CELL THERAPY
FROM THE BENCH
TO THE BEDSIDE AND RETURN

Los Alcázares (Murcia) 15-19 de Julio 2013

Directors:
JOSE MARIA MORALEDÁ JIMENEZ
SALVADOR MARTINEZ PEREZ
DAMIAN GARCIA OLMO
ROBERT SACKSTEIN

More Information and Registration Form:
www.um.es/unimar
Phones 868 88 8207/ 7262/ 3376/ 3360 /3359

INTERNATIONAL SUMMER COURSE.
MURCIA UNIVERSITY 2013

CELL THERAPY FROM THE BENCH TO THE
BEDSIDE AND RETURN

Place: Los Alcázares. Murcia. Spain

Credits: 1 credit  ECTS

Dates: July 15-19, 2013

Aims
The aim of this course is the diffusion of knowledge about stem cells and their therapeutic possibilities, with a special emphasis on Adult Stem Cells such as Hematopoietic Stem Cells and Mesenchymal Stems, and their current applications in the field of Regenerative Medicine. The course is intended to provide a forum for scientific discussion with basic researchers and clinical experts in cellular therapy, and to set out the achievements and challenges in this exciting and growing area of clinical medicine therapy.

Specific Course Objectives are:
To analyze in depth the different types of stem cells, their biological properties, their laboratory manipulation and their clinical use.
To learn about the new types of hematopoietic cell transplantation, and new approaches of immune modulation.
To discuss the present status of preclinical studies and clinical trials of stem cell therapy for repair of damaged tissues and organs.
Monday 15. Bone Marrow Stem Cells: Hematopoietic Stem Cells (HSC) and Hematopoietic Stem Cell Transplantation (HSCT)

Morning Session

09:00-09:30 h. Open Session.
Hon. Ms. Maria Angeles Palacios Sanchez.
Health Council of the Autonomous Community of the Region of Murcia. Murcia, Spain.
Hon. Mr. Jose Antonio Cobacho Gómez.
Rector of the University of Murcia. Murcia, Spain.
Hon. Mr. Antonio L. Andreu Pérez.
Director General, Institute of Health Carlos III. Madrid, Spain.

09:30-10:00 h. The Biology of the Hematopoietic Stem Cell.
Carmen L. García de Insausti, MD. PhD
Hematology Department. Institute of Biomedical Research of Murcia - IMIB, Virgen de la Arrixaca University Hospital. University of Murcia. Murcia, Spain.

10:00-10:30 h. Obtaining Hematopoietic Progenitors: Cellular Selection.
Miguel Blanquer, MD. PhD
Hematology Department. Institute of Biomedical Research of Murcia - IMIB, Virgen de la Arrixaca University Hospital. University of Murcia. Murcia, Spain.

10:30-11:00 h. Coffee break

11:00-11:30 h. HSCT: Technique and Complications.
Prof. Jose M. Moraleda.
Professor of Medicine. University of Murcia. Chief, Department of Haematology and HSCT Program. Institute of Biomedical Research of Murcia - IMIB, Virgen de la Arrixaca University Hospital. Murcia, Spain.

Vanderson Rocha, MD, PhD.
Scientific Director of Eurocord Registry. Department of Hematology BMT, Hospital Saint Louis, University of Paris. Paris, France.

12:15-13:00 h. Principles and Practice of Non-myeloablative HSCT
Prof. Sergio Giralt
Professor of Medicine Weill Cornell College of Medicine. Chief, Adult Bone Marrow Transplant Service. Division of Hematologic Oncology. Memorial Sloan-Kettering Cancer Center. New York, NY, USA.

13:00-15:00 h. Lunch

Afternoon Session

15:00-15:30 h. Short Lecture: Curing Hemoglobinopathies.
Prof. Franco Locatelli.
President of the Italian association for Pediatric Hematology and Oncology. Research Center, Bambino Gesù Children Hospital. Rome. Rome, Italy.

Debate session: Histocompatibility Antigen (HLA) Typing, HSC Donation, and Registry Issues.
Chair: Prof. Jose M. Moraleda.
Professor of Medicine. University of Murcia. Chief, Department of Haematology and HSCT Program. Institute of Biomedical Research of Murcia - IMIB, Virgen de la Arrixaca University Hospital. Murcia, Spain.

