14th INTERNATIONAL SYMPOSIUM
ON STEM CELL THERAPY &
CARDIOVASCULAR INNOVATIONS

www.cardiovascularcelltherapy.com

Symposium Director: Francisco Fernández – Avilés

MADRID. SPAIN, JUNE 15th – 16th 2017
AULA MAGNA. PABELLÓN DOCENTE. HOSPITAL GENERAL UNIVERSITARIO GREGORIO MARAÑÓN.
C/ IBIZA, 43 - 28007 MADRID
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, 15th June 2017

7.45 – 8.30 REGISTRATION

8.30 – 9.00 WELCOMING

9.00 – 10.00 OPENING LECTURES

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>9.00</td>
<td>Cells to cure myocardial damage. Should we believe?</td>
<td>Michael Laflamme</td>
<td>Toronto, Canada</td>
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<tr>
<td>9.15</td>
<td>Gene editing as a regenerative treatment for cardiovascular diseases</td>
<td>Juan Carlos Izpisúa</td>
<td>La Jolla, USA</td>
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<tr>
<td>9.30</td>
<td>Cells and tissues as models of disease. How to find a personalized therapy</td>
<td>Joseph Wu</td>
<td>Stanford, USA</td>
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10.00 – 10.30 Coffee break and Poster Exhibition
10.30 – 12.00 WHAT’S NEW IN CARDIOVASCULAR REGENERATIVE MEDICINE?

*Preclinical Regenerative Medicine*

**Chairs**
- Ricardo Sanz-Ruiz (Madrid, Spain)
- Rosalinda Madonna (Chieti, Italy)

**Panel Discussant**
- Piero Anversa (Lugano, Switzerland)
- Nuria Montserrat (Barcelona, Spain)
- Michael Laflamme (Toronto, Canada)

**10.30 - 10.40**
**The role of fibroblasts in the myocardial parenchymal**
Stefanie Dimmeler (Frankfurt, Germany)

**10.40 - 10.50**
**Empowering adult stem cells for myocardial regeneration**
Mark A. Sussman (San Diego, USA)

**10.50 - 11.00**
**Allogeneic iPS-derived cardiomyocytes in primate models**
Yuji Shiba (Matsumoto, Japan)

**11.00 - 11.10**
**Repetitive administration of CSC, a new paradigm**
Roberto Bolli (Louisville, USA)

**11.10 - 11.20**
**Triangulation of preclinical studies of human pericytes models of myocardial infarction**
Paolo Madeddu (Bristol, UK)

**11.20 - 11.30**
**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
WHAT’S NEW IN CARDIOVASCULAR REGENERATIVE MEDICINE?

Clinical Regenerative Medicine

Chairs: Stefan Janssens (Leuven, Belgium)  
Antoni Bayés-Genís (Barcelona, Spain)

Panel Discussants: 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 Allogeneic versus autologous MSC for non-ischemic dilated cardiomyopathy. The POSEIDON-DCM trial
Joshua Hare (Miami, USA)

12.30 - 12.40 Nucleated bone marrow cells after STEMI treated with early PCI and optimal medical therapy. The BOOST-2 trial
Kai C. Wollert (Hannover, Germany)

12.40 - 12.50 Bioabsorbable intracoronary matrix for prevention of ventricular remodeling after myocardial infarction. The PRESERVATION trial
Thomas J. Povsic (Durham, USA)

12.50 - 13.00 Intramyocardial cell-based studies in patients with heart failure
Mariann Gyöngyösi (Vienna, Austria)

13.00 - 13.20 Recent breakthroughs with CD34+ cells in chronic patients: Insights from Clinical Trials in >700 patients
Thomas J. Povsic (Durham, USA)  
Douglas W. Losordo (Chicago, USA)

13.20 – 13.40 Discussion
13.40 – 14.15  **Lunch and Poster Exhibition**  
*Chairs and jury:  Philippe Menasché (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

14.15 – 14.20  **Posters Award - Winners communication**  
*Chairs:  Philippe Menasché (Paris, France)  
Felipe Prosper (Pamplona, Spain)*
14.20 – 16.20  THE 2017 DEBATE

Chairs:  
James T. Willerson  (Houston, USA)  
Giulio Pompilio  (Milan, Italy)

Panel Discussants:  
Pedro L. Sánchez  (Salamanca, Spain)  
Piero Anversa  (Lugano, Switzerland)  
Antoni Bayés-Genís  (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 – 18.00  DISCOVERIES, INVENTIONS AND BREAKDOWNS

Chairs:  
Andreu M. Climent  (Madrid, Spain)  
André Terzic  (Rochester, USA)

Panel Discussant:  
Jerôme 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 Marbán  (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 (Rexlemestrocel-L) for the treatment of heart failure. DREAM-HF  
Emerson C. Perin  (Houston, USA)

17.40 – 18.00  Discussion
## FRIDAY, 16th June 2017

### 9.00 – 9.30 BEST POSTERS PRESENTATION

<table>
<thead>
<tr>
<th>Chairs:</th>
<th>Felipe Prosper (Pamplona, Spain)</th>
<th>Philippe Menasché (Paris, France)</th>
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### 9.30 – 10.30 RECENT CONTRIBUTIONS PRESENTED BY YOUNG INVESTIGATORS

