**Graduate Development and manufacturing of Biopharmaceutical and other Biotechnological products**

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**DIRECTED**  
To BSc, MSc, PhD, or professional with expertise in some of the following areas: Biotechnology, Biology, Pharmacy, Engineer or Food and / or Veterinary.

**Access requirement**: Personal Interview or skype

**OBJETIVOS**

The aim of the course is to describe the required activities for the development and manufacturing of Biotechnological products such as recombinant proteins, monoclonal antibodies or extracts treated as New Biotechnological entities, Biosimilars or ingredients in the Pharmaceutical, Medical Device, cosmetic, Fine chemistry and Agro-food sectors.

# DURACIÓN

# 160 h

# INICIO

9 de octubre de 2015

# FINAL

9 de diciembre de 2015

**HORARIO**

De lunes a viernes de 18 a 22 h

# PRECIO

4.500 €

**PROGRAMA**

Bioprocess and analytical development and manufacturing of Biotechnological products

**Block I: Cell Banking and Upstream processing (40h)**

* Strain/Cell line development and Cell Banks
* Fermentation Development
* Primary product recovery
* Training in lab (20 h)

**Block II: Downstream processing (40h)**

* Purification Development
* Training in lab (20 h)

**Block III: Analytical and Formulation development (40h)**

* Analytical development for process development, structural analysis, routine manufacturing and release.
* Formulation development and stability studies
* Training in lab (20 h)

**Block IV: Manufacturing of Biological products (20h)**

* Pilot and large scale Manufacturing of Biological products
* Fill and finish
* Quality control

**Block V Case studies (20h)**

* Case study 1: Development and manufacturing of a recombinant protein in a microbial host
* Case Study 2: Development and manufacturing of a monoclonal antibody in CHO