities\_Guideline\_Final\_July\_2010.pdf

The question then arises, why is every such tower not simply installed under this umbrella clause? Perhaps it has to do with maintaining public faith in democracy, private land ownership and corporate ethics. Maybe it is about getting local Councils to "approve" the facility, and landowners to sign a Lease, so as to off-load liability for damage or injury. Or ... is it instead that NBN Co. is NOT a "public authority" at all according to Part 7.95 of the National Broadband Network Companies Act (2011)? http://www.comlaw.gov.au/Details/C2011A00022/Html/Text# Toc289934739

As part of ongoing efforts to untangle this web, and call for greater justice and transparency, Senator John Madigan has hand-delivered a letter on behalf of the Clothiers Creek group to Malcolm Turnbull, Minister for Communications and architect of the current NBN wireless scheme. They also received support from Greens Senator Scott Ludlum.

Discussion continues with Tweed Shire Council, the approving body, regarding perceived irregularities in the way the tower was handled. A formal letter from concerned residents, posted August 2014 requested that it NOT be considered a "complying development". It was only replied to in January 2015. In the meantime a Complying Development Certificate was approved by a private certifier in October 2014. Strangely, Council seems to have lost their internal report on consultations with NBN Co. and Visionstream, the project manager, which should ordinarily be available for public viewing.

In expectation of ensuing litigation, live blood tests have been conducted, similar to this action in Germany (2006/2007) where residents removed all wireless equipment from their homes weeks prior to a tower being put up nearby; then baseline blood samples were taken. Five months after the tower went operational, new samples were taken and those showed significant hormone level changes. http://www.mast-victims.org/resources/docs/Kempten-West-Study-EN.pdf

Unlike Clothiers Creek, the NBN tower in Reesville, Maleny is being subjected by their Local Council to a full DA process. The community welcomes this opportunity for meaningful input. However, it has been revealed

that in spite of assurances of consultation prior to selecting a site, Aurecon workers have staked out their preferred turf on Howell's knob. Here is an excellent slide presentation prepared by activist Jim Straker. http://www.emraware.com/scc\_presentations.pdf

This facility, and presumably others in the area, will use the new 3.5GHz band which is part of the licensed NBN spectrum. http://www.itwire.com/it-industry-news/telecoms-and-nbn/67151-nbn-completes-35-ghz-wireless-trial

We can find no evidence that this frequency has been vetted for adverse biological effects. Current safety regulations define acceptable public exposure levels only in terms of broad bandwidths. Consequently, frequency-specific responses remain largely unaccounted for. In addition, the wave shape of the applied signal is highly significant. Oscar and Hawkins reported in a 1977 study that "continuous and pulsed EMFs both increased brain-tissue permeability, but that, depending on the particular pulse characteristics, pulsed energy could be either more or less effective than continuous-wave energy." The bottom line is that proliferation of electro-technologies has far outpaced our knowledge of living systems. The same finding also raises the prospect that provocation studies might, unintentionally or otherwise, administer a less harmful signal, thereby predisposing an

industry-friendly result.

Wherever we go, we will be immersed in a sea of low-level, pulsed microwave signals. It is not a good thing to proceed toward a world of ubiquitous wireless communication in a totally uncontrolled fashion ... - Leading microwave researcher, Dr. Ross Adey (Oct 2000)

## **Ballina Electorate**

#### **Candidates' Position on EMR**

The NSW State elections are on 28 March. We asked five of our seven local candidates to respond by email to the following four questions. Email addresses could not be found to contact Mr Hartley and Zylber.

If elected would you support:

- 1) A home occupant's choice to not have a microwave emitting device, such as a "smart" electricity meter or NBN wireless antenna, installed upon their premises?
- 2) Future phone or NBN towers not being situated any closer than 500 metres from homes or schools?
- 3) That Australian industry and regulatory authorities apply more stringent or precautionary safety standards with regard to

human exposure to electromagnetic radiation?

4) A government-endorsed campaign to educate the public on safer use of personal wireless devices such as mobile phones?

Here are the results. Kris Beavis (Nationals) - no reply, Jeff Johnson (Independent) - no reply

#### Tamara Smith (Greens)

- 1. Yes
- 2. Absolutely yes, as a mum and a teacher I think this should be a minimum standard in NSW and Australia
- 3. Yes, totally agree
- 4. Yes, I worry that we are all swimming around in a mobile device electromagnetic radiation ocean that our science cannot keep up with let alone our medical researchers in terms of the effect on us and other living things. The Greens see that it should be the government's role to support an educational campaign and I think it so important to have a campaign that is explicit and recommends ways to mitigate exposure.

#### Paul Spooner (Country Labor)

- 1) Yes, I would agree with occupants having the choice about what is installed on their premises.
- 2) Yes, I would agree with not situating towers less than 500 metres from schools.
- 3) Yes, I agree with Australian Standards being applied by ARPANSA (Australian Radiation

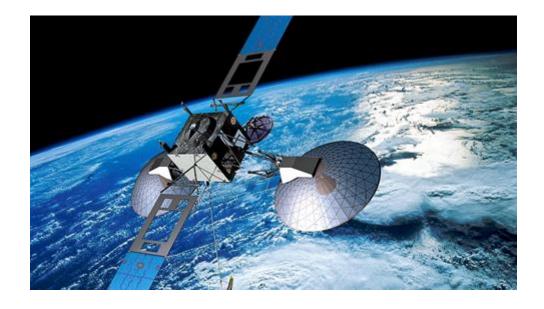
Protection and Nuclear Safety Agency).

4) Yes, I agree an education campaign on safe use of wireless devices would be useful.

Vyvyan Stott (Christian Democrats)

- 1) Yes
- 2) Yes, and any existing towers that have been erected without due process should be taken down and compensation paid.
- 3) Yes, current standards are over 30 years outof-date and based upon the recommendations of industry groups such as ICNIRP.
- 4) Yes, I would like to see this taught in schools as well.

## Micro-waving Your Planet Goodbye



The five companies below are gearing up to provide global Wi-Fi coverage from outer space.

