

Place: Hotel 525. C/ del Río Borines, 58. Los Alcázares. Murcia. Spain.

Duration: 25 hours.

Max enrollment: 100 students.

Price: 160 €. (Lunch included).

REGISTRATION RULES

Please complete the Registration Form at the official website:
<http://www.um.es/unimar>.

Payment Methods: Credit Card (Website)

Cash – only in person: Download the Payment form. Fill in the form and return it with your payment to Universidad Internacional del Mar.

Banks: SABADELLCAM, BANCO MARE NOSTRUM, CAJAMAR and BANCO SANTANDER. Once payment is made you will be enrolled in the course. Students must be enrolled and have a regular attendance to obtain the diploma or its equivalent.

This course enables you to obtain elective credits at the Universidad of Murcia, in accordance with the University's academic regulations.

Students registered at other universities must provide the Credit Recognition requirements for transfer of credit toward their degree program at their home university (certificate, diploma, program...)

The Course has been declared of Scientific and Medical Interest by the Murcian Public Health System.

SUMMARY

Stem cells (embryonic, induced pluripotent and adult) are a potentially unlimited source of cells for research or for clinical use in transplantation. The ability of these cells to improve function or repair damaged tissue in animal models of disease has contributed to high expectations in the development of new therapies for human diseases that currently have no cure such as diabetes, Parkinson's and ischemic or degenerative diseases. It seems appropriate to organize a forum for knowledge expansion of this type of cells, their biological characteristics, techniques of collection and handling in the laboratory and, particularly, its current and future therapeutic options, with scientists in basic science and clinic. This will get an objective, critical and useful information for the assistants.

Target Group

Students, graduates and others interested in the subject.



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UNIVERSIDAD DE MURCIA

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E INNOVACIÓN

Patrocina:



Colabora:



SOCIEDAD ESPAÑOLA DE
HEMATOLOGÍA Y HEMOTERAPIA



GILEAD



MSD



UNIVERSIDAD
INTERNACIONAL
DEL MAR



ACTIVIDADES DE VERANO 2015

CELL THERAPY FROM THE BENCH TO THE BEDSIDE AND RETURN

Directors

Prof. José M. Moraleda Jiménez.

Prof. Robert Sackstein.

Prof. Salvador Martínez Pérez.

Prof. Damián García Olmo.

LOS ALCÁZARES
from July 13rd to July 17th



CELL THERAPY FROM THE BENCH TO THE BEDSIDE AND RETURN

Monday 13

BONE MARROW STEM CELLS. HEMATOPOIETIC STEM CELL TRANSPLANTATION (HSCT)

- 09:00 h. Open Session.
Hon. Ms. Catalina Lorenzo Gabarrón. Health Council of the Autonomous Community of the Region of Murcia. Spain.
Hon. Mr. José Orihuela Calatayud. Rector of the University of Murcia. Spain.
Dr. Mr. Javier Arias Díaz. Sub-director General of Research on Cell Therapy and Regenerative Medicine. National Institute of Health Carlos III. Madrid, Spain.
- 09:30 h. The Biology of the Hematopoietic Stem Cell.
Prof. Camen L. García de Insausti. General Secretary. Spanish Society of Hematology and Hemotherapy (SEHH). Madrid, Spain.
- 10:00 h. Obtaining Hematopoietic Progenitors: Cellular Selection.
Prof. Miguel Blanquer. Hematology Department. HCUVA-IMIB. University of Murcia. Spain.
- 10:30 h. Coffee Break.
- 11:00 h. HSCT: Technique and Complications.
Prof. José M. Moraleda. Professor of Medicine. University of Murcia. Chief, Department of Hematology and HSCT Program, HCUVA-IMIB. Murcia, Spain.
- 11:30 h. Umbilical Cord Blood Transplantation.
Prof. Jaime Sanz. Clinical Hematology & Hematopoietic Cell Transplantation Unit. La Fé University Hospital. Valencia, Spain.
- 12:15 h. Principles and Practice of Non-myeloablative HSCT.
Prof. Stephen Mackinnon. Professor of Medicine. Director Bone Marrow and Stem Cell Program. Department of Haematology, Royal Free Hospital. University College Hospital. London, UK.
- 13:00 h. Lunch.
- 14:30 h. The Importance of HLA in BMT. Basic and Clinical Aspects.
Prof. Enric Carreras. Medical Director of Spanish Registry of Bone Marrow Donors (REDMO) and the José Carreras Foundation Against Leukaemia. Barcelona, Spain.
- 15:00 h. HSC Donation. The Spanish Model.
Prof. Gregorio Garrido. Head of Service, Spanish National Transplant Organization (ONT). Madrid, Spain.
- 15:30 h. Working Session: Cell Selection Techniques and Practice.
 Chairs: **Prof. José M. Moraleda. Prof. Miguel Blanquer. Prof. Ana M. García Hernández.** Hematology Department and HSCT Program. HCUVA-IMIB. University of Murcia. Spain.

