<http://www.c4st.org/news/news-updates/federal-wi-fi-safety-report-is-deeply-flawed-say-experts-2.html>

Please see also: <http://www.c4st.org/break-silence>

Federal Wi-Fi Safety Report is Deeply Flawed, Say Experts

*Posted in* [*News Updates*](http://www.c4st.org/news/news-updates.html)*,* [*What's Happening in Canada?*](http://www.c4st.org/news/category/what-s-happening-in-canada/) *Written by Canadian Medical Association Journal*



A new review of Health Canada's safety standards for radiofrequency devices, including Wi-Fi and cellphones, is deeply flawed due to the authors' conflicts of interest and lack of expertise, say two scientists. The Royal Society of Canada's (RSC) Expert Panel Report on the Review of Safety Code 6: Potential Health Risks of Radiofrequency Fields endorses current safety standards while calling for more research. The RSC invited the two scientists to peer review the report.

The RSC's eight-member panel "actively blinded themselves to vital evidence," says Martin Blank, an expert on the effects of electromagnetic radiation and special lecturer at the Columbia University Medical Center in New York City. "The panel's position on maintaining the current standards is so fixed that it leads them to conclusions one would never expect from policy officials in the field of health," Blank added in an interview. "I am almost certain that the reluctance of the panel to be guided by biological evidence reflects a lack of expertise in cell biology."

Dr. Anthony B. Miller, professor emeritus at the University of Toronto's Dalla Lana School of Public Health, was likewise critical. The panel included members with "major links to the telecommunications industry," says Miller. "This is a conflicted panel, with insufficient expertise in epidemiology. It ignored recent evidence that wireless radiation is a probable carcinogen."

Miller flagged concerns about the panel last summer after a CMAJ article revealed that the RSC panel's original chair, Daniel Krewski, failed to disclose to the society that he had received a $126 000 contract in 2008–2009 from Industry Canada. Krewski was replaced as panel chair.

Amidst concerns about links between the telecommunication industry and John Moulder, professor and director of radiation biology at the Medical College of Wisconsin, in Milwaukee, Wisconsin, two members of the original panel stepped down and were also replaced. Moulder remained on the panel.

These changes to the panel remained unsatisfactory, says Miller. "It is unfortunate that the Royal Society failed to amend the membership of the panel as requested by some of us."

After reviewing the panel's final report, Miller and Blank now say that the RSC, which was paid $100 000 by Health Canada to establish the review panel, failed in its obligation to the public.

"This is actually a failure of the panel to fulfil its primary function — to protect the health of the population," says Blank. "This failure is occurring in an environment with increasing exposure to a wide range of non-ionizing EMF [electromagnetic frequencies], including ELF [extremely low-frequency]. To do the job right, the panel should be reconstituted to include members having the expertise needed to evaluate the biological research and to formulate safety standards that take into account the biological indicators of EMF danger levels."

Instead of outsourcing the safety review to the RSC, which is not subject to government accountability and transparency rules, Miller suggests Health Canada should conduct the safety review internally, using traditional expert advisory panel review procedures which are far more accountable. "That is a process that is far better."

Frank Clegg, CEO of Canadians for Safe Technology (C4ST), an Oakville, Ontario-based advocacy group that campaigns against the dangers of exposure to unsafe levels of wireless radiation from technology, says the RSC's panel was "an expensive exercise that was corrupted by industry and so is a waste of taxpayer dollars."

Russel MacDonald, officer on expert panels at the RSC in Ottawa, Ont., did not respond to an interview request.

Sarah Lauer, a media officer with Health Canada, says the department is reviewing the panel's April 1 report and "will consider the RSC's recommendations, as well as all feedback received during the upcoming public consultation on Safety Code 6." The revised Code is expected to be published in the fall of 2014. The RSC, she added, "notes that there are no established adverse health effects at exposure levels below the proposed limits.

