

7. Saturday, February 16, 2008, 1:45 PM to 4:45 PM

Nanotechnology and Health: What Are the Benefits and Risks?

Session Title: Nanotechnology and Health: What Are the Benefits and Risks?

Session Type: 180-Minute Symposium

Session ID:

Session Time: 2/16/2008 1:45:00 PM

Location: Hynes Convention Center, Third Level

Room: Room 313

Synopsis: The beneficial aspects of nanotechnology for human health are expected to improve the quality of life for everyone. Applications of nanotechnology in medicine have the potential to improve the standard of health-care across the population by earlier and better diagnosis and by new therapies especially for those diseases that cause the most suffering for patients and the highest burden on society. Many areas of nanotechnology do not present new hazards for human health and the environment, and in general, the present regulatory frameworks applied (e.g., in the United States and the European Union) seem to be sufficiently broad and flexible to handle most of the nanotechnology developments. Analyses of potential risks posed by nanotechnology and related regulatory issues usually concern a specific field of applications the most prominent being the unknown toxicity of engineered nanomaterials. Very often, the perceived or realistic opportunities and risks of nanotechnology derive from the very same characteristics. As an example, the transportation properties of nanoparticles in tissue allow the development of novel pharmaceuticals (e.g., targeted drug delivery) but also raise concerns of adverse health effects caused by a greater toxicity than expected from the elemental composition.

Organized by:

Aidan Gilligan, European Commission, Joint Research Centre, Brussels, Belgium

Presentations:

Moderator--**Elke Anklam**, Joint Research Centre, Institute for Health and Consumer Protection, Ispra, Italy

Nanotechnology and Health: Challenges for Research in Support of European Union Policies--**Hermann Stamm**, Joint Research Centre, Institute for Health and Consumer Protection, Ispra, Italy

Nanotechnology for Health Care--**Jean-Marc Grognet**, CEA, Yvette Cedex, France

Nanotoxicology: Identification of Environmental, Health, and Safety Risks--**Vicky Stone**, Napier University, Edinburgh, United Kingdom

Fuelling Innovation in Europe: European Funded Research Actions--**Renzo Tomellini**, European Commission Directorate-General Research, Brussels, Belgium

International Research and Data Needs to Support Regulatory and Policy Decision Making on Nanomaterials--**Jim Willis**, U.S. Environmental Protection Agency, Washington, DC

Nanotechnology: The Challenge of Risk Communication and Consumer Participation--**Ortwin Renn**, University of Stuttgart, Stuttgart, Germany