Tuesday 14

NEW HSCT APPROACHES: HSCT IMMUNOTHERAPY

- 09:00 h. New Insights in Cell Therapy. The Hematologist Point of View.
Prof. Alejandro Madrigal. Scientific Director of The Anthony Nolan Trust. Chair of Hematology, Department of Hematology. The Royal Free and University College Medical School. London, UK.
- 10:00 h. Immunobiology of Allogeneic Transplantation.
Prof. Jeffrey J. Mollrem. Professor of Medicine. Chief, Section of Transplantation Immunology, Department of Stem Cell Transplantation and Cellular Therapy, Division of Cancer Medicine, MD Anderson Cancer Center, Houston. Texas, USA.
- 11:00 h. Coffee Break.
- 11:30 h. The Role of Pre and Post-Transplant Immunomodulation.
Prof. José Antonio Pérez Simón. Professor of Hematology. Department of Hematology. Institute of Biomedicine, Virgen del Rocío University Hospital. University of Sevilla. Spain.
- 12:15 h. Umbilical Cord Transplants and VH.
Prof. Rafael Duarte Palomino. Haematopoietic Transplant Program, Department of Hematology. University Hospital Puerta de Hierro. Madrid, Spain.

- 13:00 h. Lunch.
- 15:00 h. Debate Session: Harnessing GVL Effect while Avoiding GVHD. New Strategies for Cure.
 Chair: **Prof. José M. Moraleda.**
 - T and NK Based New Immunotherapeutic Approaches.
Prof. Alejandro Madrigal.
 - In Vivo T-Depleted STC.
Prof. Stephen Mackinnon.
 - Regulation of T-Cell Trafficking to Control GVHD.
Prof. Robert Sackstein.
 - CAR-T Cells: Harnessing Immunotherapy.
Prof. Jeffrey J. Mollrem.

Wednesday 15

MESENCHYMAL STEM CELLS (MSC) AND INDUCED PLURIPOTENT STEM CELLS (IPSC). SCIENTIFIC BASIS FOR ITS THERAPEUTIC USE

- 09:00 h. The Stem Cell Niche.
Prof. Agustín Zapata. Professor of Cellular Biology. Complutense University of Madrid. Spain.
- 09:30 h. The Regulation of the Stem Cell Microenvironment.
Prof. Simón Méndez-Ferrer. National Center for Cardiovascular Research (CNIC). Madrid, Spain.
- 10:00 h. MSC: A New Paradigm for Cell Immunomodulation.
Prof. Antonio Uccelli. Professor of Neurology. Neuroimmunology Unit. Department of Neuroscience, University of Genova. Italy.
- 10:30 h. Coffee Break.
- 11:00 h. iPSC as a Therapeutic Tool.
Prof. Angel Raya. ICREA Research Professor. Institute for Bioengineering of Catalonia (IBEC). Director Center of Regenerative Medicine in Barcelona (CMRB). Barcelona, Spain.
- 11:30 h. iPSC and Gene Therapy for Genetic Diseases.
Prof. Juan Bueren. Head of the Division of Hematopoiesis and Gene Therapy, CIEMAT. University of Madrid. Spain.
- 12:30 h. Lunch.
- 14:30 h. Stem Cell Trafficking. GPS Guided MSC Migration.
Prof. Robert Sackstein. Professor and Director of the Program of Excellence in Glycobiology, Harvard Medical School. Boston, MA, USA.
- 15:30 h. Working Session: MSC Microscopy and Culture. Poster Session and Discussion.
 Chairs: **Prof. David García Bernal. Prof. M^a Dolores López Lucas. Prof. José Eduardo Millán Rivero.** Hematology Department and HSCT Program. HCUVA-IMIB. University of Murcia. Spain.

