

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

**Duration:** 30 hours

**Max enrollment:** 100 students

**Price:** 160 € (Lunch included)

#### REGISTRATION RULES

Please complete the Registration Form at the official website: <https://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: Banco Sabadell, Bankia, 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.

#### Summary

Stem cells whether at the embryonic or induced pluripotent adult, are a potentially unlimited source of cells for research or for clinical use in transplantation

The enormous advances in stem cell research have generated high expectations in the development of new therapies to repair or regenerate damaged tissues. In recent years the use of genetically modified CAR-T cells has led to impressive good results in hematologic malignancies. Also, new cell and gene therapies have real prospects to cure some congenital anemias and coagulation disorders like Hemophilia's. These are the new paradigms of personalized and precision medicine. However, there are unsolved issues regarding safety, efficacy, adequate management and manufacture of a "living drug", as well as economic concerns of these expensive therapies. It seems therefore very appropriate to organize a scientific forum for discussing the present and the future of these promising new therapies with internationally recognized experts in the field. This will result in a useful learning and unique experience for attendees.

#### CREDIT RECOGNITION

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 Public Health System of Murcia**

#### Target Group

Students, graduates and others interested in the subject.

#### Directors

**Prof. José María Moraleda Jiménez.** Professor of Medicine. University of Murcia. Head Dpt. of Hematology and HSCT Program. Institute of Biomedical Research - IMIB, Vigen de la Arrixaca University Hospital. Murcia, Spain.

**Prof. Damián García Olmo.** Professor of Surgery. Chief of Departament of Surgery. Fundación Jiménez Díaz University Hospital. Autonomus University of Madrid, Spain.

**Prof. Robert Sackstein.** Senior VP for Health Affairs & Dean, Herbert Wertheim College of Medicine Florida International University. Miami. FL, USA..

**Prof. Salvador Martínez Pérez.** Director Institute of Neurosciences. UMH-CSIC. Professor of Human Anatomy and Embryology. University Miguel Hernández. Alicante, Spain.



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UNIVERSIDAD DE MURCIA  
VICERRECTORADO DE EMPLEO, EMPRENDIMIENTO Y SOCIEDAD

#### PATROCINA



#### COLABORA



# CELL THERAPY FROM THE BENCH TO THE BEDSIDE AND RETURN

#### Directors

Prof. José María Moraleda Jiménez  
Prof. Damián García Olmo  
Prof. Robert Sackstein  
Prof. Salvador Martínez Pérez



Los Alcázares  
Del 8 al 12 de Julio de 2019



Actividades y Cursos de Verano  
36ª edición 2019

UNIVERSIDAD DE MURCIA



## 08/Monday

### BONE MARROW STEM CELLS. HEMATOPOIETIC STEM CELL TRANSPLANTION

Chair: **Prof. José M. Moraleda**. Professor of Medicine. IMIB-Arrixaca. University of Murcia, Spain.

#### 09:00 h. Open Session.

Rector of the University of Murcia, Spain. Health Council of the Autonomous Community of the Region of Murcia, Spain.

#### 09:30 h. The Biology of the Hematopoietic Stem Cell.

**Prof. Agustín Zapata González**. Professor of Cell Biology. Complutense University of Madrid, Spain.

#### 10:00 h. Procurement of Hematopoietic Progenitors: Cellular Selection.

**Prof. Miguel Blanquer Blanquer**. Hematology Department, Institute Research IMIB-Arrixaca, Virgen de la Arrixaca University Hospital. University of Murcia, Spain.

#### 10:30 h. Hematopoietic cell transplantation: cell therapy to cure haematological diseases.

**Prof. José María Moraleda Jiménez**. Professor of Medicine. University of Murcia. Head Dpt. of Hematology and HSCT Program. Institute of Biomedical Research of Murcia-IMIB, Vigen de la Arrixaca University Hospital. Murcia, Spain.

#### 11:00 h. COFFEE BREAK.

#### 11:30 h. The HLA system, T cells, APC, NK cells. Understanding the immune system.

**Prof. Alejandro Madrigal Fernández**. Scientific Director of The Anthony Nolan Trust. Chair of Hematology. The Royal Free and University College Medical School. London, UK.

#### 12:00 h. Graft versus host disease and GVL. The Jekyll and Hyde of allotransplantation.

**Prof. José Antonio Pérez Simón**. Professor of Hematology. Head Hematology Department. Institute of Biomedicine, Virgen del Rocío University Hospital. University of Sevilla, Spain.

#### 12:30 h. Haploidentical transplants. Past, present and future.

**Prof. Fabio Ciceri**. Department of Hematology. IRCCS Ospedale San Raffaele. Vita-Salute San Raffaele. Milan, Italy.

#### 13:30 h. LUNCH.

#### 15:00 h. Natural killer cell therapy for pediatric solid tumors: from the bench to the bedside and back to the bench.