[Original Article on the Canadian Medial Association Journal](http://www.cmaj.ca/site/earlyreleases/16april14_federal-Wi-Fi-safety-report-is-deeply-flawed-say-experts.xhtml)

<http://www.c4st.org/news/what-s-happening-in-canada/canada-lagging-behind-china-and-russia-safety-code-6-needs-to-be-updated-now.html>

# Canada lagging behind China and Russia:

# Safety Code 6 needs to be updated now

*Posted in* [*News Highlights*](http://www.c4st.org/news/news-highlights.html)*,* [*C4ST in the News*](http://www.c4st.org/news/category/c4st-in-the-news/)*,* [*What's Happening in Canada?*](http://www.c4st.org/news/category/what-s-happening-in-canada/) *Written by The Hill Times: Frank Clegg*



Many parents assume that if a wireless gadget is in the marketplace, it is safe for children. Unfortunately, that is not always the case. During the holiday season, I can only imagine how many children received a cell phone or tablet and how few families read the fine print; safety is not guaranteed and worse, Canada’s Safety Code 6 is an antiquated regulation that lags behind Russia and China. We must do better.

Industry Canada Minister James Moore’s recent announcement regarding improved notification of cell tower requests for towers less than 15 metres is a very important first step in improving the process to avoid the placement of cell towers where families can be harmed. This demonstrates that our government is listening.

Health Canada’s Minister Ambrose now has a tremendous opportunity to join countries such as Belgium, France and Israel and put Canada back on the map for protecting its citizens’ health.

Health Canada’s Safety Code 6 governs the safety of cell phones, cell towers, Wi-Fi, smart meters and all other devices that now permeate every Canadian home. It impacts all of us, every day, and should protect us. But Safety Code 6 has not been significantly updated since the 1970s, long before Wi-Fi was invented or cell phones were sold.

Smart phone manufacturers Apple, Motorola, and Cisco all publish warnings in their manuals saying their phones, pads and Wi-Fi devices emit radiation shown to cause cancer in lab animals and to avoid over-exposure by holding it away from your body, or to keep a safe distance from “the lower abdomen of a teenage girl.” Despite those stern warnings, the same companies are able to put such potentially harmful devices on store shelves in Canada. They are exercising a loophole in Health Canada’s archaic safety standards for microwave devices that hasn’t been updated in decades, since the first microwave, then the only emitting device in a Canadian home.

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Belgium and France have new laws that don’t allow manufacturers to market wireless devices to children because they are the most vulnerable. In Canada, we still force children in schools to be exposed to unmeasured levels of microwave radiation from cell phones and Wi-Fi.

The World Health Organization (WHO) has indicated that direct, long-term contact with wireless radiation is biologically harmful and can potentially have damaging health effects. In August 2011, shortly after the WHO classified radiofrequency radiation (the basis for all wireless devices) as possibly carcinogenic, Health Canada posted a warning that “encourages parents to reduce children’s radiofrequency radiation (RF) exposure from cell phones since children are typically more sensitive to a variety of environmental agents”. There hasn’t been any major progress since then. Canadians are left to read the foreign press to learn about the universal dangers of wireless radiation, if they want to protect their families.

Fortunately the sea is beginning to change across Canada with local governments rejecting Health Canada’s antiquated approach to this 21st century health crisis.  What we’ve witnessed in the last six months is much like the national movement that began in Quebec in the early 1990s. Municipalities had rejected the federal government’s promise that all regulated pesticides are safe, and began banning the use of weed spray in urban environments due to high cancer rates.

Municipalities once again are finding their strength in municipal law and proactively ensuring citizens are better protected.