The following information was received from the newly formed, International Alliance Against Global WiFi coverage. If you would like to be on their email list, contact Arthur Firstenberg at bearstar@fastmail.fm

Google: 200,000 high altitude balloons, 62,500 feet. http://www.dailymail.co.uk/sciencetech/article-2646039/Googles-plans-world-domination-Search-giant-launch-180-satellites-bring-internet-access-ENTIRE-planet.html SpaceX: 4,000 satellites, 700 miles high OneWeb: 2,400 satellites, 500 miles high Facebook: Satellites and drones. http://www.wired.com/2014/03/facebook-drones/, http://www.theguardian.com/technology/2014/mar/04/facebook-talks-drone-satellite-firm-internet

Outernet: Low-orbit Microsatellites (LEOs), drones, and lasers.

http://www.dailymail.co.uk/sciencetech/ article-2552177/Forget-Internet-soon-OUTERNET-Company-plans-beam-free-wi-fiperson-Earth-space.html

OneWeb's constellation of satellites would provide approximately 10 Terabits per second of high-speed internet access to billions of people around the world, even in the most remote areas. http://www.honeywellnow.com/2015/03/02/in-game-changing-new-partnership-honeywell-and-oneweb-bring-high-

#### speed-in-flight-wifi-to-billions-worldwide/

The SpaceX internet venture is planned to station its satellites only 500 miles above the Earth, much closer than traditional ones in geosynchronous orbit at altitudes of up to 22,000 miles. The lower satellites would make for a speedier internet service, with less distance for electromagnetic signals to travel. Its promoter, Elon Musk, has offered to donate part of the proceeds to colonising Mars, perhaps the new holiday destination for electrosensitives. http://www.bloomberg.com/ news/articles/2015-01-17/elon-musk-andspacex-plan-a-space-internet, http:// www.bustle.com/articles/59222-elon-muskwants-the-internet-in-space-will-use-theprofits-to-put-humans-on#!

You can sign an online petition here. https://secure.avaaz.org/en/petition/
Private\_satellite\_companies\_Stop\_Global\_WiFi/
?eqCTTdb

## **Fast-tracking Ozone Loss**

Rocket exhaust contains ozone-destroying chlorine, water vapor and aluminum oxide particles that seed stratospheric clouds, facilitating the ozone destruction. New York Times, 14 May 1991, p. 4 quoted Aleksandr Dunayev of the Russian Space Agency saying, "About 300 launches of the space shuttle each

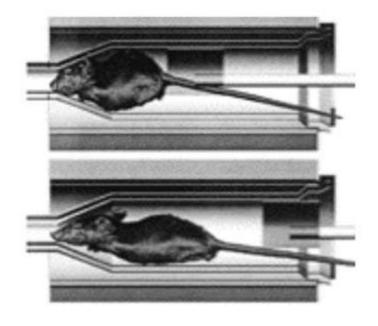
year would be a catastrophe and the ozone layer would be completely destroyed. To maintain a fleet of 4,000 low-orbit satellites, each with a planned lifespan of five years, would require 800 launches per year. We believe that not only the atmosphere, and thus weather patterns, will be adversely affected, but also human health." http://www.eucass-proceedings.eu/articles/eucass/pdf/2013/01/eucass4p657.pdf

## **Another Skeptic Sees the Light**

Former denier of non-thermal EMR bioeffects, Alex Lerchl of Jacobs University, has shown that mice exposed in the womb with a known cancer agent, ENU, and then exposed to a UMTS cell phone signal had significantly higher rates of tumors of the liver and the lung, as well as of lymphoma than with ENU alone. This is a replication of an earlier experiment that found weak cell phone signals promote the growth of tumors in mice. It used radiation levels that do not cause heating and are well below current safety standards. Of particular relevance, lower doses were often found to be more effective tumor promoters than higher levels; in effect, turning the conventional concept of a linear dose-response on its head. It should be noted that there is significant prior evidence of this

type of "windowing", both in terms of applied amplitude and frequency. Knowledge in this area needs to be greatly expanded before we can presume to have truly safe exposure standards. http://www.microwavenews.com/news-center/rf-animal-cancer-promotion, http://informahealthcare.com/doi/abs/10.3109/09553001003734501

Want to set up rigged experiments to "prove"
EMR has no bioeffects? Here is one possible way
to do it, compliments of a major phone
manufacturer. How many other industry-funded
studies are similarly open to question? EC
Animal Studies: Stress Confounds Results.
http://www.microwavenews.com/docs/
PERFORMA.pdf, http://microwavenews.com/
news-center/ec-animal-studies-stressconfounds-results





The mice jammed into metal tubes were too stressed to respond to anything.

Princeton University Removes Wi-Fi Safety
Assurances From Their Website. http://
www.parentsforsafetechnology.org/princetonuniversity-removes-wifi-safety-assurances.html

Germany Warns Citizens to Avoid using Wireless Radiation. https://www.youtube.com/watch? v=X\_B9se5I59c

## **Stay Calm - It's a Palm**





An alert reader sent in this photo of a phone tower in Lutwyche, Brisbane disguised as a palm tree sprouting fibreglass dates (antennae). Why go to the trouble? Because public objections based upon loss of "visual amenity" are at the forefront of those deemed valid by the current regulatory regime in Australia. In a nod to industry, health concerns are summarily dismissed, even by the Courts which typically defer to "ARPANSA and will hear no scientific evidence no matter how convincing. As you can see from the following web page, the resulting superficial appearsement strategy takes its cue from trends in the USA. http://twistedsifter.com/2012/08/examples-ofcell-phone-tower-disguises/





Decoration does not change radiation. The Optus tower (yellow circle) at Byron Bay Industrial Estate recently underwent its 4G make-over. Hundreds of people live and work within a few hundred metres radius. There is also a Telstra tower (red circle) just 100 metres away. Where the transmission lobes overlap the field intensity is additive. To top it off, the taxi service (blue circle) between the two operates their own high power radio system. It's a real hotspot.

