



June 15, 2008

The Honourable John Gerretsen M.P.P.
Minister of the Environment
135 St. Clair Ave W, 15th Floor
Toronto ON
M4V 1P5

Dear Minister,

The Canadian Federation of University Women, Ontario Council, was pleased to be invited to submit to the Ontario Legislature Standing Committee on Social Policy re: Bill 64, the Cosmetic Pesticides Act.

The question of “science-based decisions” was raised, by industry representatives and by medical and municipal organizations. The use of the term “science” concerns CFUW.

This is an issue that CFUW has researched. We call your attention to CFUW policy of 2004, *Independence of Science and Industry*. (see Appendix A) The science is far from clear.

The following serious concerns have been raised:

- Pesticide laboratory test protocols use rats as predictors of human detoxification ability¹
- Pesticide laboratory test protocols test for single active ingredients, when in the real world there are multiple and combined exposures.^{2 3}
- Pesticide laboratory test protocols test for single active ingredients, where inert chemicals used in products may also be toxic⁴

The Health Canada PMRA pesticide review process has also raised serious concerns.^{5 6}

¹ Kerstin Lindblad-Toh, Genome sequencing: “Three’s company”, *Nature* 428, 475-476 (1 April 2004) | doi:10.1038/428475a, <http://www.nature.com/nature/journal/v428/n6982/full/428475a.html> (Accessed: June 14, 2008)

² Keith B. Tierney,[†] Jessica L. Sampson,[‡] Peter S. Ross,[‡] Mark A. Sekela,[§] and Christopher J. Kennedy, Salmon Olfaction is Impaired by an Environmentally Realistic Pesticide Mixture, *Environ. Sci. Technol.*, Article, 10.1021/es800240u, Web Release Date: June 4, 2008, <http://pubs.acs.org/cgi-bin/sample.cgi/esthaq/asap/html/es800240u.html> (Accessed: June 14, 2008)

³ Tyrone B. Hayes, Paola Case, Sarah Chui, Duc Chung, Cathryn Haeffele, Kelly Haston, Melissa Lee, Vien Phoung Mai, Youssra Marjua, John Parker, and Mable Tsui, Pesticide Mixtures, Endocrine Disruption, and Amphibian Declines: Are We Underestimating the Impact?, *Environmental Health Perspectives Volume 114, Number S-1, April 2006*, <http://www.ehponline.org/members/2006/8051/8051.html> (Accessed: June 14, 2008)

⁴ Caroline Cox and Michael Sorgan, Unidentified Inert Ingredients in Pesticides: Implications for Human and Environmental Health, Commentary, *Environmental Health Perspectives Volume 114, Number 12, December 2006*, <http://www.ehponline.org/members/2006/9374/9374.html> (Accessed: June 14, 2008)

Below are the recommendations of the CFUW Ontario Council with regard to Bill 64.

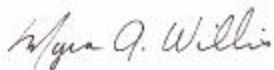
- The bill should prohibit use of non-essential pesticides, except as necessary for the promotion of public health or safety.
- **Delete 7.1 (2) 5. Exceptions: “Other prescribed uses” This is unacceptable.** This prohibition would not apply to uses related to agriculture, and forestry.
- Golf courses should be extended limited exception status for three years, by which time the exception would be terminated. **As in Section 12 of the *Smoke-Free Ontario Act*, where both municipal pesticide ban by-laws and the *Cosmetic Pesticides Ban Act* exist, the provision that is more restrictive of nonessential pesticide use and/or sale will prevail.**
- A mechanism must be stipulated in the act that will address future product evaluation.
- Public education with regard to alternative and proactive methods of lawn and garden care should be mandated within the Act.

The Ontario Council of the Canadian Federation of University Women welcomes any further questions and opportunities to participate in this very important issue and process.

Enclosed is the CFUW OC presentation to the Social Policy Standing Committee, which includes the recommendations and discussion of each recommendation. (www.cfuwontcouncil.ca/Bill%2064,%20Cosmetic%20Pesticides%20Ban%20Act,%20Presentation,%20June%209,%202008.pdf)

Ontario Council of the Canadian Federation of University Women is composed of fifty-nine (59) clubs comprised of graduates living in urban and rural areas across Ontario. We are non-partisan, non-sectarian and totally member funded. CFUW Ontario Council is part of the Canadian Federation of University Women and has links to the International Federation of University Women (IFUW).