On Dec. 16, 2013, the City of West Vancouver Council voted against a Rogers’ application to install three new cell towers along Upper Levels highway. On the same day, the City of Guelph Council passed a motion asking Industry Canada to place a moratorium on the approval of any new radio communication facilities until such time as the review of Safety Code 6 has been finalized. On Dec. 18, 2013, the City of Toronto Council required new Rogers cell towers to comply with Toronto’s Prudent Avoidance Policy which sets radiation levels 100 times safer than Health Canada’s Safety Code 6. Toronto also updated its protocol for cell towers less than 15 metres tall stating that “City Council encourage Health Canada to actively review health evidence, including the most recent scientific research and studies, related to human exposure to radiofrequencies and to revise Safety Code 6 to meet international best practices, in consultation with the public and appropriate experts.”  The towns of Thorold and Oakville, Ont. have already passed similar motions.

What Canada needs is a national approach that acknowledges what independent scientists have conclusively shown: There is no guarantee that children can be exposed to any amount of wireless radiation for any amount of time without a biological impact.

Many of the scientists sounding the alarm bell are the same individuals who warned us about acid rain, second-hand smoke, DDT, asbestos and other widespread public health disasters. As harmful as these banned agents are, none of them were more widespread in our homes than wireless radiation is now. Canada should enter the 21st century of health care—the age of prevention—and prevent another disaster by updating Safety Code 6.

*Frank Clegg has played a leadership role in the country’s technology sector and in the broader Canadian community for many years. Mr. Clegg, former Microsoft Canada president, is now the volunteer CEO of Canadians for Safe Technology (C4ST), a national, not-for-profit, volunteer-based coalition of parents, citizens and experts.* news@hilltimes.com The Hill Times

**SUBVERSION OF SCIENCE: ROYAL SOCIETY OF CANADA PANEL WITH CONFLICT OF INTEREST TO REVIEW SAFETY CODE 6!**

<http://www.magdahavas.com/subversion-of-science-royal-society-of-canada-panel-with-conflict-of-interest-to-review-safety-code-6/>

June 18, 2013.  Finally a medical authority reveals what goes on behind closed doors!

Paul Christopher Webster wrote an [article](http://www.cmaj.ca/site/earlyreleases/18june13_federal_wi-fi_panel_criticized_for_undisclosed_conflict.xhtml) for the  Canadian Medical Association Journal (CMAJ) revealing conflict of interest for one member of the Royal Society of Canada (RSC) panel asked to review Health Canada’s Safety Code 6.  This story was also covered by  [The Star](http://www.thestar.com/business/2013/06/18/cellphones_and_health_panel_chair_accused_of_conflict.html) and [Sun Media](http://blogs.canoe.ca/eyeonthehill/general/federal-wireless-research-panel-criticized-for-undisclosed-conflict/).

*Daniel Krewski who is Professor in the Faculty of Medicine, University of Ottawa, Ontario and Director of the R. Samuel McLaughlin Centre, failed to disclose to the society that he had a $126 000 contract in 2008–2009 from Industry Canada. According to the*[*Merx public tender document*](http://www.merx.com/English/supplier_menu.asp?WCE=Show&TAB=1&PORTAL=MERX&State=7&id=161051&FED_ONLY=0&hcode=cG7aiTXYNXDrY4Sa%2FSDKmw%3D%3D)*, Krewski’s contract was to ‘assist in addressing what the Department believes is opposition often based on misperception and misinformation’ with respect to cellphone antennas.*

Krewski appears in a Health Canada [video](http://www.hc-sc.gc.ca/ahc-asc/media/video/wifi-eng.php) where he downplays the potentially harmful effects of Wi-Fi in schools.  In this video Krewski states: *“Of the literally thousands of papers that have been written on this topic, very few have suggested health concerns and all of that information needs to be taken into account when reaching an overall conclusion.”*

Click [here](http://www.kqed.org/a/forum/R201006140900) for a debate on*Cell Phone Safety* with Krewski on KQED Radio.

There seems to be an incestuous relationship between Health Canada and Krewski.  One way to get the outcome you want is to ask the same people you hire to provide good PR to also review Safety Code 6.

Let’s examine the history of the Royal Society Reviews for Health Canada and is Krewski the only one we should be concerned about or is he the tip of the iceberg?

