

Dragon, Karen E. (CDC/NIOSH/EID)

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Sent: Thursday, March 31, 2011 5:42 PM
To: NIOSH Docket Office (CDC)
Cc: Rice, Carol (ricech); Bhattacharya, Amit (bhattaat); Kim, Jay (kimj); Lockey, James (lockeyje); Yap, Tracey (yaptl)
Subject: Comments for NIOSH Nanotechnology Strategic plan (Docket NIOSH 134-A)
Attachments: Nanotechnology_UC-ERC_Response-submitted.doc

Attached please find comments from faculty representatives of University of Cincinnati Education and Research Center for NIOSH docket 134-A.

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Re: Comment on NIOSH Nanotechnology Strategic plan (Docket NIOSH 134-A)

We at the University of Cincinnati Educational and Research Center are happy that NIOSH is updating the Nanotechnology Strategic Plan for Research and Guidance. This is an excellent opportunity to show leadership, develop partnerships, and implement "prevention through design" (PtD) concepts for the workers' health and safety in this rapidly growing field.

The ten research areas listed in the "request for information" document are all important. We especially see the research on nanoparticle toxicity and metrics of dose as well as the development of new exposure assessment tools as essential for better understanding the health risks of these materials. We encourage NIOSH to develop partnerships with industries and universities that are developing new nanomaterials and wearable sensors to quantify personal dose and bio-nanosensors for capturing early health effects. The Military may also be a worthwhile partner.

It would be more cost-efficient to incorporate the latest knowledge on the toxicity and aerosolization potential of nanomaterials already in the developmental phase of new materials, rather than when they are already in large-scale use by the industry or already in consumer products. Furthermore, the paradigm used in Europe in the Reach-program could be considered: manufacturers would be required to prove that the material is safe before it can be marketed. The NIOSH model of PtD is especially suited for this. We understand that confidentiality would be an issue with many partners, but believe NIOSH can accommodate this constraint in the R&D workplace. PtD is an opportunity to educate developers, and facilitate design of less hazardous materials. While we understand the need for a registry, PtD is an opportunity to reduce the numbers of people on the registry.

We hope that these comments are useful, and look forward to using this document in classes with graduate students at the University of Cincinnati, many of whom may be in their future jobs dealing with the health and safety of those developing and working with nanomaterials.

Sincerely,

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