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<tr>
<td>Panel Discussants:</td>
<td>Javier Bermejo (Madrid, Spain)</td>
<td>Wojtek Wojakowski (Katowice, Poland)</td>
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<th>Time</th>
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<tbody>
<tr>
<td>09.30 - 09.40</td>
<td>Education pathways in regenerative medicine: building the next generation workforce</td>
<td>Saranya Wyles (André Terzic’s group. Rochester, USA)</td>
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<td>09.40 - 09.50</td>
<td>Ying-yang allogeneicity for cardiac repair</td>
<td>Reem Al-Daccak (Dominique Charron’s group. Paris, France)</td>
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<td>09.50 – 10.00</td>
<td>Cardiac adipocytes in arrhythmogenic cardiomyopathy</td>
<td>Elena Sommariva (Giulio Pompilio’s group. Milan, Italy)</td>
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<tr>
<td>10.00 – 10.10</td>
<td>Reactivating adult cardiomyocyte proliferation and cardiac regeneration using a cardiomyocyte-specific and cell-cycle inducer modified mRNA</td>
<td>Lior Zangi (Roger Hajjar’s group. New York, USA)</td>
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<tr>
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<td>10.30—11.00</td>
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11.00 – 12.15  THE FIELD AFTER THE TACTICS ENTERPRISE

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 Marbán (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 – 12.15  Panel Discussion  

12.15—13.00  Break  

13.00 – 13.40  CLOSING SESSION  

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)
DIRECTION

Francisco Fernández-Avilés
Servicio de Cardiología
Hospital General Universitario Gregorio Marañón (Madrid, Spain)
Instituto de Investigación Sanitaria Gregorio Marañón (IISGM)

CO-DIRECTION

Andreu M. Climent
Servicio de Cardiología. Laboratorio de Órganos Bioartificiales
Hospital General Universitario Gregorio Marañón
Instituto de Investigación Sanitaria Gregorio Marañón (Madrid, Spain)

Mª Eugenia Fernández Santos
Unidad de Producción Celular. Laboratorio de Órganos Bioartificiales
Hospital General Universitario Gregorio Marañón
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ORGANIZATION
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• Task Force on Stem Cell Regeneration of the Heart (European Society of Cardiology)
• Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares del Instituto de Salud Carlos III (CIBERCV)
This symposium is aimed at both medical and non-medical scientists interested in the study and application of stem cell therapy and other biotechnological advances for the prevention and treatment of cardiovascular failure. For this reason the audience comprises:

a. Preclinical researchers from all areas wishing to deepen their knowledge of cardiovascular biotechnological developments with therapeutic potential.

b. Doctors specialising in the care of patients suffering from cardiovascular diseases, and who are interested in finding out and discussing the current and the future prospects of these new therapeutic methods.

c. Interventional cardiologists and cardiac surgeons interested in the results and perspectives of: gene vehiculization techniques, stimulation of endogenous progenitors, cell transplantation delivery systems or electromechanical devices to fight against cardiovascular diseases.

d. Medical or no medical professionals interested in the development of units and networks aimed at the translation of cardiovascular knowledge from bench to bedside and vice versa.

e. Medical or no medical professionals interested in envisaging the opportunities for competition of biotechnology in the cardiovascular field.

At the end of the conference the attendees will have acquired the following skills:

1. Knowledge and ability to discuss the role of progenitor cells in the integrity of the cardiovascular system of a healthy individual.

2. Knowledge and ability to discuss the latest experimental advances on cardiovascular repair, through adult or embryonic stem cell transplantation, or by stimulation of endogenous progenitors.

3. Knowledge and ability to objectively debate the current state of feasibility, safety and efficacy with regards to the clinical application of cell therapy and other new biotechnological treatments.

4. Knowledge and ability to debate objectively on the efficiency of these types of treatment in patients with acute or chronic cardiovascular diseases.

5. Ability to predict the possibilities of scientific and professional attitude with regards to offering these therapeutic methods.

6. Ability to evaluate and decide one’s own ability to participate in the application of these therapies for healthcare, clinical, and preclinical purposes.

7. Ability to identify those institutions and groups with the highest performance capabilities in these fields, and to establish contacts for educational, scientific, and healthcare purposes.
· Spanish Society of Cardiology.

Continuing Medical Education Accreditation Program. Activity accredited by the Spanish Society of Cardiology for 12.8 credit hours.

MEETING VENUE
C/ Ibiza, 43. 28007 Madrid, Spain

DATE
June 15th and 16th, 2017

OFFICIAL LANGUAGES
English and Spanish (simultaneous translation will be available)

TECHNICAL SECRETARIAT
Marta Hurtado Martín
Francisco Matarín Uclés
info@cardiovascularcelltherapy.com
The website www.cardiovascularcelltherapy.com is a virtual place which contains all the information related to this Symposium and its previous editions.

It is possible through this web-site to access the scientific program, to register and to reserve accommodation.

It is also a priority for this web site to offer updated information about Stem Cell Therapy for Cardiovascular Diseases, so appropriate access to related sites has been created.

You can also join us on Facebook and Twitter.

@cardiostemcell
Reem Al-Daccak (Paris, France)
Piero Anversa (Lugano, Switzerland)
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Instituto de Investigación Sanitaria Gregorio Marañón
Hospital General Universitario Gregorio Marañón (Madrid, Spain)

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Andreas W. Zeiher
University of Frankfurt (Frankfurt, Germany)

TECHNICAL DIRECTION
Ana Fernández Baza
Hospital General Universitario Gregorio Marañón
C/ Doctor Esquerdo, 46. 28007 Madrid
T. 00 34 91 426 58 82 / F. 00 34 91 586 82 76
anafdezbaza@cardiovascularcelltherapy.com

TECHNICAL SECRETARIAT
Marta Hurtado Martín
Francisco Matarín Uclés
Hospital General Universitario Gregorio Marañón
C/ Doctor Esquerdo, 46. 28007 Madrid
T. 00 34 91 586 82 86 / F. 00 34 91 586 82 76