**Prof. Antonio Pérez Martínez**. Head Department of Pediatric Hematology. University Hospital La Paz. Madrid, Spain.

#### 15:30 h. Hematopoietic Stem Cell transplantation. The way to cure HIV?

**Prof. Rafael Duarte Palomino**. Head Clinical Hematology. University Hospital Puerta de Hierro. Madrid, Spain.

#### 16:00 h. Debate session: Umbilical cord banks use.

Chair: **Prof. Alejandro Madrigal Fernández**. Scientific Director of The Anthony Nolan Trust. Chair of Hematology. The Royal Free and University College Medical School. London, UK.

#### What is an umbilical cord blood bank. Mission and perspectives.

**Prof. Sergi Querol Giner**. Director Banc de Sang y Teixits. Barcelona, Spain.

#### The Spanish UCB plan.

**Prof. Jorge Gayoso Cruz**. Medical Associate. National Transplant Organization (ONT). Madrid, Spain.

#### Sustainability of academic facilities procuring and processing human cells for therapeutic use.

**Prof. Christian Chabannon**. Professor of Cell Biology. Aix Marseille University. Chair EBMT Cell Therapy & IB WP. France.

## 09/Tuesday

### IMMUNE EFFECTOR CELL APPROACHES TO CURE CANCER

Chair: **Prof. Robert Sackstein**. Senior VP for Health Affairs and Dean, Herbert Wertheim College of Medicine Florida International University, USA.

#### 09:00 h. CAR-T cells. Basic principles and clinical Pharmacology.

**Prof. Irene García Cadenas**. Hematology Dpt. Hospital Sant Pau. Institut Josep Carreras. University of Barcelona, Spain.

#### 09:30 h. Novartis CAR-T cells manufacture and results in leukemia and lymphoma. What is next?

**Dra. Mónica Jiménez Hernández**. Therapeutical Area Manager. Novartis. Barcelona, Spain.

#### 09:50 h. Kite in the future of CAR-T cell therapy.

**Dra. Margarida Pallá García**. Medical Manager Cell Therapy, Oncology Gilead Sciences. Madrid, Spain.

#### 10:10 h. Celgene CAR-T cells manufacture and results in myeloma. What is next?

**Dra. Marta Durán Delmàs**. Associate Medical Director. Celgene. Madrid, Spain.

#### 10:30 h. Advanced cell therapy manufacture. The Miltenyi Biotec approach.

**Dr. José Luis Mateos Sanz**. Clinical Business Manager. Miltenyi Biotec. Madrid, Spain.

#### 10:50 h. COFFEE BREAK

#### 11:20 h. CAR-T cells against solid tumours.

**Prof. Sònia Guedán Carrió**. Hospital Clinic. Institut Josep Carreras. University of Barcelona, Spain.

#### 11:50 h. CAR-T cells in academic centres. The experience of the Hospital Clinic.

**Prof. Álvaro Urbano-Ispizua**. Hospital Clinic. Institut Josep Carreras. University of Barcelona, Spain.

#### 12:20 h. CAR-T CD44v6 against acute myeloid leukemia and multiple mieloma.

**Prof. Fabio Ciceri**. Department of Hematology. IRCCS Ospedale San Raffaele. Vita-Salute San Raffaele. Milan, Italy.

#### 12:50 h. The future of Immune Effector cell therapy (IET). Do we need standards? Does the regulation of IET affect the practice of SCT?

**Prof. Christian Chabannon**. Professor of Cell Biology. Aix Marseille University. Chair EBMT Cell Therapy & IB WP. France.

#### 13:20 h. LUNCH.

#### 15:00 h. CAR-T cells for Hodgkin's lymphoma.

**Prof. Javier Briones Meijide**. Hematology Dpt. Hospital Sant Pau. Institut Josep Carreras. University of Barcelona, Spain.

#### 15:30 h. Glycoengineering CAR-T cells. Improving delivery to bone marrow.

**Prof. Robert Sackstein**. Senior VP for Health Affairs & Dean, Herbert Wertheim College of Medicine Florida International University. Miami. FL, USA.

#### 16:00 h. Debate session: Are we going to cure cancer with CAR-T cells?

Chair: **Prof. José María Moraleda Jiménez**. Discussants: **Prof. Robert Sackstein**, **Prof. Fabio Ciceri**, **Prof. Christian Chabannon**. **Prof. Sònia Guedán Carrió**.

## 10/Wednesday

### MESENCHYMAL STEM CELLS (MSC), INDUCED PLURIPOTENT STEM CELLS (iPSC), GENE THERAPY: SCIENTIFIC BASIS FOR ITS THERAPEUTIC USE

Chair: **Prof. José M. Moraleda**. Professor of Medicine. IMIB-Arrixaca. University of Murcia, Spain.

#### 09:00 h. MSC properties: the biological basis to become a cell medicine.

**Prof. Agustín Zapata González**. Professor of Cell Biology. Complutense University of Madrid, Spain.

#### 09:30 h. The extrinsic regulation of haematopoietic stem cells as a therapeutic target.

**Prof. Simón Méndez-Ferrer**. Department of Haematology, NHS-Blood and Transplant. Cambridge Biomedical Campus. University of Cambridge, UK.

#### 10:00 h. Fucosylated mesenchymal stem cells to establish tissue Immunohomeostasis.

**Prof. David García Bernal**. Cell Therapy Unit and HSCT Program. Institute of Biomedical Research of Murcia -IMIB, Virgen de la Arrixaca University Hospital. University of Murcia, Spain.

