

IV FRENCH-JAPANESE SYMPOSIUM on BIOETHICS AND ETHICS of SCIENCE

17-19th APRIL 2009-JAPAN

THE NANOTECHNOLOGIES: NEW MATERIALS FOR A SCIENTIFIC, INDUSTRIAL AND SOCIAL CHALLENGE

Friday 17th April 2009

-15pm Official opening

- Key note presentations and public round table on Nanotechnologies (new materials)as a scientific, industrial and social challenge

Saturday 18th April 2009

I Nanotechnologies and Health

Session 1: “Nanodrugs” and clinical nanotechnologies

Theoretically “nanodrugs” (nanoparticles delivering drug) offer the possibility to target specific cells with several potential advantages: a better efficiency and fewer side effects. More than a 150 drugs and medical devices using nanotechnologies have already been developed and may be used to treat some types of cancer, kidney dysfunctions and to prevent aids.

It will then be important:

- **to describe the present perspective in this field** but also
- to ask a few questions on the **problems that may appear from experimenting these new drugs and devices on human beings** : might a risk occur in the future for those who will be treated by these new drugs?
- finally, we should wonder about another risk : **the patent issue and its potential effect on the cost of this new technology** , making the access to some new health care treatment less accessible for developing countries and low income patients in countries with no global medical insurance coverage.

Session 2: Neurosciences and Nanotechnologies

The nanotechnology (it is indeed a microtechnology) may also open the way to repairing dysfunctions of the brain system and consequently bring a new life to those people suffering, for example, of neurodegenerative disorders.

But nanotechnologies may also be used to enhance the brain capacities by creating an interface between the human brain and new types of intelligent machines.

We should then examine:

- the ethical and legal conditions according to which it should be allowed to intervene on the human brain for therapeutic reasons,**
- **the ethical and legal issues raised by the possibility of enhancing human brain capacities, with a specific attention to the connection between bio/nano/computer technologies.**

Sunday 19th April 2009, morning session

II Nanotechnologies and the Environment:

Scarce resources in the field of energy and the greater public awareness regarding atmospheric pollution may lead to concentrate our interest on the ethics of energy.

Session 3 Nanotechnologies , energy and sustainable development

- the alternative sources of energies

Might the nanotechnologies discoveries bring in this area good perspective of developing new types of energy and consequently support the needs of emerging countries?

13pm closing remarks

POTENTIAL PARTNERS AND PARTICIPANTS

National and international –European scientific and regulatory agencies in charge of the concerned issues,

Industrial partners,

Academic research institutions in the different disciplines involved (science sector, human sciences, law...)

Ethics committees, NGOs and representatives of the public