2nd TRAINING COURSE, ACTION COST 17-112 PRO EURO DILI NET

RECENT ADVANCES ON STEM CELL RESEARCH AND CELL THERAPIES

Date: 10-11th October 2019

Time: 13:00 of 10th of October until 20:00 of 11th of October

Venue: Faculty of Pharmacy, University of Lisbon. Avenida Professor Gama Pinto, 1649 – 003 Lisboa, Portugal

Overview

The main goal of this course is to address the recent advances in stem cell research and technologies as well as the clinical translational of stem cell-based therapies to the benefit of human health. As such it will gather high quality researchers coming from academia, health care institutions and industry to discuss the new trends and challenges on the emerging field of stem cell biology and cell-based therapy. The course also aims at giving the unique opportunity for younger researchers to network, to exchange ideas and to be inspired by top-level keynote speakers and invited opinion leaders in a truly international environment.

More specifically, the Scientific Program encompasses the current understanding of stem cell reprogramming and advancements in cancer stem cell research, tissue engineering, stem cell transplantation, manipulation of the stem cell genome in a research context, and current trends in regenerative medicine. The course will be organized in 5 topics: stem cell specification and regulation, stem cell engineering, stem cells in disease modelling and drug discovery, stem cells in cancer and cell therapy. Concomitant sessions dedicated to clinical translation will also be included and round-table sessions will offer the opportunity to informally debate issues such as, bioethical implications of stem cell usage.

Learning Objectives

This training course will enable to

- Understand the biology of stem cells, and their potential in biotechnology and biomedical research;
- Recognize cutting-edge stem cell tools and models to tackle human disease;
- Understand how pharmacology, toxicology and biomedical applications benefit from emerging scale-up stem cell technologies.
- Discuss the challenges of developing better stem cell-based therapies;
- Recognize the role and potential of novel cell therapies.

EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

the EU Framework Programme Horizon 2020

SCIENTIFIC PROGRAM (AGENDA)

DAY 1 – 10 OCTOBER 2019

13:00	REGISTRATION

Session 1: Stem Cell Specification and Regulation

13:30- 14:15	Developing Functional Human Liver Tissue from Pluripotent Stem Cells. ***David Hay*** *(MRC, The University of Edinburgh, UK)*
14:15-14:45	To divide or differentiate – the fate of Drosophila neural stem cells. C***atarina Homem*** *(CEDOC, NOVA Medical School, PT)*
14:45-15:45	Selected oral communications
15:45-16:30	COFFEE BREAK

Session 2: Engineering Stem Cells

16:30-17:00	Engineering region-specific brain organoids from iPSCs for disease modelling of Rett Syndrome. ***Margarida Diogo*** *(IBB, ULisboa, PT)*
17:00-18:00	Selected oral communications
18:00-18:30	Engineering stem cells for tendon regeneration approaches. ***Márcia Rodrigues*** *(3Bs, UMinho, PT)*
19:00-19:45	WELCOME RECEPTION

DAY 2 – 11 OCTOBER 2019

9:00-9:45	iPSC-driven drug Discovery of OXPHOS diseases. ***Allessandro Prigione*** *(MDC, Helmzoltz Association, Berlin, DE)*

Session 3: Stem Cells in Disease Modelling and Drug Discovery

9:45-10:15	A novel muscle disorders 3D in vitro system for drug screening and validation. ***Edgar Gomes*** *(iMM, ULisboa, PT)*
10:15-11:15	Selected oral communications
11:15-12:00	COFFEE BREAK

Session 4: Stem Cells in Cancer

12:00-12:30	The future prospects for skin tissue engineering. ***Alexandra Marques*** *(I3Bs, UMinho, PT)*
12:30-13:30	Selected oral communications
13:30–15:00	LUNCH

Session 5: Cell Therapy

15:00-15:30	Delta One T cells: developing a new cellular immunotherapy for cancer. ***Bruno Silva-Santos*** *(iMM, ULisboa, PT)*
15:30-17:00	Selected oral communications
16:30-17:15	COFFEE BREAK

Session 6: Translational Session

17:15-19:15	Stem Cells and Cell Therapies: From Bench to Bedside (Roundtable)
19:15	**Closing Remarks**
20:00	NETWORKING DINNER