

Prevent Cancer Now News and Opportunities

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Recognizing Excellence in Cancer Prevention

In their communities, at work and on the forefront of science in the international sphere, many Canadians are working for a healthier world, and to prevent cancer. Considering many worthy candidates for Cancer Prevention Awards is truly inspiring. The Awards shine recognition, thanks and hopefully provide a boost to important, long-term efforts by remarkable Canadians. For the first time, *Prevent Cancer Now* also recognized a group.

The <u>Halifax Project</u> (subtitled "Rethinking Cancer") is the recipient of the *Group Cancer Prevention Award - 2015*. Leaders Michael Gilbertson and Leroy Lowe are convinced that better understanding the features or "Hallmarks" of the development of cancer, is key to both prevention, and better treatments. This <u>approach has underlain *Prevent Cancer Now*</u> from its inception.

The vision, "Getting to Know Cancer" was launched in <u>Halifax</u> in 2013, and was embraced by hundreds of prominent scientists around the globe. With extraordinary scientific leadership and wisdom, Lowe and Gilbertson are reframing cancer.

To start, the <u>Hallmarks of Cancer</u> (e.g. inflammation, genomic instability, uncontrolled growth, etc.) were scoped, and teams were formed to examine the Hallmarks from the point of view of contributors to the development of cancer, and beneficial exposures (primarily diet) that may prevent occurrence or progression, or even foster cure.

In 2015, the Halifax Project published two seminal series of peer-reviewed research papers by 350 researchers from 31 countries:

- Assessing the Carcinogenic Potential of Low-Dose Exposures to Chemical Mixtures in the Environment: The Challenge Ahead
- A Broad-Spectrum Integrative Design for Cancer Prevention and Therapy

This outstanding work is gaining attention in the U.S.

- The US National Institute of Environmental Health Science hosted a <u>symposium</u> featuring The Halifax Project.
- The Environmental Working Group hosted leaders from academia, government agencies and non-profit organizations in San Francisco for a workshop, Rethinking Chemicals and Cancer.
- The American Society of Clinical Oncology (ASCO) published <u>Low-Dose Chemical Exposure</u> and <u>Cancer</u> in June 2016.

As word of the Award spread among scientists, accolades poured in from around the world, expressing hopes that this work will translate into changes on the ground, in everyday lives. The Halifax Project makes clear that cancer prevention will not be achieved with today's single-chemical, proof of harm approaches. Cancer prevention hinges upon least-toxic approaches and best-practices in all endeavours.

Prevent Cancer Now is committed to this shift to least-toxic approaches in all decision-making – from individuals choosing dinner, to regulators approaching chemicals and radiation.

Individual Cancer Prevention Award recipients Ada Lockridge of the Aamjiwnaang First Nation by Sarnia, and Dave Renaud of Windsor are also being recognized for decades of astute services to their communities. Their work will be described in an upcoming newsletter.

Your Chance to Champion Cancer Prevention

- Call for Volunteers and Board Members -

In 2017, *Prevent Cancer Now* will be 10 years old! PCN at 10. Wow. How will we mark this occasion? You can be part of it.

Prevent Cancer Now has evolved from a small, dedicated team convinced that a majority of cancer can and should be prevented, to a national voice for cancer prevention with least-toxic approaches. We have gained scientific strength, to the point that we are conducting original research. Now our small team of Board Members needs to be fleshed out to improve effectiveness, and to cover multiple issues from coast to coast to coast. ... and of course to mark 10 years!

In the lead-up to the July Annual General Meeting, we are calling for volunteers, including for Board positions.

- -— Provincial/territorial representatives, so that PCN can help in *your* communities;
- Writers, editors, designers and communications experts;
- -— Topic enthusiasts/experts focused on toxicants (e.g. pesticides, agriculture and food, radiofrequency radiation, waste, pollution, chemicals in consumer products, water and air

determinants of health) your imagination is the limit!;
-— Legal and accounting expertise;
-— Fundraisers;
-— Event organizers;
-— Far from least, scientists and physicians to join our international collaboration of experts to ensure that our work remains firmly at the cutting edge of the most credible science.
Our friends at the charity Hills of Erin Cancer Prevention Foundation are also seeking help to raise money, to stop cancer before it starts.
Email Info@PreventCancerNow.ca indicating your interests, and for more information.

quality, fracking or bitumen extraction), or with a social focus (e.g. child health, diverse

Are Ontario Golf Courses Improving Pest Management?

You can help Prevent Cancer Now find out

- Citizen Scientists Needed for Data Entry -

Teens Can Earn Volunteer Hours!

