



ERASMUS COURSE

Nanomaterials for biological and biomedical applications

Δευτέρα 21.5.2018 και
Τετάρτη 23.5.2018
9⁰⁰ - 13⁰⁰

Αίθουσα συνεδριάσεων
& τηλεδιασκέψεων
Τμήματος Φυσικής
4ος όροφος, ΣΘΕ



Αντιγόνη Αλεξάνδρου

Διευθύντρια ερευνών

Laboratoire d'Optique et Biosciences,
Nanoimaging and cell dynamics team,
Ecole Polytechnique, CNRS, INSERM,
Université Paris-Saclay

Content

- Nano-objects for bio-applications (quantum dots, lanthanide nanoparticles, carbon nanotubes, polymeric nanoparticles, ...): properties, characterization, advantages/disadvantages
- Short introduction to biology
- Biological applications: single-molecule imaging in cells, sensing of cell parameters (Ca^{2+} , ROS, pH)
- Biomedical applications (*in vitro* diagnostics, peroperative imaging, drug delivery, nanoparticle - sensitized radiation therapy)