**1st** [**Royal Society Review–Health Canada’s Safety Code 6 (1999)**](http://rsc-src.ca/en/expert-panels/rsc-reports/review-potential-health-risks-radiofrequency-fields-from-wireless)

Krewski served on the original RSC panel that released its report on Health Canada’s Safety Code 6 in 1999.  In that document, the Royal Society acknowledged the possibility of non-thermal effects beyond contact current and shock (the only non-thermal effects considered by Health Canada and only for frequencies below 110 MHz) but did not recommend lowering SC 6 at that time until more research was conducted.   The Royal Society report also stated that existing guidelines were inadequate to protect parts of the body, especially the eyes and they recommended changes for this part of the guideline.  *Health Canada made NO changes to SC6.*

**2nd** [**Royal Society of Canada Review–RF literature (2005)**](http://www.ncbi.nlm.nih.gov/pubmed/17620203)

In 2005, Dr. Krewski–as lead author–updated the 1999 Royal Society Report for the years 2001–2003.   The conclusions in that document are as follows:

*All of the authoritative reviews completed within the last 2 yr have concluded that there is no clear evidence of adverse health effects associated with RF fields from mobile phones.  The British Medical Association (2001), for example, concluded that “whilst there are small physiological effects within the existing guidelines, there are no definite adverse health effects from mobile phones or their base stations.” At the same time, these same reviews support the need for further research to clarify the possible associations between RF fields and adverse****health outcomes****that have appeared in some reports, including possible associations with brain cancer (Hardell et al., 2002a, 2002b, 2003a, 2003b; Kundi et al., 2004). Research on the biological effects of low-level RF fields (including modulated signals), such as alteration of enzyme activity and transport of ions across cellular membranes, is also encouraged.*

Be wary of wiggle words, highlighted in red above.  These are words used to mislead, downplay, divert from the real meaning intended in scientific studies.

Translation:

1.  ***authoritative*** *reviews*:  groups who think like us

2.  *no****clear****evidence of adverse health effects*:  there is evidence of adverse health effects

3. *while there are****small****physiological effects*:  there are physiological effects

3.  *no****definite****adverse health effects:*  there are adverse health effects

4.  *need for further research*:  delay tactic
There is always a need for more research to better understand something.  The real question is do we have enough of an understanding to change policy?

5.  ***possible*** *associations between RF fields and adverse health outcomes*:  there are associations between RF fields and adverse health outcomes

 What the above paragraph states is the following:  There are physiological effects below existing RF guidelines.  There are adverse health effects, especially brain tumors,  associated with RF fields from mobile phones. Specific research is needed on biological effects at low levels (below existing guidelines) especially on enzyme activity and transport mechanisms.  NOTE: Health Canada does not conduct research below the thermal guidelines for RF frequencies according to their senior scientists, James McNamee.  If you don’t look . . . you can’t find.

**3rd Royal Society of Canada Review– Safety Code 6 (2013)**

Health Canada’s Safety Code 6 is normally reviewed every 10 years.  Health Canada decided to conduct an earlier review.  This makes sense.  Recently (2011)  the International Agency for Research on Cancer (IARC) and the World Health Organization (WHO) classified radio frequency electromagnetic fields as a possible human carcinogen.  In addition to cancer, studies show that  radio frequency radiation (RFR) affects sperm; and contributes to electrohypersensitivity (EHS).  A growing number of educational and activist web sites combined with media coverage are contributing to greater public awareness of this issue so it was a wise move for Health Canada to conduct an early review of Safety Code 6.

Health Canada needs to be reassured that their guidelines are sufficient to protect public health and they could not have picked a better group of people to give them that assurance.

