



# CELL THERAPY: FROM THE BENCH TO THE BEDSIDE AND RETURN

**Directors:**

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**Los Alcázares (Murcia) 8-12 July 2019**



**Place:** Hotel 525. Calle del Río Borines 58.  
30710 Los Alcázares, Murcia  
902 32 55 25

**Duration:** 30 hours

**Price:** 160 €

**Registration Deadline:** 28/06/2019

**More Information and Registration Form:**

[www.um.es/unimar](http://www.um.es/unimar)

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## INTERNATIONAL SUMMER COURSE. MURCIA UNIVERSITY 2019

### CELL THERAPY: FROM THE BENCH TO THE BEDSIDE AND RETURN

**Place: Los Alcázares. Murcia. Spain**

**Credits: 1 credit ECTS**

**Dates: July 8-12, 2019**

#### **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 Stem Cells, and their current applications in the field of Regenerative Medicine.

The course is intended to provide a review of current clinical applications of stem cells, a forum for scientific discussion with basic and clinical researchers that are experts in cellular therapy, and to present the achievements and challenges in this exciting and growing area of medical 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 advances in the new types of hematopoietic stem 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 8. Bone Marrow Stem Cells. Hematopoietic Stem Cell Transplantation

### 09:00-09:30 h. Opening Session.

Hon. Mr. Manuel Villegas.

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

Hon. Mr. Jose Luján.

Rector of the University of Murcia. Murcia, Spain.

### Morning Session

Chair: Prof. Jose M. Moraleda. Professor of Medicine. IMIB-Arrixaca. University of Murcia Spain.

### 09:30-10:00 h. The Biology of the Hematopoietic Stem Cell.

Prof. Agustín Zapata Ruiz.

Professor of Cell Biology. Complutense University of Madrid. Madrid, Spain.

### 10:00-10:30 h. Procurement of Hematopoietic Progenitors: Cellular Selection.

Prof. Miguel Blanquer.

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

### 10:30-11:00 h. Hematopoietic cell transplantation: cell therapy to cure haematological diseases.

Prof. Jose M. Moraleda.

Professor of Medicine. University of Murcia. Head, Dpt of Hematology and HSCT Program. Institute Research IMIB-Arrixaca, Virgen de la Arrixaca University Hospital. Murcia, Spain.

### 11:00-11:30 h. Coffee break

### 11:30-12:10 h. The HLA system, T cells, APC, NK cells. Understanding the immune system.

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.

### 12:00-12:30 h. Graft versus host disease and GVL. The Jekyll and Hyde of allotransplantation.

Prof. Jose Antonio Perez Simón.

Professor of Hematology. Head Hematology Department. Institute of Biomedicine, Virgen del Rocío University Hospital. University of Sevilla, Spain.

### 12:30-13:00 h. Haploidentical transplants. Past, present and future.

Prof. Fabio Ciceri.

Department of Hematology. IRCCS Ospedale San Raffaele. Università Vita-Salute San Raffaele. Milan. Italy.

### 13:30-15:00 h. Lunch

### Afternoon Session

### 15:00-15:30 h. Haploidentical transplants for solid tumours. The power of NK cells

Prof. Antonio Perez Martínez.

Head Department of Pediatric Hematology. University Hospital La Paz. Madrid, Spain.

### 15:30-16:00 h. Hematopoietic Stem Cell transplantation. The way to cure HIV?

Prof. Rafael Duarte Palomino.

Head Clinical Hematology. University Hospital Puerta de Hierro. Madrid.

### 16:00-17:00 h. Debate session: Umbilical cord banks use (Discussants (15m each and discussion):

Chair: Prof. Alejandro Madrigal.

Scientific Director of The Anthony Nolan Trust. 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. France. Chair EBMT Cell Therapy & IB WP.



