

Information Management for Nanotechnology Safety and Health

**Mark D. Hoover¹, Arthur L. Miller², Nathan T. Lowe²,
Aleksander B. Stefaniak¹, Gregory A. Day¹, and Kenneth D. Linch¹**

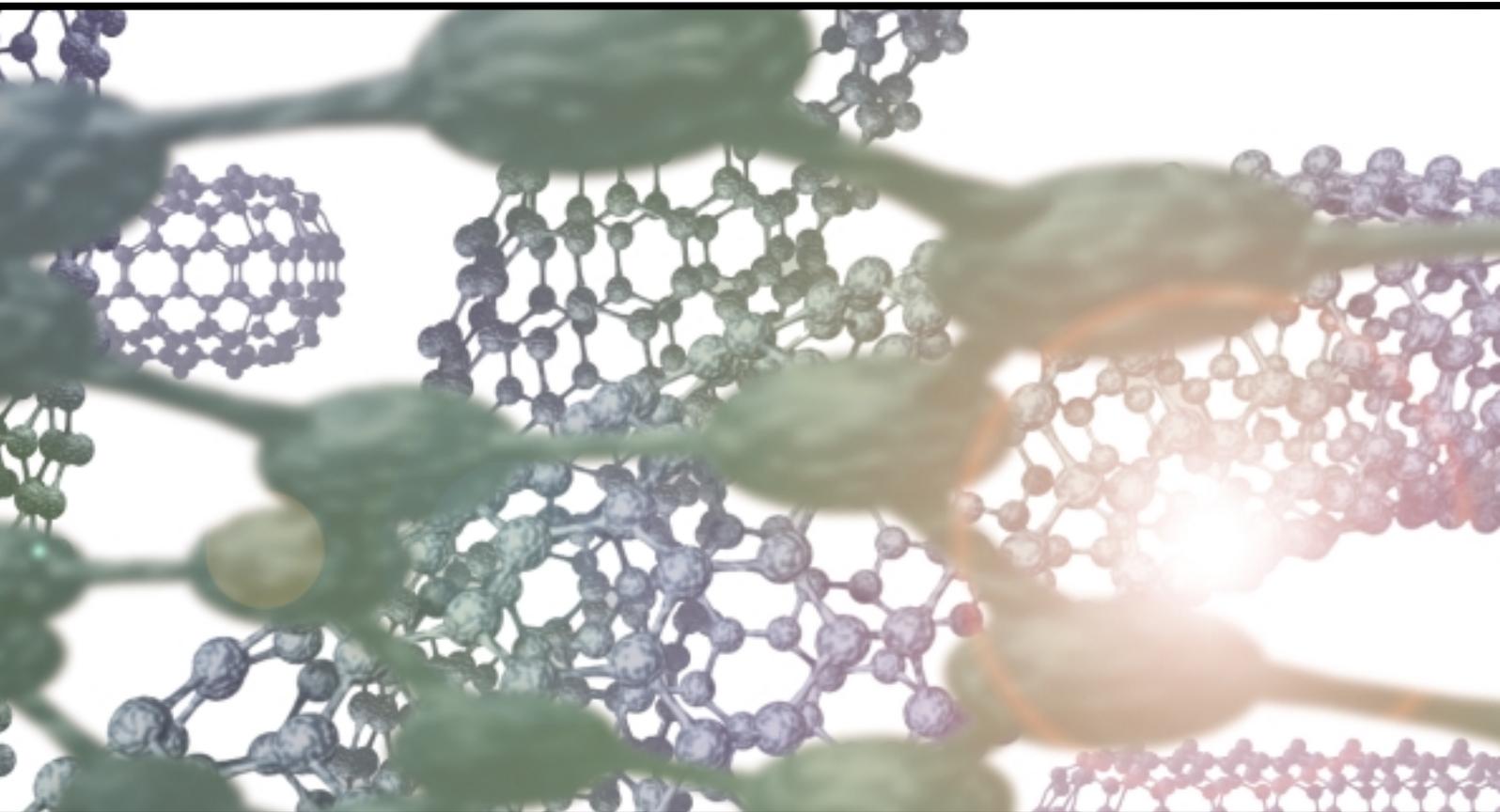
National Institute for Occupational Safety and Health

¹Morgantown, West Virginia, and ²Spokane, Washington, USA

Efforts to ensure the health and safety of nanotechnology workers and members of the public could be substantially enhanced by a coordinated approach to information management. Specific objectives would be to classify nanomaterials and nanoparticles with universal models, share information across industries and organizations, understand routes of exposure and the interrelationships of particle size, surface area, bioavailability, and mechanisms of action for disease; generalize control strategies across industrial processes and classes of materials; develop national and international consensus standards; and be prepared for surprises. The approach to developing an effective information management system will be to engage partners, evaluate candidate information systems, and adopt a Geographical Information Systems (GIS) approach to track multiple layers of information on a local, regional, and global basis. A GIS approach will provide compatibility with the extensive census, epidemiological, and health-based information systems that have already been developed. Candidate database elements might include material type, structural form, composition, application, industry, physicochemical characteristics, toxicology results from studies in laboratory animals, observed health effects in humans, epidemiology, opportunities for health surveillance, and applicable health risk models and exposure limits. A prototype information database has been developed to illustrate how data of interest may be organized and shared. Dialog and collaboration are being sought to refine and apply the information management system.

