

# 14<sup>th</sup> INTERNATIONAL SYMPOSIUM ON STEM CELL THERAPY & CARDIOVASCULAR INNOVATIONS



[www.cardiovascularcelltherapy.com](http://www.cardiovascularcelltherapy.com)

Symposium Director: Francisco Fernández – Avilés



MADRID. SPAIN, JUNE 15<sup>th</sup> – 16<sup>th</sup> 2017

AULA MAGNA. PABELLÓN DOCENTE. HOSPITAL GENERAL UNIVERSITARIO GREGORIO MARAÑÓN.

C/ IBIZA, 43. 28007 MADRID



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Inside the framework of Precision Medicine, regenerative therapies are undoubtedly the greatest future hope in the battle against cardiovascular failure, and have the urgent need to address this challenge within an international framework of excellence. This view has inspired from the beginning the mission of this symposium, created to critically reflect on the past of this field and to advance through the synergy of basic discoveries and translational efforts.

Once again, this adventure has been made possible thanks to the effort and enthusiasm of many people. With the celebration of the 14th Edition of this meeting, all of us who have been involved in its preparation would like to thank you for your interest and support. We sincerely hope to meet the expectations of all those who will devote part of their valuable time to visit Madrid and to take part in the Symposium with us. We are excited and look forward to sharing this special occasion with you.

Francisco Fdez-Avilés.

(On behalf of the Organizing Committee)



# THURSDAY, 15<sup>th</sup> June 2017

7.45 – 8.30 REGISTRATION

8.30 – 9.00 WELCOMING

## 9.00 – 10.00 OPENING LECTURES

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**Chairs** John F. Martin (London, UK)  
David García-Dorado (Barcelona, Spain)

9.00 – 9.15 **Cells to cure myocardial damage. Should we believe?**  
Michael Laflamme (Toronto, Canada)

9.15 – 9.30 **Gene editing as a regenerative treatment for cardiovascular diseases**  
Juan Carlos Izpisúa (La Jolla, USA)

9.30 – 9.45 **Cells and tissues as models of disease. How to find a personalized therapy**  
Joseph Wu (Stanford, USA)

10.00 – 10.30 **Coffee break and Poster Exhibition**



## **10.30 – 12.00 WHAT'S NEW IN CARDIOVASCULAR REGENERATIVE MEDICINE?**

### ***Preclinical Regenerative Medicine***

<b>Chairs</b>	Ricardo Sanz-Ruiz Rosalinda Madonna	(Madrid, Spain) (Chieti, Italy)
<b>Panel Discussant</b>	Piero Anversa Nuria Montserrat Michael Laflamme	(Lugano, Switzerland) (Barcelona, Spain) (Toronto, Canada)

- 10.30 (10')**      **The role of fibroblasts in the myocardial parenchymal**  
Stefanie Dimmeler      (Frankfurt, Germany)
- 10.40 (10')**      **Empowering adult stem cells for myocardial regeneration**  
Mark Sussman      (San Diego, USA)
- 10.50 (10')**      **Allogeneic iPS-derived cardiomyocytes in primate models**  
Yuji Shiba      (Matsumoto, Japan)
- 11.00 (10')**      **Repetitive administration of CSC, a new paradigm**  
Roberto Bolli      (Louisville, USA)
- 11.10 (10')**      **Triangulation of preclinical studies of human pericytes models of myocardial infarction**  
Paolo Madeddu      (Bristol, UK)
- 11.20 (10')**      **Cardiac stem cell treatment in myocardial infarction. A systematic review and meta-analysis of preclinical studies**  
Steven Chamuleau      (Utrecht, The Netherlands)
- 11.30—12.00**      **Discussion**





## **12.00 – 13.40 WHAT'S NEW IN CARDIOVASCULAR REGENERATIVE MEDICINE?**

### ***Clinical Regenerative Medicine***

<b>Chairs:</b>	Stefan Janssens	(Leuven, Belgium)
	Antoni Bayes Genis	(Barcelona, Spain)
<b>Panel Discussants:</b>	Ricardo Sanz-Ruiz	(Madrid, Spain)
	Dominique Charron	(Paris, France)
	James T. Willerson	(Houston, USA)