### **EMF Labeling Policy in Korea**

Should people not have the right to know when they are entering zones of relatively high microwave intensity? The South Korean Government thinks so. Their Ministry of Science, ICT and Future Planning announced a new EMF rating and labeling policy, last year. All radio base stations, which are subject to exposure assessment before putting into service, will also be regulated by the policy. Those who manufacture or import such devices should affix the labels for the SAR rating, and/ or display the highest SAR values appropriately. There are increasing demands for this type of action worldwide. Read the full report to the WHO here. http://www.who.int/peh-emf/

## Seeing Your Invisible Environment

How do you quantify energetic influences that are not dectected by the senses, such as the levels of EMR in your home or workplace? This requires a purpose-built meter, and there are an increasing number on the market. People ask us which we recommend for personal use. Depending on the frequency band of interest, here are two examples. At the time of this writing, both are available on Australian eBay for the price indicated. Note that a fully reliable EMR survey requires a trained professional with certified in-calibration equipment.





On the left: Tenmars TM-191 (\$75.45 AUD). Range "low frequency": 30-300Hz. Reads in Gauss. Intended for mains wiring, general appliances, and power lines. On the right: Cornet Electrosmog ED85EXS (\$218.99 AUD). Range "radio frequency": 1 MHz to 8GHz. Reads in Decibels, Milliwatts, and Volts per metre. Suitable for wireless, mobile telephony, radio and TV transmissions. Both companies also offer models that measure both low frequncy and RF. But the specialised versions mentiond above generally offer higher sensitivity. To save on cost, why not purchase a meter collectively with a few friends? You can then learn about methods to minimize exposure, and have an allimportant means to objectify how well they are working.

http://www.tenmars.com/webls-en-us/05.html http://www.cornetmicro.com/

Next step up in cost are the popular German-

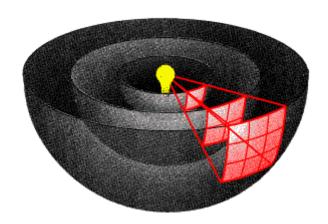
made meters from GigaHertz Solutions. Some feature log periodic antennae for direction finding the EMR source. http://www.gigahertz-solutions.com/en/Online-Shop/
Measurement.html

### **Keeping Your Distance**

The signal strength (EIRP) of a radio frequency device/antenna is expressed in Watts, or, less frequently, the logarithmic scale of Decibels. This is its total output power but does not equate "as is" to a finite level of exposure. The latter is a function of impacted surface area, i.e. your skin. In simplest terms, think of the source as a pinpoint radiating uniformly in all directions. At any set distance therefrom, the field geometry is contiguous with the surface of an imaginary sphere of the same radius. At one metre out, such a sphere has a surface area of about 12.5 square meters (A=4 pi r2). If the power of the transmitter is 12.5 Watts, that means 1 Watt of EMR will fall upon each square metre, e.g. the 12.5W is spread out over 12.5m2.

Now, let's double the distance to two metres. According to spherical math, the surface area is now four times greater, or about 50 square metres. Consequently, each square metre will receive 12.5W divided by 50, or only 0.25W. In other words, every time the distance is doubled, the dose per given unit of surface area is

lessened by a factor of 4. This is termed the "inverse square law". When it comes to reducing absorption of EMR from any source, the key message is that distance works greatly in one's favour. For example, at 10m away, you will receive 100 times less radiation than at 1m. It should be noted that more complex calculations are needed in the instance of a directional antenna; one that focuses the total emitted Wattage upon a smaller area. Here is an online calculator to assist with basic computations. http://www.calculatorsoup.com/calculators/geometry-solids/sphere.php



## **Units of Measurement**

Using the aforementioned figure of 0.25W/m2, there are by convention several ways this could be expressed. Multiplying it by 1000, e.g. the number of milliwatts in a Watt, yields 250mW/m2. Dividing it by 10,000, the number of square centimetres in a square metre, results in 0.025mW/cm2. In the literature, you will find all of these, and more, used depending on the

predisposition of the author. It is therefore important not to get them mixed up, especially when correlating measured field intensities with data from scientific reports on biological effects.

## Into the White Zone



Just normal people here on planet Earth.

Are we witnessing a divergence of the human race into two streams; one that has developed a crude tolerance for EMR and another that has not? Residents fear their remote West Virginia "quiet zone" protected from electromagnetic radiation is under threat. The area is the epicentre of the only legislated "quiet zone" in the US, due to a radio telescope facility, and may well be the last inhabited place in the US without a mobile phone tower. http://

www.abc.net.au/news/2015-03-10/remote-quiet-zone-in-west-virginia-under-threat/6295798

Swiss Apartment Village Constructed for "Hypersensitives" - No Mobile Phones or Wi-Fi Allowed.

http://thewatchers.adorraeli.com/2014/04/16/ swiss-apartment-village-constructed-forhypersensitives-no-perfume-mobile-phones-orwi-fi-allowed/

Electric Blues - Rare Allergy Drives Tech Guru into Seclusion. http://jamaica-gleaner.com/article/lead-stories/20141011/electric-blues-rare-allergy-drives-tech-guru-seclusion

Anyone who assumes protected wilderness is energetically pristine might feel let down by this recent notice from Binna Burra Mountain Lodge. "Those who have been up to the Teahouse in the last few days will have seen the hive of activity with construction work taking place on a tower. The Government Wireless Network (GWN) is the communication system used in emergencies by agencies such as Police, Fire, Ambulance and SES. This tower completes a network that should cover the whole of the Lamington National Park." It is our understanding this utilises either the P25 or TETRA platform. While it is uncertain if other services will be co-located on the tower, it is worth noting that the UK is ditching the TETRA

network, once touted as the new world standard, and shifting to 4G. http://www.theregister.co.uk/2015/01/08/airwave\_tetra\_switch\_off\_gov\_services\_onmish ambles/

