



*ILSI Health and Environmental Sciences Institute*

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## HESI Webinar

# GENOTOXICITY OF NANOMATERIALS

February 9, 2009

10:30 am – 12:00 pm (US Eastern)

Moderator:

**Raymond M. David, PhD, DABT**

(BASF Corporation)

Chair, HESI Project Committee on Nanomaterial  
Environmental, Health and Safety



# Purpose

**Provide a state-of-the-science review of the published literature on genotoxicity testing of nanomaterials**

- Are existing and validated *in vitro* and *in vivo* assays appropriate?
- Which assays should be used?
- What technical issues are associated with delivery of nanomaterials in the test systems?



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# Background Materials

(distributed to confirmed webinar participants in advance)

**Gonzales et al. 2008. Genotoxicity of engineered nanomaterials: a critical review. *Nanotoxicol* 2(4), 252-273.**

**Landsiedel et al. 2008. Genotoxicity investigations on nanomaterials: methods, preparation, characterization of test material, artifacts and limitations – many questions, some answers. *Mutat Res* doi:10.1016/j.mrrev.2008.10.002.**



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# Webinar Format

- **Presentations by 2 speakers (30 minutes each, including Q&A)**
- **Panel discussion (20 minutes)**
- **Outcome: Recommendations regarding genotoxicity testing of nanomaterials**



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# Confirmed Participants

(approximately 50 invited)

## Industry (France, Germany, UK, US)

- Pharmaceutical
- Consumer products
- Chemical

## Government

- US: FDA, NIEHS, CPSC, National Cancer Institute
- Canada: Health Canada
- Italy: European Commission, JRC
- Japan: National Institute of Health Sciences
- Germany: BfR Federal Institute for Risk Assessment
- The Netherlands: TNO

## Academia (Denmark, Russia, UK, US)

- University of Copenhagen (Denmark)
- University of Rochester (US)
- University of Surrey (UK)
- School of Medicine, Swansea University (UK)
- Medical University, Kazan (Russian Federation)



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# Speakers

## **Dr. Robert Landsiedel (BASF SE)**

- *Genotoxicity of Nanomaterials: Appropriate Testing Methods and Preparation of the Test Material*

## **Dr. Steffen Loft (University of Copenhagen)**

- *In Vivo / In Vitro Associations of Oxidative Stress-Induced Genotoxicity of Nanomaterials*



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# Asking Questions ("Chat Box")

As you listen to each presentation, you may have questions or comments.

## How to ask questions:

- Type your question/comment in the "**chat box**" in the lower right column.
- Questions will be taken in the order submitted.
- Time may not be available for all questions.



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# Post-Webinar Availability of Presentations

**PDF versions of the presentations (as approved by the two speakers) will be made available post-webinar to participants.**





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# Webinar Summary

HESI anticipates writing a brief **summary paper for publication** in a scientific peer-reviewed journal. When this publication becomes available, webinar participants will be notified.

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