



Council of Canadian Academies  
Conseil des académies canadiennes

# Media Backgrounder

## ***Integrating Emerging Technologies into Chemical Safety Assessment***

The Report of the Expert Panel on the Integrated Testing of Pesticides

In May 2009, the Minister of Health, on behalf of the Pest Management Regulatory Agency (PMRA), approached the Council of Canadian Academies to appoint an expert panel to answer the question:

**What is the scientific status of the use of integrated testing strategies in the human and environmental regulatory risk assessment of pesticides?**

In response to this question, the Council assembled a multidisciplinary panel of 15 eminent experts from Canada and the United States. This Expert Panel was chaired by Dr. Leonard Ritter, Professor Emeritus of Toxicology in the School of Environmental Sciences at the University of Guelph, and Executive Director of the Canadian Network of Toxicology Centres. The report of the Expert Panel provides an in-depth assessment of the current state of the science of integrated testing strategies by addressing the following questions:

- What is the state of the science of the tools and data sources associated with integrated testing strategies?
- What is the current status of the use of integrated testing strategies for the risk assessment of pesticides, pharmaceuticals, industrial chemicals, and other chemical substances by regulatory agencies around the world?
- Could there be potential impacts on the public's perception and confidence in regulatory risk assessment and risk management decisions for pesticides if integrated testing strategies were implemented?

The report is based on a review of scientific literature, expert witness submissions, analysis of international developments, and the Panel's own extensive expertise.

After examining the available evidence, the Council's Expert Panel concluded the issues inherent in the current approach to chemical testing are the lack of toxicity data for the majority of industrial chemicals, and the need to strengthen regulatory decisions based on the best available science. The Panel believes these challenges can be met by adopting an integrated approach to testing and assessment (IATA) of chemicals.

The evidence suggests that over time, IATA would enhance the reliability of existing testing practices by integrating new science into the regulatory framework, while also making it possible to assess the safety of data-poor chemicals that have not yet received extensive analysis.

The Expert Panel's report also indicates that the adoption of IATA strategies may refine and streamline testing of chemicals, as well as improve results. Although the Panel is not aware of a complete set of alternative testing methods that could be immediately adopted, the state of the science is evolving rapidly and the Panel expects to see an increased use of integrated testing strategies over the next decade, resulting in improved evidence-based decision making.

For more information, or to download a free copy of the report please visit:

<http://www.scienceadvice.ca/en/assessments/completed/pesticides.aspx>