

Press Release

Maisons-Alfort, France, 18 March 2010

NANOGENOTOX: Afsset's launch of a European Joint Action for the characterisation of the potential genotoxicity of nanomaterials

On 18 and 19 March 2010 the French Agency for Environmental and Occupational Health Safety (Afsset) is organising the kick-off meeting for the NANOGENOTOX project in its offices in Maisons-Alfort, France.

The aims of the NANOGENOTOX project

It is a European Joint Action launched on the initiative of the French Ministry of Health and Sports (Directorate General for Health) and coordinated by Afsset. This programme will last for three years and aims to give the European Commission a sound and reliable alternative method for detecting the potential genotoxicity of nanomaterials likely to give rise to a risk of cancer or reproductive toxicity in humans.

The work will allow 14 manufactured nanomaterials to be tested from the following 3 groups: titanium dioxide, silicon dioxide and carbon nanotubes. These groups were chosen based on the following strategic criteria: their possible uses in different product types (cosmetics, food, and common consumer products), their potential exposure routes (oral, dermal, and by inhalation) and the fact that they are produced in Europe.

The NANOGENOTOX project was set up to meet the objectives set within the Programme of Community Action in the Field of Health concerning the safety of nanomaterials, to:

- **strengthen, expand and share the knowledge required for the assessment of the hazard, exposure and overall risk of nanomaterials;**
- **accelerate the exploitation of existing data and the exchange best practices in risk assessment and risk management;**
- **promote the establishment of robust methodologies throughout the European Union.**

This programme targets the implementation of adapted genotoxicity tests due to the uncertainties that exist concerning the specific genotoxicity potential of nanometer scale substances, in comparison with the same chemical compound at a larger scale. According to the January 2009 opinion of the European Scientific Committee¹ on Emerging Risks, very little data currently exists and the studies carried out give conflicting results.

¹ SCENHIR: Scientific Committee on Emerging and Newly Identified Health Risks

So that the NANOGENOTOX project is completed successfully, it will be made up of the following steps:

1. accurately identifying the 14 nanomaterials to be tested through as complete a physical and chemical characterisation as possible;
2. knowing the distribution of nanomaterials in the living organism: toxicokinetics of nanomaterials;
3. carrying out appropriate *in vivo* genotoxicity tests that will be compared with *in vitro* genotoxicity tests that have been carried out on cellular lines appropriate to the route of exposure.

Project organisation

The project is coordinated by Afsset. Afsset has received support from the French Ministry of Health and Sports for this project. This project was launched in February 2009 following a European Community call from the *Executive Agency for Health and Consumers*.

Thirteen European Union Member States (Belgium, Bulgaria, Denmark, Finland, France, Germany, Ireland, Italy, Poland, Portugal, Spain, The Netherlands, and the United Kingdom) are taking part, with work on this programme being shared between eighteen specialised research and expertise organisations from these countries.

The French component of the project involves the French Food Safety Agency (Afssa), the French National Research and Safety Institute (INRS), the French Atomic Energy Commission (CEA) and the Pasteur Institute in Lille. Other French bodies supporting this project and giving expertise are, in particular, the French National Centre for Scientific Research (CNRS), the French Health Products Safety Agency (Afssaps), the French National Testing Laboratory (LNE) and the French National Institute for the Industrial Environment and Risks (INERIS).

The project has a total budget of €6.2 million, coming from public funding: 45% from the European Commission, with the remaining 55% from partnership organisations and the ministries of the Member States participating in this project. In France the main funding is guaranteed by the French Ministry of Health and Sports (Directorate General for Health).

The work being undertaken within the framework of the NANOGENOTOX project supports other international initiatives, notably the sponsorship programme for manufactured nanomaterials from the Organisation for Economic Co-operation and Development (OECD) and the characterisation work by the Nanotechnology Technical Committee of the International Organization for Standardization (ISO TC 229).

Press office for the Ministry of Health: Information and Communication Mission:
+33 (0)1 40 56 52 62 / 42 43

To contact the Afsset press office:
Céline Delysse: +33 (0)1 56 29 16 09 or Nathalie
Lonnell: +33 (0)1 56 29 13 77 or in writing -
presse@afsset.fr

For information on our work, our solicited requests
and our work programme:
www.afsset.fr
www.substitution-cmr.fr
www.observatoire-pesticides.gouv.fr
www.sante-environnement-travail.fr