## Tuesday 9. Immune Effector Cell approaches to cure cancer

### Morning Session

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

- 9:00-9:30 h. CAR-T cells. Basic principles and clinical Pharmacology.**  
**Prof. Irene García Cadenas.**  
*Hematology Dpt. Hospital Sant Pau. Institut Jose Carreras. University of Barcelona. Spain.*
- 09:30-9:50 h. Novartis CAR-T cells manufacture and results in leukemia and lymphoma. What is next?**  
**Dra. Monica Jiménez Hernández.**  
*Therapeutical Area Manager. Novartis. Spain.*
- 09:50-10:10 h. Gilead CAR-T cells manufacture and results in lymphoma. What is next?**  
**Dra. Regina Quiroga.**  
*Cell therapy Medical Lead. Gilead Spain.*
- 10:10-10:30 h. Celgene CAR-T cells manufacture and results in myeloma. What is next?**  
**Dra. Marta Durán Delmás.**  
*Associate Medical Director. Celgene. Spain.*
- 10:30-10:50 h. Advanced cell therapy manufacture. The Miltenyibiotec approach.**  
**Dr. Jose Luis Mateos Sanz.**  
*Clinical Business Manager. Miltenyibiotec. Spain.*
- 10:50-11:20 h. Coffee break**
- 11:20-11:50 h. CAR-T cells against solid tumours.**  
**Prof. Sonia Guedan.**  
*Hospital Clinic. Institut Jose Carreras. University of Barcelona. Spain.*
- 11:50-12:20 h. CAR-T cells in academic centres. The experience of the Hospital Clinic.**  
**Prof. Alvaro Urbano.**  
*Hospital Clinic. Institut Josep Carreras. University of Barcelona, Spain*
- 12:20-12:50 h. CAR-T CD44v6 against acute myeloid leukemia and multiple myeloma.**  
**Prof. Fabio Ciceri.**  
*Ospedale San Raffaele. Universita Vita-Salute San Raffaele. Milan. Italy*
- 12:50-13:20 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. France. Chair EBMT Cell Therapy & IB WP.*
- 13:20-15:00 h. Lunch**

### Afternoon Session

- 15:00-15:30 h. CAR-T cells for Hodgkin's lymphoma.**  
**Prof. Javier Briones Mejide.**  
*Hematology Dpt. Hospital Sant Pau. Institut Jose Carreras. University of Barcelona. Spain*
- 15:30-16:00 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. USA.
- 16:00-17:00 h. Debate session: are we going to cure cancer with CAR-T cells?**  
**Chair: Prof. Jose M. Moraleda.** Professor of Medicine. University of Murcia. Spain
- Discussants** (5 minutes each and discussion):  
 Robert Sackstein / Fabio Ciceri / Christian Chabannon / Sonia Guedan



## Wednesday 10. Mesenchymal Stem Cells (MSC), induced Pluripotent Stem cells (iPSC), Gene therapy: Scientific basis for its therapeutic use

### Morning Session

**Chairs:** Prof. Jose M. Moraleda. *Professor of Medicine. IMIB-Arrixaca. University of Murcia. Spain*  
Prof. Bernat Soria. *Director of the Stem Cells Department. CABIMER. Sevilla, Spain*

**09:00-09:30 h. MSC properties: the biological basis to become a cell medicine.**

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

**09:30-10:00 h. The extrinsic regulation of haematopoietic stem cells as a therapeutic target.**

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

**10:00-10:30 h. Fucosylated mesenchymal stem cells and sepsis.**

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

**10:30-11:00 h. Coffee break**

**11:00-11:30 h. Gene Therapy for Fanconi anemia.**

Prof. Juan Bueren.  
*Differentiation and Cytometry Unit, Hematopoietic Innovative Therapies Division. CIEMAT. University of Madrid. Madrid, Spain.*

**11:30-12:00 h. Gene Therapy for Haemophilia: the new road to cure Hemophilia.**

Prof. Maria Eva Mingot Castellano.  
*Associate Professor. University of Málaga. Hematology Department. University Hospital. Malaga.*

**12:00-12:30 h. iPSC as a Therapeutic Tool.**

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

**13:00-14:30 h. Lunch**

### Afternoon Session

**14:30-15:00 h. Microvesicles: the new therapeutic weapon from the MSC.**

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

**15:00-15:30 h. Production of cells and tissues in GMP facilities: a real challenge.**

Prof. Maria Eugenia Fernandez-Santos.  
*Technical Director of the Cell Production Unit. Gregorio Marañón University Hospital. Research Institute Gregorio Marañón. Madrid, Spain*

**15:30-16:30 h. Special Guest Lecture:  
Cell and gene therapies to cure children hematological diseases.**

Prof. Franco Locatelli.  
*Director. Department Onco-Hematology and Cell and Gene Therapy. IRCCS. Bambino Gesù Pediatric Hospital. Rome. Italy*



## Thursday 11. Cell Therapy and tissue engineering. Clinical Trials

### Morning Session

**Chairs:** Prof. [Damián García-Olmo](#). Professor of Surgery. Autonomous University of Madrid. Spain  
Prof. [Jose M. Moraleda](#). Professor of Medicine. IMIB-Arixaca. University of Murcia. Spain

#### 09:00-9:30 h. Cell Therapy and tissue engineering in Cardiac Diseases.

Prof. [Felipe Prósper](#).