- 12.00 - 12.10**     **Multicellular MSC-based bone marrow-derived cell therapy in patients with ischemic heart failure. The ixCELL-DCM trial**  
Timothy Henry                      (Los Angeles, USA)
- 12.10 - 12.20**     **Cardiopoietic cell therapy for advanced ischemic heart failure. The CHART-1 trial**  
André Terzic                      (Rochester, USA)
- 12.20 - 12.30**     **Autologous CD34(+) cells in patients with refractory angina. The RENEW trial**  
Thomas Povsic                      (Durham, USA)
- 12.30 - 12.40**     **Allogeneic versus autologous MSC for non-ischemic dilated cardiomyopathy. The POSEIDON-DCM trial**  
Joshua Hare                      (Miami, USA)
- 12.40 - 12.50**     **Nucleated bone marrow cells after STEMI treated with early PCI and optimal medical therapy. The BOOST-2 trial .**  
Kai C. Wollert                      (Hannover, Germany)
- 12.50 - 13.00**     **Bioabsorbable intracoronary matrix for prevention of ventricular remodeling after myocardial infarction. The PRESERVATION trial**  
Thomas Povsic                      (Durham, USA)
- 13.00 - 13.10**     **Intramyocardial cell-based studies in patients with heart failure**  
Mariann Gyöngyösi                      (Vienna, Austria)
- 13.10 - 13.20**     **Intracoronary Administration of Autologous CD34+ Cells in Patients With Left Ventricular Dysfunction Post STEMI. The PreSERVE-AMI trial**  
Douglas W. Losordo                      (Chicago, USA)
- 13.20 – 13.40**     **Discussion**



### **13.40 – 14.15 Lunch and Poster Exhibition**

**Chairs and jury:** Philippe Menasche (Paris, France)  
Felipe Prosper (Pamplona, Spain)

In this “Poster Exhibition” research teams involved in the topic of the Symposium will have the opportunity of presenting selected parts of their work to the audience

A Poster Review Committee will select which the best posters of the session are. At the end of the session, the verdict will be communicated. The winner of the Posters Awards will have to present their work (oral presentation) the following day in the morning, in the session named “Best Poster Presentation”, when they will receive their prize.

For more information regarding Poster Exhibition and Poster Awards, please contact us via e-mail at [posters@cardiovascularcelltherapy.com](mailto:posters@cardiovascularcelltherapy.com)

### **14.15 – 14.20 Posters Award - Winners communication**

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**Chairs:** Philippe Menasché (Paris, France)  
Felipe Prosper (Pamplona, Spain)



## 14.20 – 16.20 THE 2017 DEBATE

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<b>Chairs:</b>	James T. Willerson	(Houston, USA )
	Giulio Pompilio	(Milan, Italy)
<b>Panel Discussants:</b>	Pedro L. Sánchez	(Salamanca, Spain)
	Piero Anversa	(Lugano, Switzerland)
	Antoni Bayés-Genis	(Barcelona, Spain)

### **14.20 – 15.00 STEMI in the era of reperfusion and optimal medical therapy. Do we really need regenerative therapies?**

#### **14.20 – 14.30 NO**

Jens Kastrup (Copenhagen, Denmark)

#### **14.30 – 14.40 YES**

Andreas Zeiher (Frankfurt, Germany)

#### **14.40 – 15.00 Discussion**

### **15.00 – 15.40 Endpoints in future clinical trials.**

#### **15.00 – 15.10 Only death and hard endpoints should be used**

Filippo Crea (Rome, Italy)

#### **15.10 – 15.20 Quality of life is the only meaningful goal**

Bernard Gersh (Rochester, USA)

#### **15.20 – 15.40 Discussion**

### **15.40 – 16.20 Pluripotent stem cells (iPSC / ESC) at the moment of truth**

#### **15.40 – 15.50 We are ready for clinical applications**

Philippe Menasché (Paris, France)

#### **15.50 – 16.00 We still don't know how to use them**

Roberto Bolli (Louisville, USA)

#### **16.00 – 16.20 Discussion**

### **16.20—16.50 Coffee Break**



## 16.50 – 18.20 DISCOVERIES, INVENTIONS AND BREAKTHROUGHS

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**Chairs:** Bernardo Nadal-Ginard (London, UK)  
André Terzic (Rochester, USA)

**Panel Discussant:** Jerome Roncalli (Toulouse, France)  
Mariann Gyöngyösi (Vienna, Austria)  
Roberto Fernández-Viña (Buenos Aires, Argentina)

- 16.50 - 17.00** Identification of cardiovascular risk factors associated with bone marrow cell subsets in patients with STEMI: a biorepository evaluation from the CCTRN TIME and late TIME clinical trials  
Doris A. Taylor (Houston, USA)
- 17.00 - 17.10** Innovations to improve cardiac tissue engineering: from decellularized scaffolds to 3D bioprinting  
Nuria Montserrat (Barcelona, Spain)
- 17.10 - 17.20** Clinical trials of allogeneic CDCs for HFrEF, HFpEF and pulmonary hypertension: DYNAMIC, Regress-HFpEF and ALPHA  
Eduardo Marban (Los Angeles, USA)
- 17.20 - 17.30** Allogeneic ADSC for advanced heart failure. The SCIENCE trial  
Jens Kastrup (Copenhagen, Denmark)
- 17.30 - 17.40** Allogeneic mesenchymal precursor cells (Rexlemestrocil-L) for the treatment of heart failure. DREAM-HF  
Emerson Perin (Houston, USA)
- 17.40 – 18.20** Discussion



