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| **Preliminary timetable****June 4, 9h00, Campos do Lumiar (FFUL)\***Day 1 (3 h): Preparation of nanoparticles.Catarina Pinto Reis Maria Manuela Gaspar Sandra Simões **June 5, 9h00, Campos do Lumiar (FFUL)\***Day 2 (1 h): Particle size analysis (DLS) and surface charge (ELS) of nanoparticles. Catarina Pinto Reis Maria Manuela GasparJune 6, 9h00, FCUL \*\*Day 3 (2 h): Morphology of nanoparticles by using AFM.Ana Viana Semedo **June 7, 9h00, Campos do Lumiar (FFUL)\***Day 5 (3 h): Quantification of the model drug incorporated into liposomes by spectrophotometric methods.Maria Manuela Gaspar**June 17, 9h00, FFUL\*\*\***Day 6 (2 h): *In silico* models.Nuno SilvaPaulo Paixão**June 18, 9h00, Campos do Lumiar (FFUL)\***Day 6 (3 h): *In vitro* safety assessment.Maria Manuela GasparJune 19, 9h00, FFUL/Campos do LumiarDay 7 (3 h): *In vitro* Efficacy assessment.Maria Manuela de Jesus Guilherme GasparJune 19, 14h00, FFUL/Campos do LumiarDay 21 (3 h): *In vivo* Efficacy assessment.Ana Catarina Beco Pinto Reis Maria Manuela de Jesus Guilherme GasparJune 24, 9h00, FFUL (room to be defined)Day 9 (1.5 h): Scale-up of the manufacturing process of (Nano)medicines.Vítor Hugo Ramos Dias25 to June 27- Tutorial (schedule to be defined with the students)June 28, 9h00, FFUL (room to be defined)Day 10 (1 h): Presentation and discussion of a research project. Ana Catarina Beco Pinto Reis Maria Manuela de Jesus Guilherme GasparNuno Miguel Elvas Neves da SilvaPaulo Jorge Pereira Alves PaixãoSandra Isabel Dias Simões Vítor Hugo Ramos DiasExternal **Preliminary timetable****December 11**Seminar 1: Research and development (R&D) of nanomedicines.8h30, Registration.9h00, *Introduction of R&D of nanomedicines*, Catarina Pinto Reis (FFUL).9h20, *Nanomedicines: from scientific problems to technological solutions*, A. J. Almeida (FFUL).10h00, *Adapting PK principles for nanomedicines*, Paulo Paixão (FFUL).10h40, Coffee-Break.11h00, *A Lab experience in nanotechnology: from the bench to the clinic*, Lino Ferreira (FMUC).12h00, *Translation of cancer nanomedicines*, João Nuno Moreira (FFUC).17h00, *Quality Assurance from research to commercialization*, Dilar Mendes (Incyte) by zoom.Registration link:<https://videoconf-colibri.zoom.us/meeting/register/tJMqduqprz8oGdyzcue9DfTv-Hi1m_aCBpM3>**December 12**Seminar 2: Regulatory framework of the R&D process and pharmaceutical development of a nanomedicine.10h00, *Navigating regulatory challenges in bacteriophages and biologic medicines*, Helena Dordio (Technophage). 11h00, *Drug development: an overview from concepts uses*, Beatriz Lima (FFUL).12h00*, Evolution of new technologies in advanced therapies*, João Gonçalves (FFUL).13h00, Break.14h00, *R&D and regulation in orphan medicines: particularities of nanomedicines*, João Rocha (FFUL).15h00, *Nanomedicines and regulatory environment*, M. João Ribeiro (TripleBlue Pharma Consulting).17h00, Rogério Gaspar (WHO) by zoom.Registration link:<https://videoconf-colibri.zoom.us/meeting/register/tJ0rdeqtrzIuE9CRfB7d7oFd4oW-KiwmIsYf>**December 13**Seminar 3: Characterization methodologies and techniques of pharmaceutical quality attributes of nanomedicines (I).9h00, *Spectroscopic tools for nanomedicines characterization*, Noélia Duarte (FFUL).*10h00, Light scattering techniques for nanoparticles characterization*, José Catita (UFP).11h00, Coffee-Break.11h30, *Basic principles of differential scanning Calorimetry (DSC), thermogravimetric analysis (TGA), differential thermal analysis (DTA) and their importance in nanostructure analysis*, João Pinto (FFUL).12h30, *Atomic force microscopy - a powerful tool in nanomedicine and other nanosciences*, Ana Viana (FCUL).13h30, Break.14h30, *Electron microscopies: from health and bioelectronics to environmental remediation*, Daniela Gomes (FCT-UNL).15h30, *Manufacturing of nanomedicines. From lab to production scale*, João Lopes (FFUL).14h40, *Navigating the Production and Testing of Commercial Injectable Suspensions*, Rodrigo Campos (Hikma). Registration until 14th of November | Nanomedicines: What else?The course is unique in Portugal. It includes two modules. This second module aims to bring together theoretical skills from other PhD Advanced Courses of FFUL, but as a differentiating factor, to especially focus on Nanomedicines from design to its clinical use. It is intended that students will acquire a multidisciplinary knowledge in the field of Nanomedicine and autonomously systematize the existing information based on scientific and technical literature that will support as a working basis for the development of a research project. At the end, the Student will:Consolidate knowledge of the Nanomedicines;Acquire skills in the use of methodologies and techniques for characterization of Nanomedicines;Promote the ability to integrate acquired knowledge in identifying appropriate solutions to problems of interdisciplinary nature;Stimulate the capacity of independent selection and application of advanced experimental techniques to solve problems of scientific and technological nature.Once the laboratory part is completed, student will present and discuss a proposal of a potential nanomedicine to a panel of guests from different fields. Here, the student will improve the ability to publicly and under different forms, display ideas and communicate research findings, by selecting and using the most appropriate and modern communication. |

**June 19, 14h00, Campos do Lumiar (FFUL)\***

Day 21 (3 h): *In vivo* efficacy assessment.

Catarina Pinto Reis

Maria Manuela Gaspar

June 24, 9h00, FFUL\*\*\*

Day 9 (1.5 h): Scale-up of the manufacturing process of (Nano)medicines.

Vítor Hugo Dias

**25 to June 27-** Tutorial (schedule to be defined with the students), FFUL\*\*

June 28, 9h00, FFUL#

**Day 10 (1 h): Presentation and discussion of a research project.**

Catarina Pinto Reis, Maria Manuela Gaspar, Nuno Silva, Paulo Paixão, Sandra Simões and Vítor Hugo Dias.

External

FACULTY OF PHARMACY, UNIVERSITY OF LISBOA

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| Resultado de imagem para horÃ¡rio | Resultado de imagem para local |
| Practical Training\*  | Campus do Lumiar, Estrada do Paço do Lumiar, Building F, GPS, 38º46 14.4 N 9º10 42.6 W |
| AFM Training\*\* | Building C8, FCUL |
| Theorical and Practical Training\*\*\* | Sala A.3.1, FFUL |
| Assessment# | Sala A.3.1, FFUL |

 