Yours sincerely,



Myra Willis, President, Ontario Council
Canadian Federation of University Women

⁵ Johanne G elinas, Commissioner of the Environment and Sustainable Development, Office of the Auditor General, Managing the Safety and Accessibility of Pesticides, ([Chapter 1 - 2003 Report of the Commissioner of the Environment and Sustainable Development](#)), 28 October 2003, www.oag-bvg.gc.ca/internet/English/med_osh_20031028_e_23359.html (Accessed: June 14, 2008)

⁶ Kelly Patterson , CanWest News Service, Environmentalists baffled by pesticide-reviews process, Published: Saturday, May 12, 2007, <http://www.canada.com/topics/news/national/story.html?id=542f6607-a7e2-45dc-94b3-18aff4f63efd&k=1987&p=1> (Accessed: June 14, 2008)

cc. Hon. Dalton McGuinty, Premier of Ontario
Robert Runciman, MPP, Leader of the Opposition
John Tory, Leader, Ontario Progressive Conservatives
Howard Hampton, MPP, Leader, New Democratic Party Of Ontario
Peter Tabuns, MPP, Environment Critic, New Democratic Party of Ontario
Toby Barrett, MPP, Environment Critic, Ontario Progressive Conservatives

APPENDIX A

INDEPENDENCE OF SCIENCE AND INDUSTRY

CFUW, 2004

CFUW Legislation Committee | CFUW Status of Women and Human Rights Committee

RESOLVED, That the Canadian Federation of University Women call upon the federal, provincial and territorial Governments to ensure that:

1. There are clear guidelines for corporate funding of research at publicly funded university and government research facilities to ensure integrity in research; and
2. A sound funding base for independent research in universities.

RESOLVED, That the Canadian Federation of University Women call upon the federal, provincial and territorial Governments to fulfil their primary mandate to protect the public good through maintaining impartiality with regard to economic development of new products;

RESOLVED, That the Canadian Federation of University Women call upon the federal Government to maintain and enforce current laws which prevent direct to consumer advertising of prescription drugs.

BACKGROUND

Within our changing world, the ongoing development of the free market economy has formed the basis of profound social and political change, reflected in trade agreements, a globalized world economy, and the influence of industry in a wide range of arenas, including science.

In science, industry has increasingly become an integral partner of science research as a part of product development, from the genesis of the idea to the marketing of the product, gradually augmenting its stakeholder role. This role also has been enhanced by governments seeking to download increasing costs for education and research.

In Canada, as governments came under increasing pressure to reduce deficit budgets, a philosophy of public/private partnership (PPP) developed, giving rise to increasing influence of industries in areas as diverse as medicine, university funding, research grants, agriculture and genetically modified organisms, and pesticides (Robertson et al, 2003). In all of these areas, there have been serious questions raised about the conflicting goals of industry and science research (Lexchin et al, 2003) (Sanborn et al, 2004).

Medicine: In medical research, the compromise of research independence became serious enough to warrant an unprecedented joint statement of experimental protocols by leading world medical journals (Davidoff et al, 2001). High profile cases made headlines as pharmaceutical companies sought to control research parameters of disclosure and safety, as in the case of Dr. Nancy Olivieri, sued by Apotex, a pharmaceutical company for breach of a contract involving a confidentiality agreement. She was later fully exonerated (Phillips et al, 1998).

Recently, the overlap between science and industry has resulted in a recommendation by Health Canada to permit pharmaceutical companies utilize direct to consumers advertising (DTCA) of prescription drugs (Canada, Health Canada, 2003), a practice which increases physician appointments considerably as well as prescription drug consumption levels. Only two countries permit DTCA, New Zealand and the United States. The Canadian Medical Association, the Canadian Pharmacists Association and the Consumers' Association of Canada have all taken strong policy positions against the introduction of DTCA, calling instead for publicly financed alternatives (Gardner et al, 2003). Additionally, the House of Commons Standing Committee on Health issued a report recommending that Health Canada immediately enforce the current prohibition of all industry-sponsored advertisements on prescription drugs to the public (Canada. House of Commons Health Committee, 2004), a position strongly supported by the Canadian Women's Health Network and by Women and Health Protection (WHP), a national watch-dog group of Canada's drug regulatory system (Women and Health Protection, 2004).

There have been studies published in peer reviewed journals. A study comparing the behaviour of patients in a Canadian city to that of patients in a nearby U.S. city indicated that patients in the American city (where direct advertising is allowed) are twice as likely to request medications than in the Canadian city. They were also twice as likely to request advertised drugs (Mintzes et al, 2003). Another finding of the study was that physicians prescribed the advertised drugs, despite ambivalence about treatment choices (Mintzes et al, 2002).

University Funding: Another area in which serious concerns have been raised about independence of science from industry is in university research. The cutback of funding to post-secondary education and the concurrent emphasis on commercial value to research efforts have led to increased reliance on public-private partnerships. Within the university sector, this development was strongly fostered and partnerships between business, industry and universities were forged, hailing excellence by investing in people, knowledge and opportunity (Robertson et al, 2003). Researchers were given the opportunity to apply their findings and knowledge to commercial applications. This also enabled the closure of independent laboratories maintained at considerable expense by government.