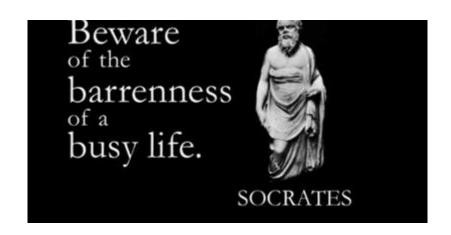
Why the police and emergency services are happy to see TETRA go. AirWave (TETRA) Health Monitoring Study. UK Police Federation. http://www.police-health.org.uk/

Science indicates that birds, bats and insects, among the most sensitive creatures on Earth, avoid microwave infested airspace. The following investigation found that 50KHz to 5MHz, at an intensity 1,000 times below the limit advocated as safe by the World Health Organization, was enough to disorient migratory birds. Anthropogenic Electromagnetic Noise Disrupts Magnetic Compass Orientation in a Migratory Bird. http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html

Inside the "Quiet Zone" - Home for Electrosensitives. http://www.abc.net.au/lateline/content/2015/s4195094.htm

The Town Without Wi-Fi. http://www.washingtonian.com/articles/people/the-town-without-wi-fi/

#### TV Interview by SBS



There is currently an informal EHS refuge operating in Myrrhee VIC. We have received notice that SBS TV will be arriving on 30 March to interview EHS suffers for an upcoming documentary. The Sydney Morning Herald has also recently been there. Anyone who is interested in visiting the property and participating in the above event is invited to contact Bruce Evans at:

radiationrefuge@abuconga.com

## **Engulfed By the Grid**



The introduction of smart metering is supposedly based upon sound logic and benefit to the consumer. Why then are bus-loads of Irish police needed to suppress opposition to smart water meters? As well as microwave exposure, there will be higher charges and taxes. Dublin Residents Arrested at Protest Against Water Meter Installations. http://www.demotix.com/news/5866300/dublin-residents-arrested-protest-against-water-meter-installations#media-5866131

Back in Australia, reports claim that fees imposed to finance smart electricity meters in Victoria have sucked up to \$1000 from each household budget since 2010. "By year's end the accumulated cost will reach \$1,018 for those in Jemena's network in the northwestern suburbs. For AusNet Services regions across the Eastern suburbs and Northeast and Eastern Victoria it will hit \$783. And for United Energy's Southeastern suburbs and Mornington Peninsula zone it will reach \$690. For CitiPower's CBD and inner suburbs it is \$654. For Powercor's area in the Western suburbs, Western and Northwestern Victoria, it is \$647." About 20,000 customers Statewide have defied attempts to install microwave smart meters upon their premises, many by restricting access to their privately owned meter box. Critics, relying upon

legal advice, claim the so-called "mandate" to install these meters in not an enforceable law, yet many felt bullied into accepting them.

A smart meter rebel has become the first Victorian convicted for illegally disabling one of the devices when it was installed at his home. The householder was fined \$750 and ordered to pay \$11,737.31 in costs. Energy Safe Victoria charged the man with safety offenses after he cut the smart meter's wires and disconnected it on the same day it was installed in late 2013. http://www.heraldsun.com.au/news/victoria/man-must-pay-12000-for-disabling-smart-meter/story-fni0fit3-1227261862555

### **Update on Sophia's VCAT Hearing**

Sofia Telemzouguer, a Melbourne IT specialist who experienced health problems subsequent to installation of a smart electricity meter on her home, has initiated a VCAT case aimed at having her analogue meter restored by United Energy Ltd (UE). At last year's hearing (15 December) certain directions were given to comply with during February. According to the account received, the points below summarise what transpired in relation to those requirements.

By 7 February 2015, Sofia was required to supply a list of witnesses together with a short summary of their statements and medical

evidence relating to her electro-sensitive condition to both UE and to VCAT prior to the Hearing date. She complied with this Order.

On 20 February, a Hearing was held whereby Sofia was present via a telephone link from her home due to her EMR sensitivity. At the Hearing, UE lodged an application against her under Section 78 that aimed to dismiss her claims against them as being a vexatious. They then applied for costs against her. The VCAT member adjourned the case for one week to give Sofia an opportunity to respond.

On 27 Feb 2015, Sofia's pro-bono lawyer represented her in VCAT while Sofia remained at home due to the high EMR levels at VCAT.

"All I know from my lawyer was that he won on two points, meaning the case wasn't dismissed and I am not a vexatious litigant. However, due to my 'bad behaviour' (by requesting the change of venue due to health reasons - 3 times, and because 'UE strongly objected', and the fact that I was running for Parliament) I was fined \$9,500. None of my evidence has been heard - yet I am fined. The VCAT member refused to accept the witnesses who are sick from EMR like I am. She said it's not relevant to my case. The above is briefly what happened. This is what we call justice/democracy etc. " - Sofia

At the next VCAT Hearing in early May, it is expected Sophia's lawyer will re-establish that the matter be argued on the illegal disconnection basis originally filed for, and steer it away from "unwinnable" medical issues that both UE and VCAT have so far insisted she base her case on.

Needless to say, this will be a landmark ruling.
Anyone who would like to donate toward
Sophia's ongoing expenses is invited to email
Alan Manson: manalan77@gmail.com

Legal proceedings against smart meters are occurring all over the world. Here is expert testimony submitted by the Maine Coalition to Stop Smart Meters. http://www.mainecoalitiontostopsmartmeters.org/2013/02/introduction-to-our-puc-filings-of-expert-and-lay-witness-testimony/

Exhibit D - Smart Meter Health Effects Survey and Report. http://www.emraware.com/smart\_meter\_survey.pdf

Symptoms After exposure to Smart Meter Radiation. http://www.emraware.com/smart\_meter\_symptoms.pdf

Smart Meter Roll-out a Waste of Money Says New Study. http://smartgridawareness.org/2014/12/21/smart-meter-rollout-a-waste-of-money/

Smart Meters Have Failed and Were a Dumb Investment. http://smartgridawareness.org/2014/12/18/smart-meters-have-failed/