#### 10:30 h. COFFEE BREAK

#### 11:00 h. Gene Therapy for Fanconi anemia.

**Prof. Juan Antonio Bueren Roncero**. Hematopoietic Innovative Therapies Division. CIEMAT. University of Madrid, Spain.

#### 11:30 h. Gene Therapy for Haemophilia: the new road to cure Hemophilia.

**Prof. María Eva Mingot Castellano**. Associate Professor. University of Málaga. Hematology Department. University Hospital. Málaga, Spain.

#### 12:00 h. iPSC as a Therapeutic Tool.

**Prof. Ángel Raya Chamorro**. Director Center of Regenerative Medicine in Barcelona (CMRB), Spain

#### 13:00 h. LUNCH.

#### 14:30 h. Microvesicles: the new therapeutic weapon from the MSC.

**Prof. Fermín Sánchez-Guijo Martín**. Professor of Hematology. Hematology Department. University Hospital of Salamanca, Spain.

#### 15:00 h. Production of cells and tissues in GMP facilities: a real challenge.

**Prof. María Eugenia Fernández Santos**. Technical Director of the Cell Production Unit. Gregorio Marañón University Hospital. Institute Gregorio Marañón. Madrid, Spain.

#### 15:30 h. The future of the University in Spain. Just a finance problem?

**Prof. José Antonio Cascales Sasetá**. Managing Director. University of Murcia, Spain.

## 11/Thursday

### CELL THERAPY AND TISSUE ENGINEERING. CLINICAL TRIALS.

Chairs: **Prof. Damián García-Olmo**. Professor of Surgery. Autonomous University of Madrid, Spain.

**Prof. José M. Moraleda**. Professor of Medicine. IMIB-Arrixaca. University of Murcia, Spain.

#### 09:00 h. Cell Therapy and tissue engineering in Cardiac Diseases.

**Prof. Felipe Prósper Cardoso**. Director of Cell Therapy Department. Co-director Hematology Department. University of Navarra, Spain.

#### 09:30 h. Cell Therapy in Diabetes Mellitus.

**Prof. Bernat Soria Escoms**. Professor of Physiology. University Pablo de Olavide. Sevilla, Spain.

#### 10:00 h. Cell Therapy for Osteoarticular Repair.

**Prof. Javier García-Sancho Martín**. Professor of Physiology. School of Medicine. Institute of Biology and Molecular Genetics. (IBGM). University of Valladolid, Spain.

#### 10:30 h. COFFEE BREAK.

#### 11:00 h. Regenerative Medicine for high level athletes. Epigenetic models of the treatment of degenerative chondrocytes.

**Prof. Pedro Guillén García**. Professor of Traumatology. Clinical Research Unit, CEMTRO Hospital. Madrid, Spain.

#### 11:30 h. Cell Therapy and tissue bioengineering in Odontology.

**Prof. Francisco Javier Rodríguez Lozano**. Professor of Dentistry. Institute of Biomedical Research IMIB-Arrixaca. Virgen de la Arrixaca University Hospital. University of Murcia, Spain.

#### 12:00 h. Cell Therapy in Surgery. The road map to success. What is next?

**Prof. Damián García Olmo**. Professor of Surgery. Chief of Department of Surgery. Fundación Jiménez Díaz. University Hospital. Autonomus University of Madrid, Spain.

#### 13:00 h. LUNCH.

#### 14:30 h. Debate session: Stem cell information and the benefits and dangers of the social media. How to combat the stem cell therapy fraud.

Chair: **Prof. Agustín Zapata González**. Professor of Cell Biology. Complutense University of Madrid, Spain.

#### The role of TerCel good clinical practice committee.

**Prof. Ramón Muñoz Chapuli**. Professor of Medicine. University of Málaga. Coordinator Good clinical Practice Committee. TerCel. Málaga, Spain.

#### The role of social media.

**Prof. Juan Tomás Frutos**. Professor of journalism. Head of TV1 news in Murcia. University of Murcia, Spain.

#### The role of patients associations on access to CAR-T: How to manage the hype.

**Prof. Natacha Bolaños Martínez**. Patient association. Lymphoma Coalition. Madrid, Spain.

#### The role of the Spanish Agency of medicines and health products (AEMPS).

**Prof. Sol Ruiz Antúnez**. Head of the Unit of Biotechnology and Advanced Therapies at EMA. AEMPS. Madrid, Spain.

## 12/Friday

### CELL THERAPY IN NEUROLOGICAL DISEASES.

Chair: **Prof. Salvador Martínez Pérez**. Director Institute of Neurosciences. UMH-CSIC. Professor of Human Anatomy and Embryology. University Miguel Hernández. Elche, Spain.

#### 09:30 h. Is there any place for Cell therapy in Parkinson's disease?

**Prof. José Luis Labandeira García**. Professor of Human Anatomy and Embryology. Center for Research in molecular medicine (CiMUS). Director Dpt. Morphological Sciences. University of Santiago de Compostela. A Coruña, Spain.