However, as universities lose their independence within these PPPs, questions need to be raised concerning the common goals of these partnerships. University mission statements note responsibility to seek truth and provide service. The primary responsibility of industry is to profitability on behalf of shareholders (Lewis et al, 2001). This clearly has the potential to create conflict.

Academic Freedom figured highly in the Dr. Olivieri case. At the time of the Apotex incident, Dr. Olivieri held an academic appointment in the Faculty of Medicine of the University of Toronto. She was dismissed from her job at the Hospital for Sick Children in Toronto, which identifies itself as "one of the teaching hospitals of the University of Toronto." She retained her academic post, but was not supported in any way by her university in her fight for ethical responsibility and her reputation (Schafer, 2004). It was later learned that at the time Olivieri came under attack, the University was negotiating with Apotex for a \$20M infrastructure investment.

The inquiry which exonerated Dr. Olivieri released recommendations, which included:

C Contracts involving industrial sponsorship of clinical research should never prevent researchers from informing patients or the scientific community of any risks.

C All universities and affiliated teaching hospitals should have in place policies and practices that are effective in protecting academic freedom, as well as principles of research and clinical ethics.

C Health Canada should review the current regulation of health research and make appropriate changes to protect the public interest and the rights of patients who volunteer to be subjects of research (Thompson et al, 2001).

Research Grants: Research grants, as well, are increasingly tied to industry sponsorships. The government Research Partnerships Program (RPP), part of the National Science and Engineering Research Council (NSERC), for example, is comprised of a number of grant types that have a common purpose in promoting closer collaboration between the university research community and other sectors, including government and, most notably, Canadian industry. This purpose is achieved through the support of high-quality research with societal or industrial relevance, and the transfer of the results to Canadian-based organizations (Canada, Research Partnerships Program, 2004).

Agriculture and Genetically Modified Organisms: In agriculture, research has become almost exclusively industry-driven, a practice which has extended to the Ministry of Agriculture, which actively partnered the development of genetically modified wheat, a crop initiative recently withdrawn (temporarily) by Monsanto Company. According to Monsanto's own website, "The initial agreement with AAFC was a multi-year, joint research and development agreement to insert Monsanto's Roundup Ready (RR) trait into the elite germplasm owned by AAFC." Access to this special germplasm, developed over many years by scientists at the Ag Canada Research Centres, gave Monsanto an advantage over other biotech companies (GENET7, 2001) (Grenier, 2002).

Even more damaging was the fact that other wheat-breeding research was put on hold as the germplasm and scientists' efforts were directed to the work on Roundup Ready Wheat. Also, to quote AAFC : "A collaborative research agreement with us means you can work with some of the world's best scientists to assemble multi-talented, multi-disciplinary research teams. You get access to top notch labs and equipment. National and international research networks can be at your fingertips." In addition, "Ownership, access to and management of intellectual property are all negotiable on a case-by-case basis between the collaborating parties" (Canada, Agriculture, 2003).

With this ministry/industry partnership the question arises whether Agriculture and Agri-food Canada should be compromising its own independence as an arm of Government and representative of the Canadian citizenry by actively investing in industry, which thereby makes the Ministry a stakeholder in the success of the product (Canadian Broadcasting Corporation, 2003).

The entire area of scientific independence in genetically modified organisms was addressed by the Royal Society of Canada. The Panel recommended that the Canadian Biotechnology Advisory Commission (CBAC) undertake a review of the problems related to the increasing domination of the public research agenda by private, commercial interests, and make recommendations for public policies that promote and protect fully independent research on the health and environmental risks of agricultural biotechnology (Canada, Royal Society Report, 2001).

Pesticides: In yet another area of considerable compromise between science and industry, pesticide research and industry marketing have come under closed scrutiny in recent years. The CFUW resolution *Cosmetic Use of Pesticides: Registration and Education* identified growing concern regarding independence of research procedures in all areas affecting public health (CFUW, 2001). Of such weight has this concern been in scientific data collection, that in September of 2001 the world's leading medical journals agreed to no longer publish articles in which scientific objectivity is in question (Davidoff 2001). In fact, prior to the revised Pest Products Registration Act (PCPA) (Canada, Health Canada, PCPA, 2002), many questionable practices were used in pesticide research and in chemical research of all kinds, including suppression of unfavourable results, interference in testing protocol, and restrictions on investigator freedoms of publication and discussion (Lewis et al, 2001) (Lexchin et al, 2003).

