

## S18-1 **Overview: Resent topics of NanoTox studies for their safety**

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The United States declared the "National Nanotechnology Initiative: NNI" in 2000. Thus, the NNI has become a priming device for the promotion of nanotechnology. In Japan, nanotechnology is specified in four "emphases of research" fields in the second stage of the Science and Technology Basic Plan published in 2001. Furthermore, nanomaterial research in Japan currently leads the world in terms of "development and practical use". These nanomaterials show useful properties such as electronic reactivity and tissue permeability that are absent in micromaterials and submicromaterials. Thus, it is anticipated that nanomaterials will be developed as innovative materials in medicine and the cosmetics and food industries. However, it has recently been of concern that these properties may lead to unknown biological responses. Thus, to secure human health, promotion of the risk assessment/management of nanomaterials is required on a global level. In this presentation, we would like to discuss recent nanotoxicological (NanoTox) studies in the form of an Overview.