Nanomaterials

a risk to health at work?



First International Symposium on Occupational
Health Implications of Nanomaterials

12-14 October 2004
Palace Hotel, Buxton, Derbyshire, UK

Report of Presentations at Plenary and Workshop Sessions and
Summary of Conclusions

David Mark
Chair of Symposium
Health and Safety Laboratory,
Buxton, SK17 9 JN



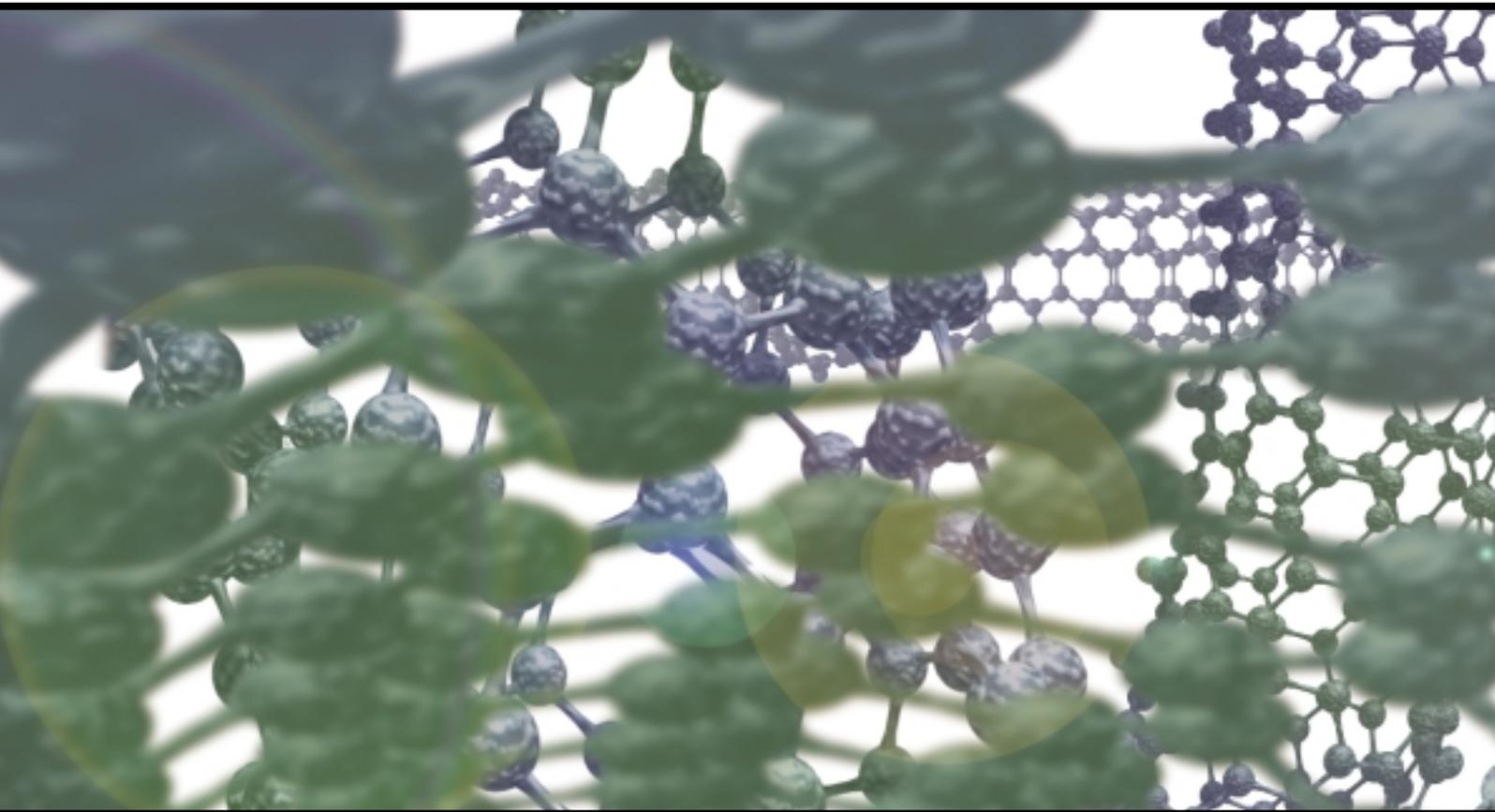
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www.hsl.gov.uk



Contact details
email:hslinfo@hsl.gov.uk
website:www.hsl.gov.uk