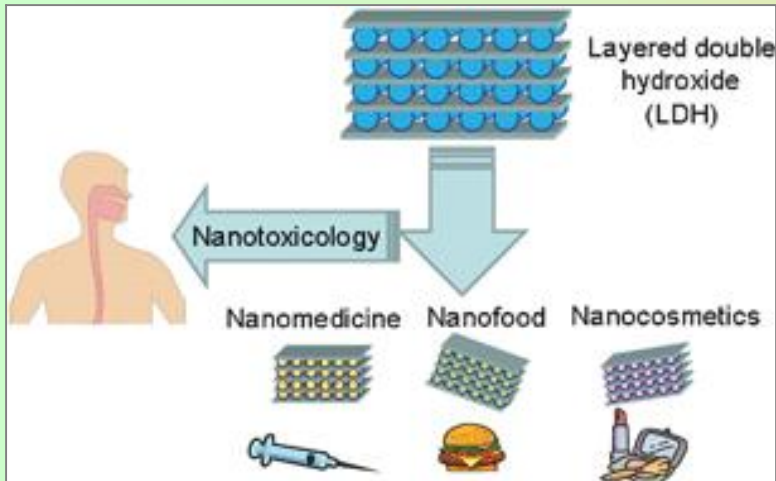
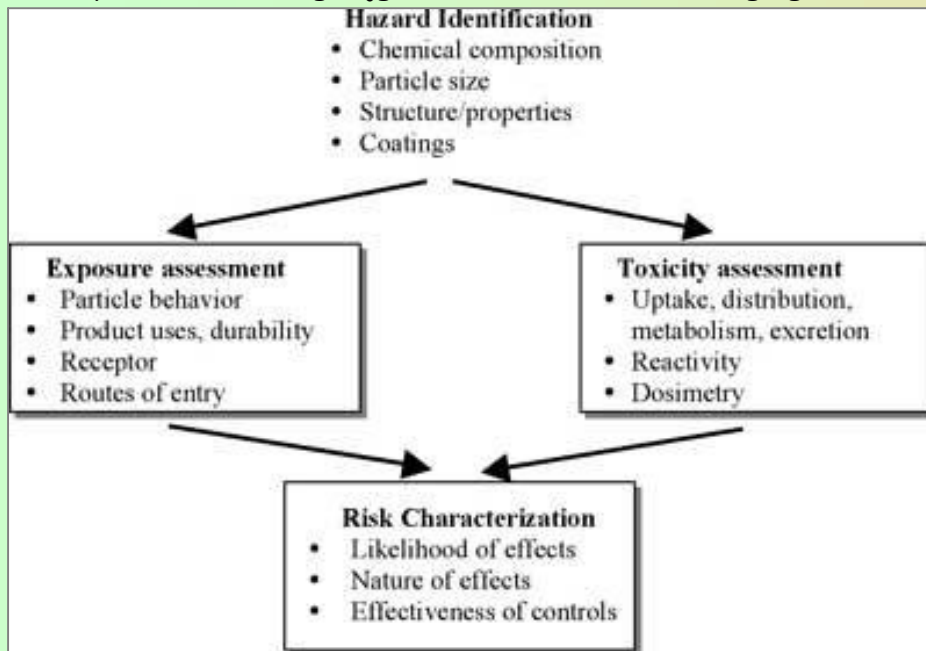


Nanotoxicology



<http://www.rsc.org/ejga/JM/2008/b711208d-ga.gif>



<http://img250.imageshack.us/img250/2364/id1382331dc48za1.jpg>

An Emerging Discipline

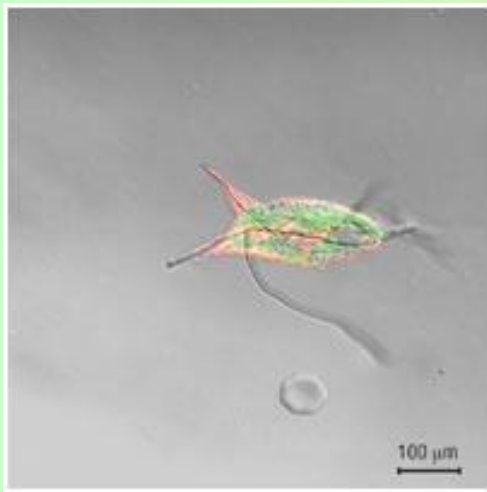
The rapidly developing field of nanotechnology is likely to become yet another source through inhalation, ingestion, skin uptake, and injection of engineered nanomaterials.