Members of the Royal Society panel selected to review Safety Code 6 are available [here](https://rsc-src.ca/en/expert-panels/rsc-reports/review-safety-code-6-potential-health-risks-radiofrequency-fields-from#overlay-context=en/expert-panels/rsc-reports/status-and-future-canadas-libraries-and-archives).   They include:

Dr. Daniel Krewski, Chair (University of Ottawa)

Dr. Brian Christie (University of Victoria)

Dr. Richard Findlay (EMFcomp, UK)

Dr. Kenneth Foster (University of Pennsylvania)

Dr. Louise Lemyre (University of Ottawa)

Dr. John Moulder (Medical College of Wisconsin)

Dr. Frank Prato (Western University)

Dr. Rianne Stam (National Institute for Public Health and the Environment,
Bilthoven, the Netherlands)

**Daniel Krewski:**The expose speaks for itself.

**Brian Christie** does not published in this field so why was he selected for this panel?

**Richard Findlay** is a computational physicist who worked for the *Health Protection Agency* (HPA) and the *National Radiological Protection Board (NRPB) in the UK*.   The UK had the worst radio frequency standards in the world.  They are now in line with ICNIRP but are still too high to protect public health.

The view of Public Health England (Health Protection Agency link) on [Wi-Fi in schools](http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/UnderstandingRadiationTopics/ElectromagneticFields/WiFi/), [smart meters](http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/UnderstandingRadiationTopics/ElectromagneticFields/SmartMeters/) and  [cordless telephones](http://www.hpa.org.uk/web/HPAweb%26HPAwebStandard/HPAweb_C/1195733767519) is as follows:

*• There is no consistent evidence to date that exposure to radio signals from Wi-Fi and WLANs adversely affects the health of the general population.*

*• The evidence to date suggests exposures to the radio waves produced by smart meters do not pose a risk to health.*

*• Cordless phones and their base stations have output powers much too low for exposures to exceed internationally accepted guidelines and HPA does not consider there are particular safety issues with their use.*

**Kenneth Foster:**Published a commentary (Microwaves:  the risks of risk research) in the British Scientific Journal Nature (1987, volume 330) calling for an end to research that examines the risks of microwave radiation.  Clearly, according to Foster, we knew as much as we needed to know about the risks of microwave radiation back in 1987!

**Louise Lemyre** is McLaughlin Research Chair on Psychosocial Aspects of Risk on Population Health.  She frequently publishes with Krewski. His name appears 66 times related to her[research and publications](http://www.iph.uottawa.ca/eng/about/lemyre.html).   Someone needs to ask if any of her research is funded by the wireless industry and, if it is, why this conflict of interest is tolerated.

Why has RSC appointed two members to this panel who work together on a regular basis from the same university (University of Ottawa) and the same institute (*R. Samuel McLaughlin Centre)*?  Surely there are others who do research in this field who would be as, if not more, appropriate.

Why does this panel have a psychologist but not an epidemiologist?  Is the aim to designate electrohyersensitivity as a psychological disorder rather than a bonafide physiological response to radio frequency radiation?

**John Moulder** has had a lucrative career in consulting for industry. According to his [CV](http://www.mcw.edu/FileLibrary/Groups/RadiationOncology/documents/MoulderCV2009.pdf) Moulder has been a consultant for Minnesota Power Company, Wisconsin Public Service Corporation, Bermuda Digital Communications, Australian Mobile Telecommunications Association to name a few.

Moulder is also a Senior Editor of *Radiation Research*, a journal known to publish primarily studies that show no harmful effects of non-ionizing radiation.  Microwave News provides an [expose](http://microwavenews.com/RR.html) on this journal and on Moulder that is worth reading.

**Frank Prato** does MRI and PET imaging so he is not going to say anything that would indicate this technology may be harmful to some people.  He was a panel member in the previous two reviews by the Royal Society of Canada on Radio frequency radiation.  He testified to the [Parliamentary Health Committee in 2010 (HESA)](http://www.parl.gc.ca/content/hoc/Committee/403/HESA/Evidence/EV4738168/HESAEV34-E.PDF) that there is no need to remove Wi-Fi in schools simply because children and parents are complaining of symptoms of microwave radiation, because they are also exposed in other places.