15:30-15:40 h. The Spanish Model.
Prof. Gregorio Garrido.
Head of Service, Spanish National Transplant Organization (ONT). Madrid, Spain.

15:40-15:50 The French Registry.
Vanderson Rocha, MD, PhD.
Scientific Director of Eurocord Registry. Department of Hematology BMT, Hospital Saint Louis, University of Paris. Paris, France.

15:50-16:00 h. The Great Britain Experience.
Prof. Alejandro Madrigal.
Tuesday 16. New HSCT Approaches: HSCT Immunotherapy

Morning Session

09:00-09:45 h. The Immunotherapeutic Role of HSCT.
   Prof. Andrea Bacigalupo.
   Head Department of Hematology and Stem Cell Transplant Unit. Ospedale San Martino. Genoa. Italy.

09:45-10:15 h. Haploidentical Transplants and Role of NK Immunotherapy.
   Prof. Franco Locatelli.
   President of the Italian association for Pediatric Hematology and Oncology. Research Center, Bambino Gesù Children Hospital. Rome, Italy.

10:30-11:00 h. Coffee break

11:00-11:45 h. New Strategies for Post-transplant Immunomodulation.
   Prof. Alejandro Madrigal.
   European Bone Marrow Transplant Association President. London. U.K.
   Scientific Director of The Anthony Nolan Trust. Chair of Haematology, Department of Haematology. The Royal Free and University College Medical School. London, UK.

11:45-12:30 h. Unrelated Donor Transplants. The MSK Experience in HSCT Immunomodulation.
   Prof. Sergio A. Giralt.
   Professor of Medicine Weill Cornell College of Medicine. Chief, Adult Bone Marrow Transplant Service. Division of Hematologic Oncology. Memorial Sloan-Kettering Cancer Center. New York, NY, USA.

12:30-14:30 h. Lunch

Afternoon Session

14:30-16:00 h. Debate session: Harnessing GVL Effect while Avoiding GVHD. What is the best URD transplant?
   Chair: Prof. Robert Sackstein.
   Professor, and Director of the Program of Excellence in Glycoscience, Harvard Medical School, Boston, MA, USA.

   Discussants:
   Prof. Alejandro Madrigal: URD unmanipulated SCT.
   Prof. Franco Locatelli: T-selected Haploidentical transplant.
   Prof Sergio Giralt: Double cord transplant.
   Prof. Vanderson Rocha: Single UC transplant.
   Prof. Andrea Bacigalupo: Lymphocyte infusions.
**Wednesday 17, Morning Session: Bone Marrow Stem Cells: Mesenchymal Stem Cells (MSC) and Mesenchymal Stem Cell Transplantation**

09:00-09:30 h. **The stem Cell Niche.**  
**Prof. Agustín Zapata.**  
Professor of Cellular Biology. Complutense University of Madrid. Madrid, Spain.

09:30-10:00 h. **The Regulation of the Stem Cell Microenvironment.**  
**Simon Mendez-Ferrer, PhD.**  
National Center for Cardiovascular Research (CNIC). Madrid, Spain.

10:00-10:45 h. **MSC: A New Paradigm for Cell Immunomodulation.**  
**Prof. Antonio Uccelli.**  
Professor of Neurology. Neuroimmunology Unit. Dept of Neurosciences, University of Genova. Genova, Italy.

10:45-11:15 h. **Coffee break**

11:15-12:30 h. **Stem Cell Trafficking: Biology and Manipulation via GPS.**  
**Prof. Robert Sackstein.**  
Professor, and Director of the Program of Excellence in Glycoscience, Harvard Medical School, Boston, MA, USA.  
**Dolores Lopez Lucas PhD. Prof. Jose M. Moraleda.**  

12:30-13:00 h. **The production of MSC for clinical use: GMP cell facilities.**  
**Prof. Ana Sanchez Garcia.**  
Professor of Physiology. School of Medicine. Institute of Biology and Molecular Genetics (IBGM). University of Valladolid, Valladolid. Spain.