## **Appliances That Own You**



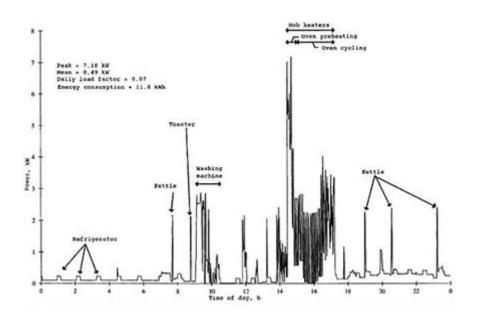
The global smart grid agenda encompasses far more than metering of household electricity, gas and water. The Home Area Network (HAN), comprised of the ZigBee module within each smart meter and responsive "smart appliances", promises even greater levels of intrusion into everyone's lives. Smart televisions, connected to the internet, now monitor your living room via built-in microphones and video cameras. Yes, It's True. I'm Terrified of My New TV. http://www.salon.com/2014/10/30/im\_terrified\_of\_my\_new\_tv\_why\_im\_scared\_to \_turn\_this\_thing\_on\_and\_youd\_be\_too/

Smart TV's Are Watching You. http://

www.pocket-lint.com/news/130437-smart-tvs-are-watching-you-which-shares-your-private-data-most-samsung-lg-sony-and-more

Today In Creepy Privacy Policies, Samsung's Eavesdropping TV. http://techcrunch.com/ 2015/02/08/telescreen/

Internet of Things - Privacy and Security in a Connected World. http://www.ftc.gov/system/files/documents/reports/federal-trade-commission-staff-report-november-2013-workshop-entitled-internet-things-privacy/150127iotrpt.pdf



Profile of home electricity use on a one minute time base.

As shown above chart, even usage of un-smart appliances can be monitored, via their energy signatures, if your home has been fitted with a smart meter. What is the benefit of knowing when someone uses their toaster? Selling this

information to commercial entities is a new and lucrative source of income for electricity suppliers. It can also assist, without your informed consent, insurance companies, welfare agencies, divorce lawyers, and others who may not be acting in your best interests. Harvesting Smart Meter Data. http://www.bloomberg.com/news/articles/2014-05-11/wpp-unit-onzo-study-harvesting-smart-meter-data

This rapidly emerging agenda is starting to resemble something like mass house arrest, or a reality peep show for Big Brother. DARPA Wants You to Transcribe and Instantly Recall All of Your Conversations. http://www.wired.com/2013/03/darpa-speech/

#### **Smart Meter or TOU Meter?**



Even though the smart meter roll-out is

ostensibly on-hold in NSW, some customers are alarmed to discover they have been "upgraded" to a meter like the one shown above. While being "smarter" than the older analogue (spinning wheel) technology, this is not THE dreaded "smart meters" that relays data to the distributor via a microwave link. It is simply a manually read, digital device with a TOU or "time of use" function. The purpose is to more precisely impose peak billing rates, and hence charge you more for the same amount of electricity. However, they do give rise to other complaints, as explained on the following webpage. http://www.ewon.com.au/index.cfm/news/articles/tou-meters/

Bidirectional meters, typically installed with grid-connected solar, are another type of non-RF digital meter. However, any of these can be replaced by a smart meter which incorporates the same functions. Be vigilant.

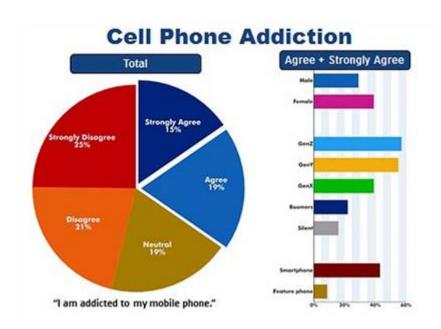
## **Signposts of Addiction**

Addiction: "Preoccupation with a substance or behavior, followed by an increased tolerance. The 'high' produced by those substances replaces the function of brain chemicals."





The tactics used by the wireless technology sector to groom public opinion resemble those of the pre-enlightened tobacco era. Recent evidence suggests exposure to stimulation by microwaves is addictive in ways which transcend mere habit and convenience. Is this the secret ingredient that keeps consumers wanting more? Below are a few examples of increasingly observed psychological disorders.



Technology as candy. In this survey, a minority or 46% disagree that they are addicted.

My iPhone Addiction Was Making Me a Terrible Mom. http://www.washingtonpost.com/news/parenting/wp/2015/03/09/my-iphone-addiction-was-making-me-a-terrible-mom/

Boston Medical Centre study. Don't Text While Parenting. http://time.com/14953/parents-who-use-smartphones-in-front-of-their-kids-are-crankier/

66% of the Population Suffer from "No-mophobia". https://www.securenvoy.com/blog/2012/02/16/66-of-the-population-suffer-from-nomophobia-the-fear-of-being-without-their-phone/

It just gets stranger all the time. Phantom Pocket Vibration Syndrome. https://www.psychologytoday.com/blog/rewired-the-psychology-technology/201305/phantom-pocket-vibration-syndrome

I Forgot My Phone. https://www.youtube.com/watch?v=OINa46HeWg8

I Forgot Myself. Lakeland, Florida: Police say a 27-year-old woman who was texting walked into the path of a freight train. Police Sgt. Gary Gross told the Ledger of Lakeland the woman "wasn't paying attention." She suffered a compound fracture to her right arm, and her right leg was injured. What he could have added was that she was probably in a mild

trance state.

#### Is EMR an "Electronic Drug"?

Recent studies indicate short-term 900 MHz low level electromagnetic radiation exposure raises blood serotonin levels. If sustained, this can manifest as serotonin syndrome which has been linked to sleep disorders (insomnia), nausea, dizziness, agitation, headaches, memory issues, and mood changes. Most EHS people experience a number of these same issues. This link challenges the prevailing attitude of some scientists that EHS is purely psychological. Affected persons may instinctively try to compensate for the resulting lack of clarity and concentration by consuming dopamine stimulants such as caffeine or chocolate, the veneration of which is obviously on the rise.