The Ontario College of Family Physicians concluded in their recent review of pesticide research that the results of the systematic review do not help indicate which pesticides are particularly harmful. Exposure to all the commonly used pesticides C phenoxyherbicides, organophosphates, carbamates, and pyrethrins C has shown positive associations with adverse health effects. The literature does not support the concept that some pesticides are safer than others; it simply points to different health effects with different latency periods for the different classes. Their advice was to reduce exposure to all pesticides, rather than targeting specific pesticides or classes, advice in direct opposition to chemical company profit levels (Sanborn et al, 2004).

Conclusion: In summary, the potential compromise between the independence of scientific enquiry and industry allegiance to profitability is an issue that is emerging as critical to our health and well-being in many areas of research. As the global economy grows, economic levels of investment are higher and expectations greater. CFUW urges governments at all levels to enable independent research in all areas of scientific enquiry, and to ensure that marketing protocols are such that scientific independence is maintained.

Bibliography

Canada, Agriculture and Agri-Food Canada: Matching Investment Initiative, 2003, http://res2.agr.gc.ca/indust/mii/guide_e.htm

Canada, Health Canada. *Health Protection Legislation Renewal, Detailed Legislative Proposal*, 2003.

Canada, Health Canada, Pest Control Products Act (PCPA), 2002.

Canada, House of Commons Standing Committee on Health, *Opening the Medicine Cabinet: First Report on Health Aspects of Prescription Drugs*, 2004.

Canada, Research Partnerships Program, National Science and Engineering Research Council, 2004, http://www.nserc.ca/programs/rpg_e.htm

Canada, Royal Society Report, *Expert Panel on the Future of Food Biotechnology, The Royal Society of Canada, Elements of Precaution: Recommendations for the Regulation of Food, The Royal Society of Canada, Ottawa, Ontario 2001.*

Canadian Broadcasting Company: Agriculture Canada Could Get GM Wheat Royalty, 2003, <http://sask.cbc.ca/regional/servlet/View?filename=royalty031128>

Canadian Federation of University Women, *Cosmetic Use of Pesticides: Registration and Education*, resolution, 2001.

Davidoff F, DeAngelis CD, Drazen JM, Nicholls MG, Hoey J, Højgaard L, et al. Sponsorship, authorship and accountability [editorial]. CMAJ 2001;165 (6):786-8.

Gardner, David M., Mintzes, Barbara, Ostry, Alex, Direct-to-consumer prescription drug advertising in Canada: Permission by default? CMAJ \$ September 2, 2003; 169 (5).

GENET7, Canadian government closely linked to Monsanto's GE wheat project, 2001 <http://www.gene.ch/genet/2001/Aug/msg00014.html>

Grenier, Mike, Canadian Wheat Board, *Agronomic Assessment of Roundup Ready Wheat*, 2002

Lewis, Steven, Baird, Patricia, Evans, Robert G., Ghali, William A., Wright, Charles J., Gibson, Elaine, Baylis, Françoise. Dancing with the porcupine: rules for governing the university/industry relationship, CMAJ \$ September 18, 2001; 165 (6).

Lexchin, Joel, Bero, Lisa, Djulbegovic, Clark, Otavio, Pharmaceutical industry sponsorship and research outcome and quality: systematic review, British Medical Journal, 2003;326:1167-1170 (31 May).

Mintzes, Barbara et al. "An assessment of the Health System Impacts of Direct-to-Consumer-Advertising of Prescription Medicines [DTCA]." Centre for Health Services and Policy Research, University of British Columbia. February 2002.

Mintzes, Barbara et al. "How does direct-to-consumer advertising [DTCA] affect prescribing? A survey in primary care environments with and without legal DTCA." CMAJ, September, 2, 2003, pp.405-412.

Phillips RA, Hoey J. Constraints of interest: lessons at the Hospital for Sick Children. CMAJ 1998;159:955-7.

Robertson, Heather-Jane, McGrane, David, Shaker, Erika, For cash and future considerations : Ontario universities and public-private partnerships, Ottawa : Canadian Centre for Policy Alternatives, 2003.

Sanborn, Margaret, Cole, Donald, Kerr, Kathleen, Vakil, Cathy, Sanin, Luz Helena, Bassil, Kate, Ontario College of Family Physicians Pesticides Literature Review, 2004.

Schafer, A. Biomedical conflicts of interest: a defence of the sequestration thesis--learning from the cases of Nancy Olivieri and David Healy. J Med Ethics 2004, 30: 8-24.

Thompson, John, Baird, Patricia, Downie, Jocelyn. Report of the Committee of Inquiry on the Case Involving Dr. Nancy Olivieri, the Hospital for Sick Children, the University of Toronto, and Apotex Inc., 2001, <http://www.caut.ca/english/issues/acadfreedom/olivieri.asp>

Women and Health Protection. A New government report on prescription drugs calls for immediate ban on drug advertisements, more transparency for drug trials. @ <http://www.whp-apsf.ca/en/press/pr-drugs.html> 2004