Ontario's <u>Cosmetic Pesticides Ban Act</u>, 2008 restricts pesticides sales and use on lawns and gardens, but not golf courses. Before the <u>Act</u> was finalized, golf course representatives committed to using Integrated Pest Management (IPM) to reduce pesticide use. IPM includes cultural practices (choice of grasses, types and timing of fertilizer, mowing, aeration, etc.). To track pesticide use and progress, <u>annual reports from every golf course</u> are required to be posted online by the Integrated Pest Management Council of Canada. The point is to track progress in pesticide reductions, and to apply lessons learnt from this experience.

It is hard to know how pesticides reductions are progressing. Rather than putting data into a database, the golf course reports are online as pdfs, jpegs and other unhelpful formats. This is where YOU come in. Many hands make light work, so we need *lots* of help to put this data into a useful format. We have a simple online form to transfer numbers and text into a database, and University of Ottawa student Corrine Giorgetti is supplying enthusiastic expertise.

Preliminary analyses have identified some interesting trends, such as annual variability in pesticide usage, and shifts from older (quite toxic) insecticides to newer ones purported to be less toxic to non-insect life forms.

Topics we're investigating include:

- 1. Changes in quantities of pesticides;
- 2. Shifts in products being used (e.g. away from older to newer products that are advertised to be less toxic);
- 3. Strategies reported by golf courses as being helpful to control pests, or otherwise; and
- 4. Quality of data / reporting.

Of course, we should not have to enlist an army of volunteers to access and use this data. Thus, along with exploring pesticides reduction progress and lessons learned, as part of this project we will ask the IPM Council and the Ontario Ministry of Environment and Climate Change, going forward, to require golf courses to submit their data into a database. Generally, evidence-based decision-making requires data collection and storage in a useful format.

In the meantime, lets all dig into this data! If you have an hour or two to spare, or if you are looking for a worthwhile volunteering opportunity, please contact Info@PreventCancerNow.ca.

U.S. Government Study on Cell Phone-like Radiation

"Game-changing" or just another study?

More threads of evidence are aligning, suggesting that microwave, radiofrequency radiation (MW/RFR) causes cancer. The <u>first reports</u> are emerging from the U.S. National Toxicology Program (NTP), within the U.S. National Institutes of Health - a world leader in determining hazards and risks of environmental agents. This follows on <u>human studies</u> linking cell phone use to brain tumours and increasing incidence of these specific tumours in young Americans.

The latest piece of the puzzle is strong evidence of cancer in animal experiments. With \$25 million US, the NTP set out to test the assumption (hypothesis) underlying all regulation of radiation from wireless devices and networks. That is, that the only "established, adverse" biological effects of RFR are related to heating. Emission standards such as Canada's Safety Code 6 (SC6) are set to preclude more than 1 Celsius degree of heating. "We tested the hypothesis ... and that hypothesis is now disproved ..." stated Dr. Ron Melnick, former NTP director of special

programs, in a media briefing.

More details are available in an extended article online.

The NTP animal findings of increased gliomas (brain tumours) and schwannomas (tumours of the nerve sheath) in the heart are directly relevant, because the same tumours have been associated with heavy, long-term, and early initiation of long-term use of cell phones and cordless phones in humans. Gliomas were increased in a French study and follow-up analysis, as well as a large meta-analysis, both published after the International Agency for Research on Cancer panel determination that MW/RFR possibly causes cancer (2011). Acoustic neuromas – schwannomas of the acoustic nerve, linking the ear and the brain – also correlate with cell phone use in humans. Thus two tumours, with statistically significant exposure-related trends in rats, are also associated with cell phone use in humans.

Biological effects result not only from the continuous wave radiation, but significantly from the signal that actually carries information. Commonly used 2G and 3G modulations were examined by the NTP, but 4G and 5G technologies are on their way. New technologies emit lower average power, with savings in battery power, but the signals must still traverse thick walls and in fact the ratio of peak to average power is higher with modern modulations. Some researchers postulate that these rapidly changing fields may be more biologically potent, and state that MW/RFR technologies should undergo toxicity testing before being deployed.

Wireless technologies are truly changing our lives, but just as we no longer use X-ray machines in shoe stores, in the coming years we will have to choose appropriate applications and alternatives. Individuals, families, students, workers, government and

industry can take actions to reduce emissions and exposures. *Prevent Cancer Now* offers some tips to minimize your personal exposure to RFR.

<u>Environmental Health Trust</u> offers details, history and perspectives on the NTP RFR research program <u>here</u> and catalogues cautionary measures international measures to minimize exposures, particularly of the vulnerable <u>here</u>. <u>Canadians for Safe Technology</u> works to improve policies, scientific processes and regulation, and to reduce exposures to MW/RFR.

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Prevent Cancer Now is a Canadian national civil society organization including scientists, health professionals and citizens working to stop cancer before it starts, through research, education and advocacy to eliminate preventable causes of cancer.

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