# FRIDAY, 16<sup>th</sup> June 2017

## 9.00 – 9.30 BEST POSTERS PRESENTATION

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**Chairs:** Felipe Prosper (Pamplona, Spain)  
Philippe Menasché (Paris, France)

## 9.30 – 10.30 RECENT CONTRIBUTIONS PRESENTED BY YOUNG INVESTIGATORS

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**Chairs:** Felipe Prosper (Pamplona, Spain)  
Philippe Menasché (Paris, France)  
**Panel Discussants:** Javier Bermejo (Madrid, Spain)  
Wojtek Wojakowski (Katowice, Poland)

**09.30 - 09.50** Education pathways in regenerative medicine: building the next generation workforce  
Saranya Wyles (André Terzic's group. Rochester, USA)

**09.50 – 10.00** Ying-yang allogeneicity for cardiac repair  
Reem Al-Daccak (Dominique Charron's group. Paris, France)

**10.00 – 10.10** Cardiac adipocytes in arrhythmogenic cardiomyopathy  
Elena Sommariva (Giulio Pompilio's group. Milan, Italy)

**10.10 – 10.20** Reactivating adult cardiomyocyte proliferation and cardiac regeneration using using a cardiomyocyte-specific and cell-cycle inducer modified mRNA  
Lior Zangi (Roger Hajjar's group. New York, USA)

**10.20 – 10.30** Panel Discussion

**10.30—11.00** Coffee Break

## **11.00 – 12.30 THE FIELD AFTER THE TACTICS ENTERPRISE**

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**Chairs:** Francisco Fdez-Avilés (Madrid, Spain)  
James T. Willerson (Houston, USA)  
**Panel Discussants:** André Terzic (Rochester, USA)  
Joseph Bartunek (Aalst, Belgium)  
Robert Simari (Kansas, USA)

**11.00 - 11.15 Cardiac regeneration and repair. The roadmap for the European Society of Cardiology**  
Lina Badimon (Barcelona, Spain)

**11.15 – 11.30 Scientific advance in cardiovascular regenerative therapies. Obstacles and opportunities in the American and global scenario**  
Eduardo Marban (Los Angeles, USA)

**11.30 – 11.45 Cardiac regeneration in the fight against cardiovascular failure. Ready for clinical application?**  
Anthony DeMaria (San Diego, USA)

**11.45 – 12.30 Panel Discussion**

**12.30—13.00 Break**

## **13.00 – 13.40 CLOSING SESSION**

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**Chairs:** John F. Martin (London, UK)  
Arturo Fernández-Cruz (Madrid, Spain)

**13.00 – 13.20 What does cardiac regeneration mean? Cells, genes, anything else?**  
Valentin Fuster (New York, USA)

**13.20 – 13.40 Future and Innovative approaches to Chronic Heart Failure**  
Bernard Gersh (Rochester, USA)

**13.40 – 14.00 FOURTH MADRID CARDIAC REGENERATION AWARDS**

**Chairs:** Arturo Fernández-Cruz (Madrid, Spain)  
John F. Martin (London, UK)

**14.00 ADJOURN**  
Francisco Fdez-Aviles (Madrid, Spain)

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## ORGANIZATION

- **Instituto de Investigación Sanitaria Hospital Gregorio Marañón.**
- **Servicio de Cardiología. Hospital General Universitario Gregorio Marañón, Madrid.**
- **Red Temática de Investigación Cardiovascular del Instituto de Salud Carlos III (RIC)**
- **Red Temática de Terapia Celular del Instituto de Salud Carlos III (TERCEL)**
- **Grupo de Terapia Celular Aplicada al Miocardio (TECAM, Hospital General Universitario Gregorio Marañón -Madrid-, Hospital Clínico-Universitario de Valladolid, Hospital Río Hortega - Valladolid-, Instituto de Biología y Genética Molecular - Universidad de Valladolid-)**
- **Task Force on Stem Cell Regeneration of the Heart (European Society of Cardiology)**



## MEETING VENUE

Aula Magna. Pabellón Docente. Hospital General Universitario Gregorio Marañón.

C/ Ibiza, 43. 28007 Madrid, Spain



## DATE

June 15<sup>th</sup> and 16<sup>th</sup>, 2017

## OFFICIAL LANGUAGES

English and Spanish (simultaneous translation will be available)

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Saranya Wyles (Rochester, USA)  
Lior Zangi (New York, USA)  
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