Ten male Wistar Albino rats were anesthetized 30 min before the Long term exposure to low level electromagnetic radiation (LLER) exposure, 0.5 ml blood was taken from the tail vein of rats in order to determine control values. It was found that a single 45 min of LLER exposure increased the blood 5-HT level significantly, but did not change the glutamate level of rats. Increased 5-HT level may lead to a retarded learning and a deficit in spatial memory. http://www.ncbi.nlm.nih.gov/pubmed/25665475?dopt=Abstract

There is also this earlier research. http://www.ncbi.nlm.nih.gov/pubmed/15143927

Microwave Bio-effect Congruence with Schizophrenia. http://www.slavery.org.uk/microwavecongruenceschiz.htm

## Dark History of Microwaves

Microwaves were first deployed by the armed forces as British coastal radar in the late 1930's. Operators quickly presented with symptoms which came to be known as "microwave sickness". This triggered exhaustive studies such as this one dating from 1972. The unabridged version is 106 pages long and includes 2300 scientific references. http://www.magdahavas.com/wordpress/wp-content/uploads/2011/06/Glaser\_1972\_shortened.pdf

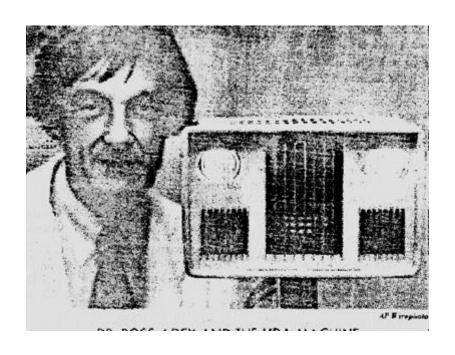
Here is another published in 1975. http://www.magdahavas.com/wordpress/wp-content/uploads/2011/02/BIOLOGICAL\_EFFECTS\_OF\_ELECTROMAGNETIC\_RADIATION-RADIOWAVES\_AND\_MICROWAVES-EURASIAN\_COMMUNIST\_COUNTRIES.pdf

A further scientific report in 1976, by the US Defence Intelligence Agency, noted that:

"Personnel (military) exposed to microwave radiation below thermal levels experience more neurological, cardiovascular, and haemodynamic disturbances than do their unexposed counterparts" (page 6). "Subjects (military personnel) exposed to microwave exhibited a variety of neurasthenic disorders against a background of angiodystonia (abnormal changes in the tonicity of the blood vessels). The most common subjective complaints were headache, fatigue, perspiring, dizziness, menstrual disorders, irritability, agitation, tension, drowsiness, sleeplessness, depression, anxiety, forgetfulness and lack of concentration" (page 8).

The question might be asked, if all this was known 40 years ago, why were not stricter safety standards imposed when microwave technologies were released to the public?

#### The Battle for Your Mind



The answer to the foregoing could be "because it is a weapon system hiding in plain sight."

Sections of official reports like the following one lend credence to such theories. ftp://

ftp.ict.usc.edu/arizzo/PTSD%20materials/

Various%20Govt%20Reports%20on%20PTSD/

NAS%20Opprtunities\_in\_Neuroscience\_for\_Future\_Army\_Applications\_12500.pdf

This doctoral thesis examines the ethical dynamics in the US relative to non-consensual radiological experimentation upon the public. It is indicative of the degree to which trusted institutions can become corrupted by self-interest, and fail in their duty of care. http://media.proquest.com/media/pq/classic/doc/2708892501/fmt/ai/rep/NPDF?
\_s=fUPG5RHisKjfQLc%2FSvaEVT9A31U%3D

Western scrutiny of the psychological effects of microwaves was sparked by capture, during the Korean War, of the Soviet-made LIDA machine. It emitted microwaves pulsed at low frequency, and was utilized to interrogate and brainwash captured soldiers by producing a disoriented and suggestible state of mind. The device was thoroughly investigated by Dr. Ross Adey of the Loma Linda University. He subsequently produced this seminal paper. Electromagnetic Fields: The Modulation of Brain Tissue Function. Since then, a succession of peer-reviewed

studies confirm that even low level microwaves can affect brain function. http://www.emrpolicy.org/science/forum/adey\_encneuro\_emfs.pdf

How Smart Phones Keep You Awake. https://www.youtube.com/watch?v=mnDfPpUC\_jg&list=UUdJ9oJ2GUF8Vmb-G63ldGWq

http://www.theatlantic.com/health/archive/ 2015/02/how-smartphones-are-ruining-oursleep/385792/

Smart phones are almost perfectly designed to disrupt sleep. Using Your Smart Phone Before Bed Can Cause Cell Phone "Hangover". http://time.com/2118/were-all-doomed-using-your-smartphone-before-bed-can-cause-cellphone-hangover/?iid=time\_speed

The Effect of Mobile Phone Electromagnetic
Fields on the Alpha Rhythm of Human
Electroencephalogram. http://www.avaate.org/
IMG/pdf/electroencefalograma\_20352\_ftp.pdf
The Association Between Use of Mobile Phones
After Lights Out and Sleep Disturbances Among
Japanese Adolescents. http://
www.ncbi.nlm.nih.gov/pubmed/21804663
Pulsed Radio-frequency Electromagnetic Fields:
Dose-Dependent Effects on Sleep, the Sleep
EEG and Cognitive Performance. http://
www.ncbi.nlm.nih.gov/pubmed/17716273

Sleep EEG Alterations: Effects of Different Pulse-modulated Radio Frequency Electromagnetic Fields. http://onlinelibrary.wiley.com/doi/10.1111/j. 1365-2869.2011.00918.x/pdf



See the Appendix at the end of this newsletter for additional research papers on this topic. These effects are well known by "insiders", yet not widely publicized. One of our contacts advised that pulsed microwave devices, known as "poppers", were planted behind enemy lines during the Iraq War to impair sleep and mental alertness. Maybe they should have just given them free mobile phones.