I am unfamiliar with **Rianne Stam** so I looked her up.  One of her recent [papers](http://www.ncbi.nlm.nih.gov/pubmed/20550949) is on the effects of electromagnetic fields on the blood-brain barrier.

This is what she states in her abstract: *Exposure to levels of radiofrequency electromagnetic fields (EMF) that increase brain temperature by more than 1°C can reversibly increase the permeability of the BBB for macromolecules.*  I agree with this statement.

Then she goes on to state:  *The balance of experimental evidence does not support an effect of ‘non-thermal’ radiofrequency fields with microwave and mobile phone frequencies on BBB permeability . . . The literature on effects of low frequency EMF, which do not cause tissue heating, is sparse and does not yet permit any conclusions on permeability changes . . . Studies on the potential effect of EMF exposure on permeability of the BBB in humans are virtually absent.*

Obviously she is unfamiliar with the work of Oscar and Hawkins (1977); Salford et al. 1992;  Persson et al.  1997; and Schirmacher et al. 2000.

The Royal Society did not do their homework when selecting this group for their expert panel to review Safety Code 6.  Removing Krewski as the Chair is insufficient to convert this into a legitimate, unbiased, expert panel at arm’s length from both Health Canada and the wireless industry to review Safety Code 6.

The honorable thing to do is for the RSC to go back to the drawing board and select members from the international scientific and medical community, who publish in this field,  are not funded by the wireless industry, and  present a diverse mix of expertise and opinion related to this topic.  In other words, RSC should follow its own [guidelines](http://rsc-src.ca/sites/default/files/pdf/ExpertPanel_ManualofProceduralGuidelines.pdf) on what constitutes an expert panel.

If this is not done, the outcome of this review is obvious since the one thing panel members have in common is that they don’t believe this radiation is harmful as long as it is below Safety Code 6.

For more information visit Citizens 4 Safe Technology at www.c4st.org

**Addendum:**

I was alerted to the fact that **Kenneth Foster** did a study on Wi-Fi exposure that was supported by the WiFi Alliance  (Foster KR, [Radiofrequency exposure from wireless LANs utilizing Wi-Fi technology](http://www.medfordumc.org/celltower/wifirfexposure.pdf). Health Phys. 92:280-9, 2007). See [FAQ:  WiFi and Health](http://www.wi-fi.org/files/wfa_wi-fi_health_faq.pdf).

Interesting that this FAQ document references the Health Protection Agency (HPA) that **Richard Findlay** worked for to address the question, “Can Wi-Fi technology be used safely in schools?”

The Foster study, referenced above, showed that levels of radiation from Wi-Fi are below international guidelines.  This is NOT news nor is this the issue.  The issue is whether it is sensible, logical, wise to expose children for 6 hours daily in school to microwave radiation that has been associated with cancer, reproductive problems, and symptoms of electrohypersensitivity when we know that children are more vulnerable than adults to environmental toxins.   The International Guidelines for microwave radiation (same guidelines as in Canada and the U.S.) are based ONLY on HEATING and NOT on BIOLOGICAL CHANGES and potential HEALTH EFFECTS! There are no International Guidelines to protect the public against anything other than heating!  Determining whether or not levels of radiation exceed International Guidelines is a red herring as it is diverting attention away from the main issue.  It provides a sense of false security for those unfamiliar with the research in this area.

Who and what is the WiFi Alliance and how is it funded?

The [Wifi Alliance](http://www.wi-fi.org/about/organization) is a “global non-profit organization with the goal of driving adoption of high-speed wireless local area networking.”

[Follow the money](http://www.wi-fi.org/about/member-companies/sponsor).  WiFi Alliance is sponsored by T-mobile, Texas Instruments, Sony, Samsung, Qualcomm, Nokia, Motorola, Microsoft, LG, Intel, Huawei, Dell, Comcast, Cisco, Broadcom, and Apple.

Is this the organization you would trust to give you unbiased information about the safety of Wi-Fi?