



Council of Canadian Academies  
Conseil des académies canadiennes

## NANOTECHNOLOGY: PUBLIC CALL FOR EVIDENCE

The Council of Canadian Academies has been asked by the federal Minister of Health: “What is the state of knowledge with respect to existing nanomaterial properties and their health and environmental risks, which could underpin regulatory perspectives on needs for research, risk assessment and surveillance?” An Expert Panel on Nanotechnology has been appointed by the Council of Canadian Academies to address this question. The panel would welcome evidence from the public on the issues before the panel. Respondents are invited to provide their input via answers to some or all of the specific questions below. Scientific knowledge, or evidence, is broadly interpreted to include natural sciences and engineering, as well as social sciences.

### 1. Deadline and Where to Send Responses

Responses received by **Friday, November 30, 2007** will inform the next in-person meeting of the Expert Panel on Nanotechnology. If you believe you need more time to respond, we will accept submissions until **Friday, January 11, 2008**.

Responses are likely to have the greatest impact if they are restricted to, at most, four pages, plus appendices if appropriate. Responses should be sent by email to [nanotech@scienceadvice.ca](mailto:nanotech@scienceadvice.ca), or alternatively by regular mail to:

Marie-Noëlle Ip, Program Director  
Council of Canadian Academies  
180 Elgin Street, suite 1401  
Ottawa, ON, K2P 2K3

### 2. Specific Questions

The Expert Panel on Nanotechnology welcomes, as evidence for its deliberations, your responses to any or all of the following questions:

1. What do you understand by the term “nanotechnology”?
2. Are there any unique risks associated with nanotechnology? (You may interpret “unique” to mean either “unique in kind” or “unique in scale” and interpret “risks” broadly including human health, environmental, economic, social, legal and ethical risks but it is helpful to be precise about the nature of the risks).
3. Do you have concerns about the suitability of the existing regulatory systems (provincial or federal) to address the risks of nanomaterials and products of nanotechnology? If yes, please elaborate.
4. What are the key knowledge gaps that would need to be filled to ensure the effective and efficient regulation of nanomaterials and products in Canada?
5. Are there any unique aspects of nanotechnology that require specific methods of stakeholder participation for managing risk? If yes, please describe these aspects and methods.

### 3. Publication

The final report of the Expert Panel will list the individuals and organizations that submitted evidence. We may also publish, electronically or otherwise, the evidence submitted along with the final report of the panel. We may contact contributors for clarification or follow-up meetings.

Please indicate clearly:

- Whether your response is a personal or institutional position;
- If you do not wish your submission to be made public;
- If you do not wish to be identified as a contributor;
- If you do not wish to be contacted by the Council of Canadian Academies in relation to your submission. (The Council will only contact those parties that are identified by the Expert Panel for follow-up after review of the evidence).

*Please feel free to circulate this document to others who may be interested.*

#### **About the Council of Canadian Academies ([www.scienceadvice.ca](http://www.scienceadvice.ca))**

The primary mission of the Council of Canadian Academies (“Council”) is to provide independent, expert assessments of the science that is relevant to matters of significant public interest. The Council thus facilitates access to the best available scientific knowledge with the objective of informing public debate and decision-making.

The Council is a not-for-profit corporation. It became effectively operational in March, 2006 with the support of a \$30 million founding grant from the Government of Canada. The grant is intended to support core operations of the Council for ten years.

The principal client of the Council, at present, is the Government of Canada. The Council has agreed to undertake up to five assessments per year on topics proposed by the government. In future, clients could also include provincial governments, non-governmental organizations, foundations and possibly the commercial sector. The cost of studies, other than those proposed by the Government of Canada (as referred to above), would be funded by these additional clients.

Council studies are undertaken by independent panels of experts (often from universities) appointed by the Council. Panel members serve voluntarily, without fees or honoraria. The Council provides staff support for expert panels and covers the cost of panel meetings and other costs incidental to the expert panel process. Council reports are authored by the panel, reviewed by outside experts and drafts are not disclosed to the sponsor prior to publication to ensure independence. All assessment reports of the Council are made public in both French and English.

The Council’s Member Academies are: RSC: The Academies of Arts, Humanities and Sciences of Canada; Canadian Academy of Engineering; and Canadian Academy of Health Sciences.

## Appendix

A panel of experts (see below) has been appointed by the Council to analyse and report on the question posed by the federal Minister of Health - "What is the state of knowledge with respect to existing nanomaterial properties and their health and environmental risks, which could underpin regulatory perspectives on needs for research, risk assessment and surveillance?"

Pekka Sinervo (FRSC) Chair	Dean, Faculty of Arts and Science, University of Toronto (Toronto, ON)
Sabin Boily	President, LithChi Inc. & Chairman, Société pour la promotion de la science et de la technologie (Chambly, QC)
Conrad Brunk	Director, Centre for Studies in Religion and Society & Professor of Philosophy, University of Victoria (Victoria, BC)
David Castle	Canada Research Chair in Science and Society & Associate Professor, Department of Philosophy, University of Ottawa (Ottawa, ON)
Warren Chan	Canada Research Chair in Bionanotechnology, and Assistant Professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto (Toronto, ON)
Meng-Dawn Cheng	Distinguished R&D Staff Member and Group Leader, Atmospheric and Aerosol Science Group, Environmental Sciences Division, Oak Ridge National Laboratory (Oak Ridge, TN)
Richard Gold	Director, Centre for Intellectual Property Policy & Professor, Faculty of Law, McGill University (Montreal, QC)
Peter Grütter (FRSC)	Professor, Department of Physics, McGill University (Montreal, QC)
Christopher Haarmann	Senior Vice-President, Global Liability Line of Business Head, Zurich Insurance Companies (New York, NY)
Andrew D. Maynard	Chief Science Advisor, Project on Emerging Nanotechnologies, Woodrow Wilson International Center for Scholars (Washington, D.C.)
Günter Oberdörster	Professor, Environmental Medicine, School of Medicine & Dentistry, University of Rochester (Rochester, NY)
Jo Anne Shatkin	Managing Director, CLF Ventures (Boston, MA)
Lorraine Sheremeta	Research Officer, National Institute for Nanotechnology & Research Associate, Health Law Institute, University of Alberta & Special Advisor, Strategic Development, Alberta Ingenuity Fund (Edmonton, AB)
Robert Slater	President, Coleman, Bright and Associates (Ottawa, ON)
Nigel Walker	Lead Scientist-NTP Nanotechnology Safety Initiative, National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP) (Research Triangle Park, NC)