Information about safety and potential hazards is urgently needed.

Nanotoxicology



<http://www.research.plymouth.ac.uk/stressbiol/images/nano8.gif>



A rat lung cell attempting to ingest carbon nanotubes that are longer than the distance that the cell can stretch, which means that the rat cannot remove such nanotubes from the body.

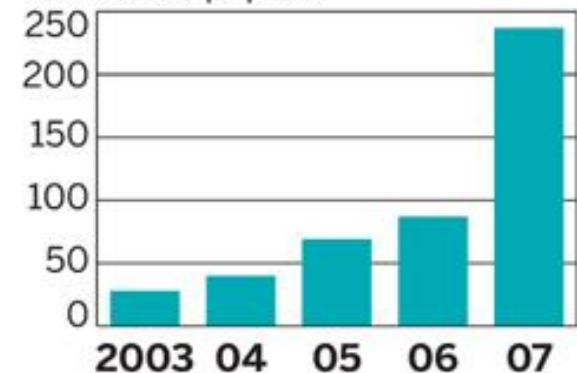
<http://www.nature.com/nnano/journal/v1/n1/thumbs/nnano.2006.69-f1.jpg>

An Emerging Discipline

The rapidly developing field of nanotechnology is likely to become yet another source from exposure to a range of materials incorporating nanotechnology such as paints, cosmetics, electronics, clothing, food, medicines, diagnostics etc.

RESEARCH EXPLOSION Peer-reviewed papers in nanotoxicology are growing exponentially

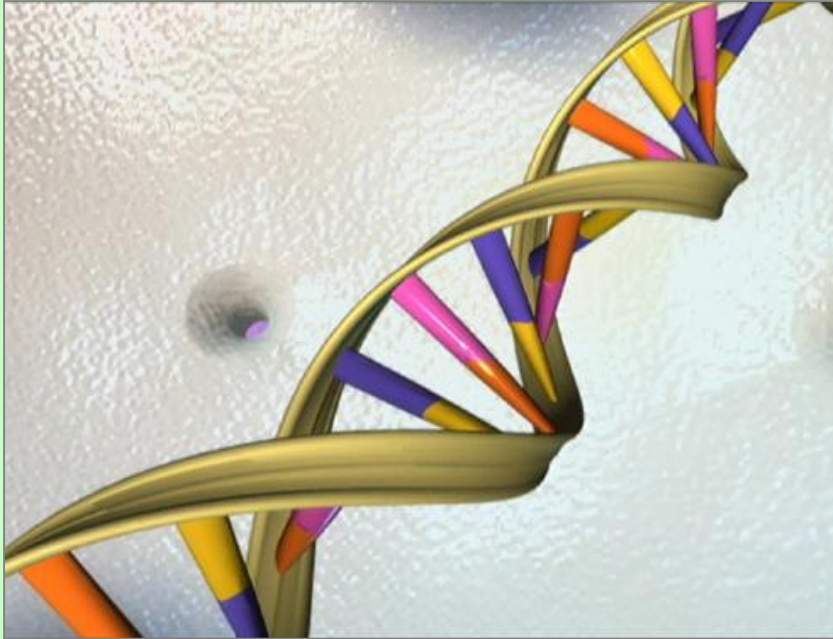
Number of papers



SOURCE: International Council on Nanotechnology
NanoEHS Database

Nanotoxicology

http://2.bp.blogspot.com/_TZ4zYEB5w1I/Rb-oL5xxkLI/AAAAAAAAAIE/TVX2PNcXVuA/s200/dna.jpg



Nanoparticles are small enough to penetrate cell membranes and defenses, yet they are large enough to cause trouble by interfering with normal cell processes, researchers at the University of Massachusetts say.

Such nanoparticles are currently in use in electronics, cosmetics, and chemical manufacturing, among others industries. Because of their extremely small size, they can be difficult to isolate from the larger environment, as they are much too small for removal by conventional filtering techniques.

An Emerging Discipline

Depending on their planned application these engineered nanomaterials may be inhaled, ingested, absorbed through the skin or intentionally injected in a medical procedure.

In addition while there are many proposed potential beneficial outcomes of nanotechnology on the environment (remediation, self-cleaning surfaces) there is currently a paucity of data to know for sure if these materials could have undesirable effects on the environment.