Thursday 16

STEM CELL THERAPY (SCT) AND TISSUE ENGINEERING. CLINICAL TRIALS IN NON-NEUROLOGIC DISEASES

- 09:00 h. SCT in Cardiac Diseases.
Prof. Felipe Prósper. Director of Cell Therapy Department. Co-director Hematology Department. University of Navarra. Spain.
- 09:30 h. SCT in Diabetes Mellitus.
Prof. Bernat Soria. Director of the Stem Cells Department of the Andalusian Center for Molecular Biology and Regenerative Medicine (CABIMER). University Pablo de Olavide. Sevilla, Spain.
- 10:00 h. SCT for Osteoarticular Repair.
Prof. Javier García-Sancho. Professor of Physiology, University of Valladolid. Institute of Biology and Molecular Genetics (IBGM). Valladolid, Spain.
- 10:30 h. Coffee Break.
- 11:00 h. SCT for Cartilage Repair.
Prof. Pedro Guillén. Clinical Research Unit, CEMTRO Hospital. Madrid, Spain.
- 11:30 h. SCT to Improve Healing in Surgery.
Prof. Damián García Olmo. Professor of Surgery. Chief of Department of Surgery. Fundación Jimenez Diaz University Hospital. Autonomous University of Madrid. Spain.

- 12:00 h. SCT in Odontology.
Prof. Fco. Javier Rodríguez-Lozano. Professor of Dentistry, University of Murcia. HCUVA-IMIB. Murcia, Spain.
- 12:30 h. SCT for Treatment of Transplant Rejection and GVHD.
Prof. Fermín Sánchez-Guijo. Hematology Department. University Hospital of Salamanca. University of Salamanca. Spain.
- 13:00 h. Lunch.
- 15:00 h. Stem Cell Based Organ Engineering.
Prof. M^a Eugenia Fernández Santos. Technical Director of the Cell Production Unit. Gregorio Marañón University Hospital. Research Institute Gregorio Marañón. Madrid, Spain.
- 15:30 h. Stem Cell Based New Strategies.
Prof. Massimo Dominici. Professor in Oncology and Hematology. Laboratory of Cell Biology and Advanced Cancer Therapy. President International Society of Cellular Therapies (ISCT). University of Modena and Reggio Emilia. Modena, Italy.

Friday 17

STEM CELL THERAPY (SCT). CLINICAL TRIALS IN NEUROLOGIC DISEASES

- 09:00 h. The Neural Stem Cell Niche.
Prof. Isabel Fariñas. Professor of Cellular Biology. Department of Cellular Biology. University of Valencia CIPF. Valencia, Spain.
- 09:30 h. SCT in Parkinson's Disease.
Prof. Juan José Toledo. Professor of Physiology. Director of the Department of Medical Physiology and Biophysics. IBiS, Virgen del Rocío Hospital/CSIC/University of Sevilla. Spain.
- 10:00 h. Autologous Bone Marrow Derived Stem Cells (HSC and MSC) for the Treatment of Multiple Sclerosis.
Prof. Antonio Uccelli.
- 10:30 h. Coffee Break.
- 11:00 h. The Neurovascular Unit in CNS Diseases: A Natural Target for Cell Therapy.
Prof. Salvador Martínez. Professor of Human Anatomy and Embryology. Experimental Embryology Lab. Institute of Biomedical Research of Murcia - IMIB. Department of Human Anatomy and Psychobiology. University of Murcia. Spain.
- 11:30 h. SCT for Spinal Cord Injury.
Prof. Jesús Vaquero. Professor of Neurosurgery. Autonomous University of Madrid. Director of the Neuroscience Research Unit, Puerta de Hierro-Majadahonda University Hospital. Madrid, Spain.
- 12:00 h. Stem Cell Differentiation for Cell Replacement Strategies in Huntington Disease.
Prof. Raquel Martín. Professor of Neuroscience. Department of Cell Biology, Immunology and Neuroscience. University of Barcelona. Spain.
- 13:00 h. Lunch.
- 15:00 h. Debate Session: MSC Therapy Pros and Cons. Where to Go and Regulatory Aspects.
 Chair: **Prof. Robert Sackstein and Agustín Zapata.**
Prof. Natividad Calvente. Associate Director Policy/Govern Relations. Merck Sharp and Dome. Madrid, Spain.
Prof. Sol Ruiz. Head. Unit of Biotechnology and Advanced Therapies. AEMPS. Madrid, Spain.
Prof. Massimo Dominici.
Prof. Augusto Silva. Associate Director Policy/Govern Relations. Merck Sharp and Dome. Madrid, Spain.
Prof. Jesús Fernández Crespo. Director National Institute of Health Carlos III Madrid, Spain.
- 16:00 h. Closing ceremony and awarding of certificates.
Prof. Jesús Fernández Crespo.