13:00-15:00 h. **Lunch**

**Afternoon Session: Induced Pluripotent Stem Cells (iPSC)**

15:00-15:30 h. **iPSC as a Therapeutic Tool.**  
**Prof. Angel Raya.**  

15:30-16:00 h. **iPSC and Gene Therapy for Genetic Diseases.**  
**Prof. Juan Bueren.**  
Head of the Division of Hematopoiesis and Gene Therapy Division CIEMAT. University of Madrid. Madrid, Spain.
Thursday 18. Stem Cell Therapy (SCT). Clinical Trials in Non-neurologic Diseases

Morning Session

09:00-09:30 h. SCT in Cardiac Diseases.
Prof. Felipe Prósper.

09:30-10:00 h. SCT in Diabetes Mellitus and its Complications.
Prof. Bernat Soria.
Director of the Stem Cells Department of the Andalusian Center for Molecular Biology and Regenerative Medicine (CABIMER). University Pablo de Olavide. Seville, Spain.

10:00-10:30 h. SCT to Improve Surgical Healing.
Prof. Damián García-Olmo.
Professor of Surgery. Director of the Cell Therapy Unit and Head of the Colorectal Surgery Unit. La Paz University Hospital. Autónoma University of Madrid. Madrid, Spain.

10:30-11:00 h. Coffee break

11:00-11:30 h. SCT for Bone Repair.
Prof. Javier García-Sancho.
Professor of Physiology. School of Medicine. Institute of Biology and Molecular Genetics (IBGM). University of Valladolid. Valladolid, Spain.

11:30-12:00 h. SCT for Cartilage Repair.
Prof. Pedro Guillén.
Clinical Research Unit, CEMTRO Hospital. Madrid, Spain.

12:00-12:30 h. SCT for Treatment of Transplant Rejection and GVHD.
Fermin Sanchez-Guijo, MD.
Hematology Department. University Hospital of Salamanca. University of Salamanca. Salamanca, Spain.

13:00-15:00 h. Lunch

Afternoon Session

15:00-15:30 h. SCT in Ophthalmology.
Prof. Margarita Calonge.
Professor of Ophthalmology. Director, Ocular Immunology Unit, IOBA, University of Valladolid. Valladolid, Spain.

15:30-16:00 h. SCT in Odontology.
Prof. Francisco J. Rodríguez-Lozano.
Friday 19. Stem Cell Therapy (SCT). Clinical Trials in Neurologic Diseases

Morning Session

09:00-09:30 h. The Neural Stem Cell niche.
Prof. Isabel Fariñas.

09:30-10:00 h. SCT in Parkinson’s Disease.
Prof. Juan José Toledo.
Professor of Physiology. Director of the Department of Medical Physiology and Biophysics. Institute of Biomedical Research of Seville. IBiS, Virgen del Rocio Hospital/CSIC/University of Seville. Seville, Spain.

10:00-10:30 h. SCT in ALS.
Letizia Mazzini, MD.
Head of the tertiary ALS Center. Department of Neurology, Eastern Piedmont University, Maggiore della Carità Hospital. Novara, Italy.

10:30-11:00 h. Coffee break

11:00-11:30 h. SCT in Neurodegenerative Diseases (ND). Results in Animal Models.
Prof. Salvador Martinez.

11:30-12:00 h. SCT for other ND-Neuromuscular diseases.
Prof. Antonio Uccelli.

12:00-12:30 h. Stem cell differentiation for cell replacement strategies in ND.
Prof. Josep M. Canals.
Professor of Cellular Biology. Dept. of Cell Biology, Immunology and Neuroscience. University of Barcelona. Barcelona, Spain.

13:00-15:00 h. Lunch

Afternoon Session

15:00-16:00 Debate session: Stem Cell Therapy pros and cons. How do we move ahead?
Prof. Agustín Zapata.
Professor of Cellular Biology. Complutense University of Madrid. Madrid, Spain.

Discussants:
Prof. Salvador Martinez.
Prof. Antonio Ucelli.
Prof. Felipe Prósper.
Prof. Letizia Mazzini
Prof. Robert Sackstein.