

BIO – TOX Platform

Jérémie Pourchez
Valérie Forest
Lara Leclerc
Gwendoline Sarry

Nanoparticles physico-chemical characterization

Size and zeta potentiel

- Vasco – Particle Size Analyser (Cordouan)
- Nanozetasizer (Malvern)

Dispersion

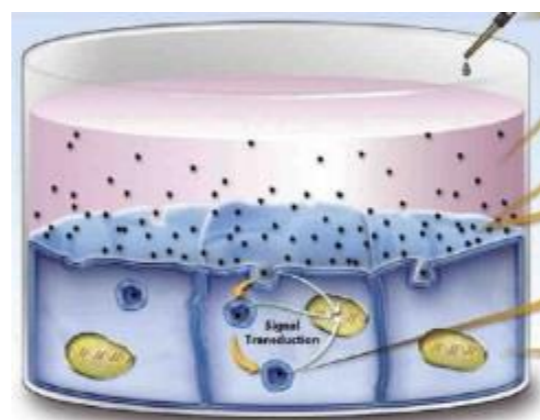
- Ultrasound bath
- Digital Sonifier (Branson)



Cell culture and biological activity evaluation

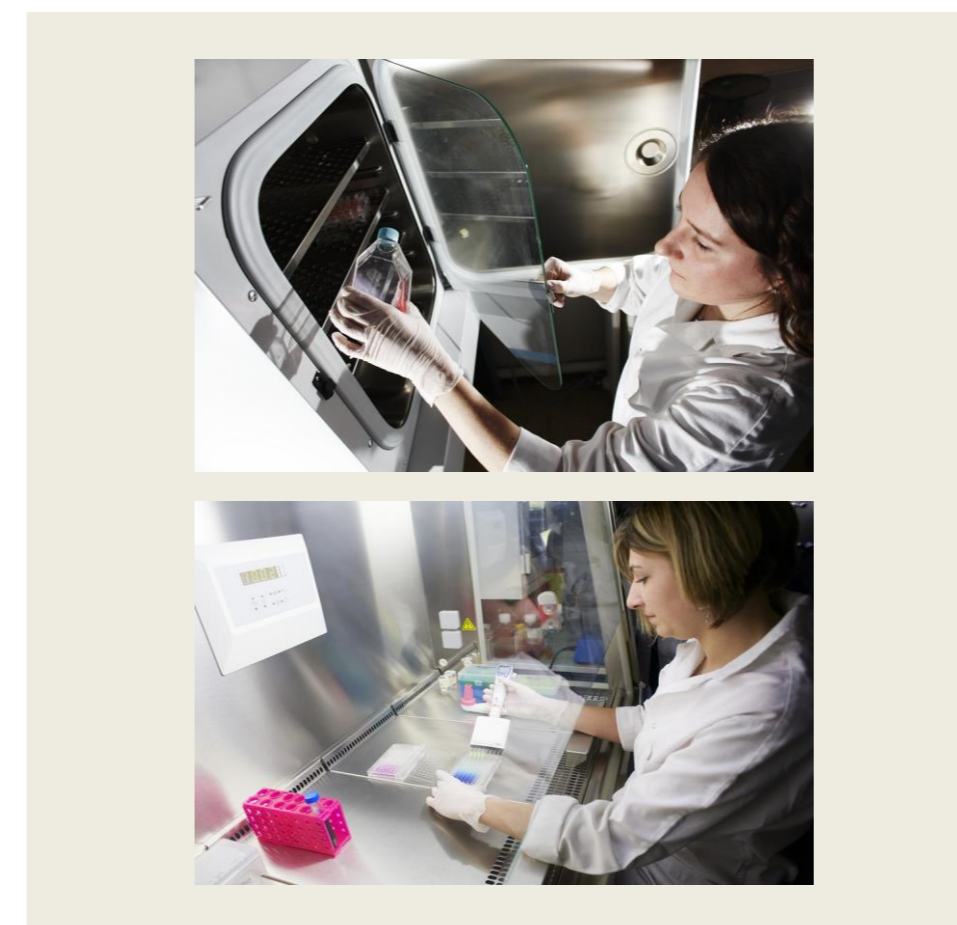
Biological assays

- Cytotoxicity, Pro-Inflammatory response , Oxidative stress
- Colorimetric and fluorimetric assays (Fluoroskan and Multiskan)



Models for *in silico* prediction of toxicity

- Metallic oxides nanoparticles



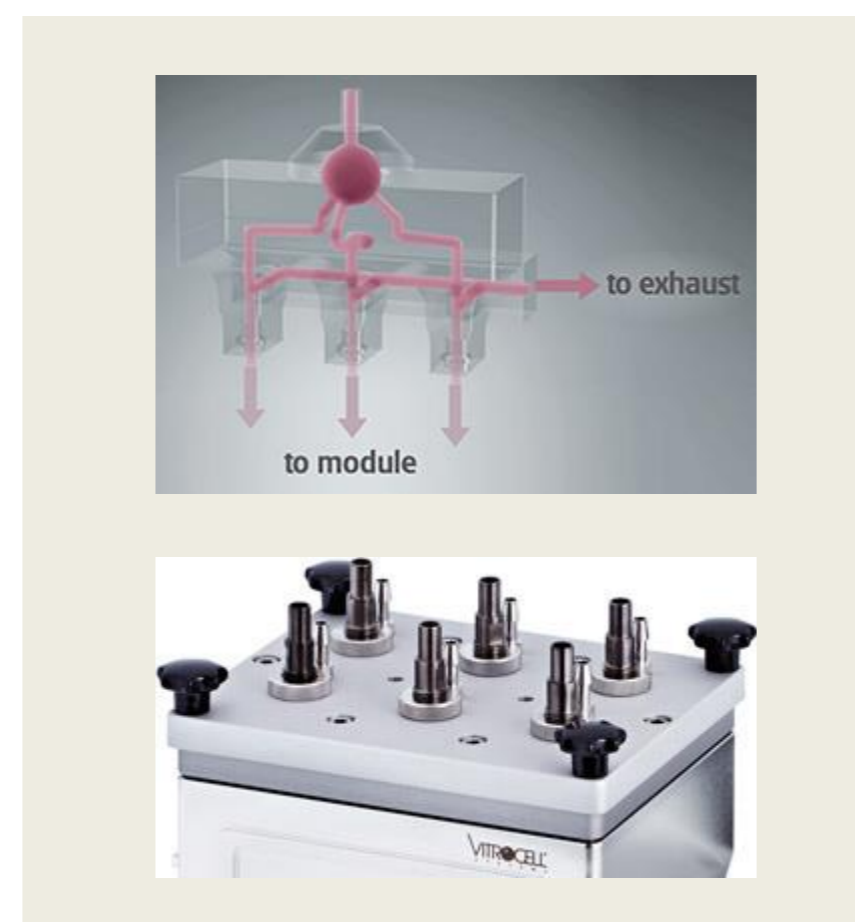
VITROCELL

Aerosol generator

- Micron to nano-sized particles
- Bioaerosol generator

Cell cultures exposure

- Air Liquid Interface
- Cloud exposure



Nanoparticles detection in biological samples

Different matrix (liquids or tissues)

- Respiratory tract fluids
- Sperm, follicular fluid, amniotic fluid

Methodology

- Separation protocols
- Ultra-centrifugation
- Sample preparation for Induced Coupled Plasma analysis



INSPIRING
INNOVATION
SINCE 1816