Russians Have Psychotronic Weapon to Zombie People. http://english.pravda.ru/science/tech/14-08-2007/95965-psychotronic\_weapon-0/

"This potential is the technical capability to influence directly the major portion of the

approximately six billion brains of the human species through classical sensory modalities by generating neural information within a physical medium within which all members of the species are immersed." No More Secrets. Dr. Michael Persinger. https://www.youtube.com/watch?v=9l6VPpDublg

Can exposure of the brain to certain forms of EMR impair moral judgement? Disruption of the Right Temporoparietal Junction with Transcranial Magnetic Stimulation Reduces the Role of Beliefs in Moral Judgments. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872442/pdf/pnas.200914826.pdf

Remote Control of Brain Activity Using
Ultrasound. Put it in a helmet to "help" soldiers
cope in battle. http://science.dodlive.mil/
2010/09/01/remote-control-of-brain-activityusing-ultrasound/

Suffice to say, there exists a worldwide billion dollar race to get these technologies into the field, and you may be part of the experiment. Unconventional Research in USSR and Russia: A Short Overview. http://arxiv.org/pdf/1312.1148v2.pdf

### **Taking the Initiative**



Simple product to keep the phone the recommended distance away from the head.

Here is an excerpt from the Statement on Mobile Phones for Conference on Cell Phones and Health (2009), European Environmental Agency. "For governments, the mobile phone industry, and the public to take all reasonable measures to reduce exposures to EMF, especially to radio frequencies from mobile phones, and particularly the exposures to children and young adults who seem to be most at risk from head tumours. Such measures would include stopping the use of a mobile phone by placing it next to the brain. This can be achieved by the use of texting; hands free sets; and by the use of phones of an improved design which could generate less radiation and make it convenient to use hands free sets."

http://www.emrpolicy.org/files/ 15sep09\_mcglade\_statement.pdf

There is a growing legion of scientists, doctors, politicians, and informed members of the public who are petitioning authorities for both public education and more stringent EMR safety standards. But there is no need to keep waiting

for a meaningful response. Here are a number of possible solutions that individuals can initiate themselves, subject to first obtaining professional advice.

Download phone and Wi-Fi coverage maps (current and planned) of your area and relocate to a place less affected.

Install metal foil or sheeting to reflect RF from external sources. Important: use an EMR meter to confirm results.

Let the inverse square law work for you.

Maintain maximum safe and effective distance
from wireless devices, i.e. keep the "laptop" off
the lap.

Use your mobile phone in speaker mode and hold it away from the head. Try a "Cell Spacer". https://greenswan.org/cell-spacer/

Read and observe the precautionary health warnings included in most wireless product instruction manuals.

Move sitting and sleeping arrangements away from walls adjacent to major electrical appliances or meter boxes.

Purchase an air-tube headset. Wired ear phones can act as an antenna and increase absorption.

Certain phones are known to have a low SAR due to their proprietary design features. One

example is the early model Samsung Galaxies.

Replace cordless phones with a Siemens (Gigaset) "Eco-DECT" that can be set to transmit only when a call is in progress. http://lessradiation.co.uk/low-radiation-eco-dect-digital-cordless-phones/

Research the ability of anti-oxidants to counteract free radical formation caused by exposure to electropollution.

Think twice about any wearable wireless technology such as headsets, biometric monitors and fitness bands.

Text or Skype when possible.

Try to avoid making calls when reception is poor, in enclosed metal spaces (like cars or buses), or while moving around.

Lessen absorption by holding the headset on its lower edge with the fingertips.

Demand clearer consumer warnings and public education on all wireless products.

Exercise special precautions with children. Instruct in safe practice. Limit time of use to encourage rounded development.

Purchase an EMR meter so you can monitor, compare, and document exposure levels in your home or workplace.

Walk barefoot on natural ground, shower or take a swim to draw off accumulated electrical charge from your body. Exercise outdoors.

Take periodic trips away from population centres, so your body can "recollect" its natural state.

Prefer cable connections on computer peripherals and Wi-Fi devices. Remember to disable, in software, the router/transmitter in BOTH your computer and external device.

Avoid lamp dimmer switches and compact fluorescent lamps. These can feed "dirty electricity" spikes into home wiring.

Prompt industry to adopt safer technology, such as LED-based Li-Fi or dispersed networks of low power transmitters.

Do not fall prey to "New Age" gadgets, stickers, organite, etc. that claim to protect you from EMR. Take genuine precautions.

For additional ideas, see the following page, which includes a brochure you can print out. http://www.emraware.com/reducing\_emr.html

## **Stimulating Change**

Anyone who has complained by phone, email or letter about EMR health impacts would have

probably received the same canned reply, "we operate within existing safety regulations" Of course they do. Exposure limits in Australia are pegged at the high end of the international scale. Among other things, this enables reference to comforting margins of safety with regard to any specific radiation source. Your heartfelt pleas will only fall upon the ears of someone whose employment prospects consist of bouncing back and forth between complicit industry and government sectors. At present, this system is resistant to accountability and external pressure for reform. Perhaps it is time to try a different approach. Here are two complementary options, offered subject to the reader obtaining legal advice prior to acting upon them.

#### 1. Public Opinion

The most obvious and accessible point of leverage is public sentiment. The industry foothold on this is increasingly tentative and destined to progressively recede in a way similar to tobacco. Even if one person in each community educated themselves on the science, and then spread this knowledge in the form of letters to the paper, posters and meetings, there would be an unstoppable ripple effect. Informed consumers would adopt safer usage habits and demand low emission technology. Essentially, you begin what industry

and government could be doing themselves as a duty of care. They will eventually jump on-board, if only to save face, credibility, market share, legal indemnity, or votes. Don't freak out, speak out.

#### 2. Duty of Care

Once a natural person becomes aware of an imminent danger or crime, they may have a duty of care under law to act upon this knowledge. This principle applies equally to individuals in business or government. If anyone disagrees, remind them what happened with asbestos, which was also a safe haven of profitability until it was ruled by the courts that someone knew better and should have acted accordingly.

