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Mr. Gerry Ritz, Chairman
Standing Committee on Agriculture and Agri-Food
Sixth Floor, 180 Wellington Street
Wellington Building
House of Commons
Ottawa, ON K1A 0A6

February 9, 2007

Dear Sir:

I would like to introduce myself as a representative of the Public Research and Regulatory Initiative. The PRRI offers a forum for the public research sector to be informed about and involved in international agreements that are relevant to modern biotechnology. The members of the PRRI (i.e. the 'Forum') are public research scientists, each working at public research institutions from over 40 countries. Information about PRRI can be found on the attached information paper and on <http://www.pubresreg.org>. We are particularly interested in providing scientific content in the evaluation, application and regulation of Agriculture Biotechnology.

We are particularly concerned about recent activities by leaders of NGOs such as Dr. Ricarda Steinbrecher for EcoNexus and an active member of the "ban-the terminator" campaign based in Montreal as well as recent requests by the National Farmers Union of Canada to ban Genetic Use Restriction Technologies (GURTs). In reading the transcript from the Dec 5th, 2006 meeting with Dr. Steinbrecher and the Standing Senate Committee on Agriculture and Forestry, there are several statements that are incorrect and/or scientifically unsound. Firstly, Dr. Steinberger has never worked or published on this technology and has not critically evaluated it to substantiate her statement that "there are no scientific publications on this technology". Actually, there are several scientific publications (see key references below) on this technology.

Contrary to statements that GURTs are banned on the international level, the last Conference of the Parties to the Convention on Biodiversity encourage research to "*Continue to undertake further research, within the mandate of decision V/5 section III, on the impacts of genetic use restriction technologies, including their ecological, social, economic and cultural impacts, particularly on indigenous and local communities*". Field trials are not recommended to be banned in this language and are simply subject to the regulations of the country where the trials are being conducted.

While a GURT application was first patented and developed by the USDA and licensed to Delta and Pineland, GURTs is not limited to this patent per se, but includes any technology that involves a natural gene switch that controls the onset of a trait and that can be controlled using external queues such as a chemical or temperature etc. The trait may or may not be related to pollen production or seed production.

As with the USDA invention, many of these technologies are developed in public labs with the goal of precisely controlling traits such as the movement of pollen, the onset of disease resistance (see Koo et al. 2005) or production of seeds. Public researchers are particularly interested in using this technology as one of many tools for co-existence programs. For example, it may be desirable



to be able to confidently grow high value canola varieties designed for specific uses, such as for food, industrial rapeseed, biofuels and even plant-made vaccines (Dus Santos and Wigdorovitz. 2005). GURTs is not meant to replace, but to complement current systems for co-existence including crop rotation and isolation distance effectively being used in the certified seed industry in Canada for the last 100 years. GURTs also have potential use in controlling the propagation of trees with enhanced fibre or disease traits. Alternative uses for GURTs are to control volunteers of canola and wheat or losses due to pre-harvest sprouting in wheat. With conventional technologies, these problems are not being addressed as varieties that do not sprout are not available or cannot be effectively propagated during the seed production process. Varieties with a GURTs system can have genetic switches turned on or off when needed during seed and crop production. Also erroneously stated, GURTs per sé do not threaten biodiversity. GURTs limiting reproduction (pollen or seed viability), by definition, are severely limited to propagate or become “superweeds”. GURTs technology is relatively new and is continually being refined and evaluated to address practical issues. As with all new technologies, the PRRI believes that the *product* should be evaluated for safety to humans, animals and the environment on a case-by-case basis, the very reason for practical protocols for scientifically-based risk assessment.

Canada is a leader in science-based regulations of novel products. The Canadian delegation continues to persevere and lead the way in regulations pertaining to biotechnology. We commend the members of the Standing Senate Committee on Agriculture and Forestry to stay well-informed and practical on these issues. The PRRI is happy to participate and consult on the very important issue of GURTs.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Allen Van Deynze', is positioned below the word 'Sincerely,'.

Allen Van Deynze
PRRI co-chair for GURTs
Senior Scientist, University of California
Ph. D, University of Guelph, ON

References:

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- Koo, J.C., S. Asurmendi, J. Bick, T. Woodford-Thomas, and R.N. Beachy. 2004. Ecdysone agonist-inducible expression of a coat protein gene from tobacco mosaic virus confers viral resistance in transgenic Arabidopsis. *Plant J* 37:439-48.
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