

Understanding Nanomedicine: Introduction and Perspectives

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Abstract

This short course will be focused in the basis of nanoscience and nanotechnology for biological and medical applications. The part 1 of the course will cover some of the biological fundamentals applied in the area, the present proposals and promises of nanotechnology in medicine. The second part will be a discussion related with the principal topics and current applications of nanomedicine. Finally we present the biomaterials and biosensors research work carried out in the Laboratory of Nanobiotecnologyat MICRONA-UV.

General Topics

Part 1.

- 1. Fundamentals of Nanomedicine**
- 2. Nanomedicine history: Proposals and promise**

Part 2.

- 1. Nanomolecular Diagnostics**
- 2. Nanodivices for Medicine and Surgery**
- 3. Nanoparticles for drug delivery**
- 4. Nanomaterials and Tissue Engineering**
- 5. Worldwide development and commercialization of nanomedicine**
- 6. Some ethical considerations**
- 7. MICRONA's contribution to Nanomedicine**