Director of Cell Therapy Department. Co-director Hematology Department. University of Navarra. Navarra, Spain.

#### 9:30-10:00 h. Cell Therapy 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.

#### 10:00-10:30 h. Cell Therapy for Osteoarticular Repair.

Prof. [Javier García-Sancho](#).

Professor of Physiology. School of Medicine. Institute of Biology and Molecular Genetics (IBGM). University of Valladolid. Valladolid, Spain,

#### 10:30-11:00 h. Coffee break

#### 11:00-11:30 h. Regenerative Medicine for high level athletes. The pressure for fast healing.

Prof. [Pedro Guillén](#).

Professor of Traumatology. Clinical Research Unit, CEMTRO Hospital. Madrid, Spain.

#### 11:30-12:00 h. Cell Therapy and tissue bioengineering in Odontology.

Prof. [Francisco J. Rodríguez-Lozano](#).

Professor of Dentistry. Institute of Biomedical Research IMIB-Arixaca. Virgen de la Arrixaca University Hospital. University of Murcia. Murcia, Spain.

#### 12:00-12:30 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 Jimenez Diaz University Hospital. Autonomous University of Madrid. Madrid, Spain.

#### 13:00-14:30 h. Lunch

### Afternoon Session

#### 14:30-16:00 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](#).

Professor of Cellular Biology. Complutense University of Madrid. Madrid, Spain

#### Discussants (20 minutes each and discussion):

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

Prof. [Ramón Muñoz Chápuli](#).

Professor of Medicine. University of Málaga. Coordinator Good clinical Practice Committee. TerCel

##### **The role of social media.**

Prof. [Juan Tomas Frutos](#).

Professor of journalism. Head of TV1 news in Murcia. University of Murcia. Spain.

##### **The role of patient associations.**

Dña. [Natacha Bolaños Martínez](#)

Patient association. Lymphoma coalition. 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





## Friday 12. Cell Therapy in Neurological Diseases

### Morning Session

**Chair:** Prof. Salvador Martinez Perez

*Director Institute of Neurosciences. UMH-CSIC. Professor of Human Anatomy and Embryology. University Miguel Hernandez. Elche. Spain*

#### 09:30-10:00 h. Is there any place for Cell therapy in Parkinson´s disease?

**Prof. Jose Luis Labandeira.**

*Professor of Anatomy. Neuromorphology and Experimental Neurology. University of Santiago de Compostela, Spain.*

#### 10:00-10:30 h. Antiparkinsonian cell therapy using carotid body cells.

**Prof. Juan José Toledo.**

*Professor of Physiology. Director of the Dpt. of Medical Physiology and Biophysics. Institute of Biomedical Research of Seville. IBiS, Virgen del Rocío Hospital/CSIC/University of Sevilla, Spain.*

#### 10:30-11:00 h. Coffee break

#### 11:00-11:30 h. Cell therapy for Amyotrophic Lateral Sclerosis. New developments.

**Prof. Salvador Martinez.**

*Director Institute of Neurosciences. UMH-CSIC. Professor of Human Anatomy and Embryology. University Miguel Hernandez. Elche. Spain.*

#### 11:30-12:00 h. Cell Therapy to cure glioblastoma. Preclinical studies and clinical insights.

**Prof. Rut Valdor.**

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

#### 12:00-13:00 h. Key question conference: clues for improving translational research in Spain.

**Prof. Joan Comella.**

*Director Research Institute Vall d'Hebron. Professor of Histology. UAB. Barcelona. Spain*

#### 13:00-14:30 h. Lunch

### Afternoon Session

#### 14:30-16:00 h. Special Talks: Science and other matters of life

**Chair:** Prof. Jose M. Moraleda.

*Professor of Medicine. IMIB-Arrixaca. University of Murcia. Spain.*

#### 14:30-15:15 *Does our brain work properly to heal us? My particular odyssey*

**Prof. Jose Carrion.**

*Professor of Evolutive Biology. University of Murcia. Spain*

#### 15:15-16:00 *The Spanish Science system. My vision to get the system working*

**Prof. Cristobal Belda Iniesta**

*Deputy Director of Evaluation and Promotion of Research of the Carlos III Health Institute (ISCIII)*

#### 16:00-16:30 h. Closing ceremony and awarding of certificates.