

# SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety



## The Toxicology of Nanoparticles

April 8, 2021



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## Roundtable Discussion



**Richard Canady**  
Moderator



**Anil Patri**



**Christie Sayes**



**Walter Brand**



**Lynne Haber**



**Timothy Duncan**



**Agnes Oomen**



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## Agnes G. Oomen, PhD

National Institute for Public Health and the Environment (RIVM), Bilthoven,  
The Netherlands

1. Should well-dispersed nanomaterials be used for toxicity testing to cover worst case exposure situations?
2. How should we interpret toxicity studies in which there was some degree of agglomeration?
3. To which extent is information on toxicokinetics, e.g., internal exposure, needed to aid understanding the relationship between external exposure and hazard?



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**Timothy V. Duncan, PhD**  
**US FDA, Bedford Park, IL**

4. What are the key challenges that nano introduces to comparison of acceptable intake estimates to measured intake estimates?
5. What recommendations would you give for standardizing operational procedures to determine and report critical nano-toxicological and nano-exposure data?
6. Should the approach to safety assessment differ when a nanomaterial is intentionally added to a food vs. indirectly or unintentionally present?
7. Because key metrics like dose, identity, etc., are much more complicated for nanomaterials across concentrations and local conditions, should procedures be changed to ensure that allowable limits have enough of a safety margin?



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## **Conclusion**

**Jia-Sheng Wang, PhD**

**Chair, SOT FDA Colloquium Organizing Committee  
University of Georgia**



# **SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety**

**Watch for the Announcement of Two  
Topics for the 2021-2022 Colloquia**



# SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety

## Colloquia Materials

- Recordings
- Slides
- Captioning Text

The screenshot shows the SOT (Society of Toxicology) website. The header includes the SOT logo and navigation links: "Join or Upgrade Your Membership", "Renew Your Dues", "Volunteer", "Member Login", "ToXchange", and "Support". A secondary navigation bar lists: "About SOT", "Members & Groups", "Meetings & Events", "Publications & News", "Awards & Funding", "Careers", "Education", and "Endowment Fund". The main content area features a dark blue banner with the text "SOT FDA Colloquia" and a breadcrumb trail: "Home > Meetings & Events > SOT FDA Colloquia". Below the banner is a large image of a group of people at a conference. To the right of the image are social media icons for Facebook, Twitter, LinkedIn, and Email. The main heading reads "SOT FDA Colloquia on Emerging Toxicological Science: Challenges in Food and Ingredient Safety". The introductory text states: "In 2014, SOT and the US FDA Center for Food Safety and Applied Nutrition (CFSAN) began a partnership to present colloquia designed to present high-quality, cutting-edge, future-oriented toxicological science to provide a well-grounded foundation to inform the work of US FDA employees. These colloquia are open at no cost to all who are interested. Recordings and materials are available after the events and can be found below."

available at no charge at [www.toxicology.org](http://www.toxicology.org)



**Thank you for your participation.**

**We also appreciate your input—complete the survey at  
the link sent to registrants.**