Consider sending your favourite CEO's a registered post envelope containing both a Notice of Request to exercise said duty, and selection of peer-reviewed scientific studies, or exact references to same. The intent is to help inform them (serve notice) of adverse biological effects attributed to the type of EMR they are utilizing, or sanctioning as "safe". Having been thus foretold, they may recognise their personal liability for subsequent harm or injury caused by negligence or willful avoidance. This is particularly relevant to Common Law countries such as the UK, USA and Australia. Ask the recipient politely if they are willing to discuss

with you more stringent policies. This is a process of negotiation in good faith and "without prejudice"; not intimidation, threat or vexatious action.

- a) Sample draft copy Notice of Request to responsible person. http://www.emraware.com/notice\_request\_draft.docx
- b) List of supportive scientific documents to print out and include, compliments of Steve Weller. Or substitute your own, ensuring they are peer-reviewed studies from accredited journals, not editorial articles, etc. To read the papers or abstracts in their original form, cut and paste the titles into your browser. http://www.emraware.com/rf\_research.docx
- c) Below are the postal addresses of several organisations prominant in the EMR field. Find the names of their current CEO's and post Notices acordingly.

ARPANSA
3-5 National Circuit
Barton ACT 2600

NBN Co. Level 11 100 Arthur Street North Sydney NSW 2060

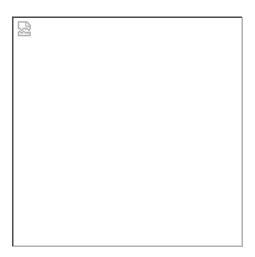
Visionstream Locked Bag 3

Bentleigh East VIC 3165

Essential Energy (Northern Rivers)
PO Box 5730
Port Macquarie NSW 2444

Telstra Locked Bag 5639 Melbourne VIC 3001

### **Free Information**



An educational DVD, compiled and regularly updated by our volunteers, is available to anyone free of charge. It contains thousands of documents, both scientific and editorial, on the biological and health impacts of all types of EMR. This is the resource you need to counter incomplete or misleading safety claims by industry reps. For further information or technical support on related topics, email us at: contact@emraware.com.

The following page of our website contains

similar reading material in the form of bookmarked external web pages. These are arranged by category for convenience. http:// www.emraware.com/emr\_links.html

Beginning this issue, we have added to our website a comprehensive list of EMR advocacy and support organisations. http://www.emraware.com/organisations.html

Please note, we request that our published materials not be sold or used to promote commercial products.

# Appendix - Microwaves and Brainwaves

To view the relevant paper, cut and paste each title into your browser.

Lustenberger C et al. (2013): Stimulation of the brain with radiofrequency electromagnetic field pulses...

Loughran SP et al. (2013): No increased sensitivity in brain activity of adolescents exposed to mobile...

Perentos N et al. (2013): The alpha band of the resting electroencephalogram under pulsed and continuous...

Smitha CK et al. (2013): Effect of Mobile Phone Radiation on EEG.

Croft RJ et al. (2010): Effects of 2G and 3G mobile phones on human alpha rhythms: Resting EEG in...

Vecchio F et al. (2010): Mobile phone emission modulates inter-hemispheric functional coupling of EEG...

Suhhova A et al. (2009): Effect of modulated microwave radiation on human EEG asymmetry. Cook CM et al. (2009): Changes in human EEG alpha activity following exposure to two different pulsed...

Kleinlogel H et al. (2008): Effects of weak mobile phone - electromagnetic fields (GSM, UMTS) on well-being...

Hinrikus H et al. (2008): Effect of low frequency modulated microwave exposure on human EEG: Individual...

Hinrikus H et al. (2008): Effect of 7, 14 and 21 Hz modulated 450 MHz microwave radiation on human...

Perentos N et al. (2008): The effect of GSM-like ELF radiation on the alpha band of the human resting...

Regel SJ et al. (2007): Pulsed radio frequency radiation affects cognitive performance and the waking...

Bardasano JL et al. (2007): EEG bioeffects on cochlear deaf from cellular phones.

Perentos N et al. (2007): Comparison of the effects of continuous and pulsed mobile phone like RF...

Leitgeb N (2007): Untersuchung der

Schlafqualitt bei elektrosensiblen Anwohnern von...

Vecchio F et al. (2007): Mobile phone emission modulates interhemispheric functional coupling of EEG...

Krause CM et al. (2007): Effects of pulsed and continuous wave 902 MHz mobile phone exposure on brain...

Maby E et al. (2006): Short-term effects of GSM mobiles phones on spectral components of the human...

Ferreri F et al. (2006): Mobile phone emissions and human brain excitability.

Maby E et al. (2006): Scalp localization of human auditory cortical activity modified by GSM...

Hamblin DL et al. (2006): The sensitivity of human event-related potentials and reaction time to mobile...

Hinrikus H et al. (2005): Non-Thermal Effect of Microwave Radiation on Human Brain Bachmann M et al. (2005): Effect of 450 MHz Microwave Modulated with 217 Hz on Human EEG in Rest

Curcio G et al. (2005): Is the brain influenced by a phone call? An EEG study of resting wakefulness.

Hinrikus H et al. (2004): Changes in human EEG caused by low level modulated microwave stimulation.

Krause CM et al. (2004): Effects of electromagnetic field emitted by cellular phones

on the EEG during...

D'Costa H et al. (2003): Human brain wave activity during exposure to radiofrequency field emissions...

Croft RJ et al. (2002): Acute mobile phone operation affects neural function in humans. Huber R et al. (2002): Electromagnetic fields, such as those from mobile phones, alter regional...

Hamblin DL et al. (2002): Effects of mobile phone emissions on human brain activity and sleep variables.

de Seze R et al. (2001): Evaluation of the Health Impact of the Radio-Frequency Fields from Mobile...

Hietanen M et al. (2000): Human brain activity during exposure to radiofrequency fields emitted by...

Roschke J et al. (1997): No short-term effects of digital mobile radio telephone on the awake human...

Reiser H et al. (1995): The influence of electromagnetic fields on human brain activity



## © Copyright 2014-2018 EMR Aware. All Rights reserved.