15th INTERNATIONAL SYMPOSIUM
ON CARDIOVASCULAR REGENERATION AND REPAIR
www.cardiovascularcelltherapy.com

Symposium Director: Francisco Fernández – Avilés

Scientific Programme jointly organised with the ESC Working Group on Cardiovascular Regenerative and Reparative Medicine

MADRID. SPAIN, MAY 10th – 11th 2018
AULA MAGNA. PABELLÓN DOCENTE. HOSPITAL GENERAL UNIVERSITARIO GREGORIO MARAÑÓN.
C/ IBIZA, 43. 28007 MADRID
CV Regenerative Medicine, at the forefront of the Precision Era

Important milestones on Cardiovascular Regenerative Medicine have been achieved since the last edition of this symposium: the definitive demonstration of the adult cardiomyocyte renewal capacity, the importance of the extracellular matrix, the higher regenerative efficacy of repetitive dosing protocols, definitive data supporting paracrine effects of stem cell therapies in humans and the consolidation of international alliances on Regenerative Medicine, such as the TACTICS enterprise or the ESC Working Group on Cardiovascular Regeneration and Repair (CARE).

Such achievements will define the future of this discipline and have always been part of our vision. This year we celebrate the 15th edition of this Symposium, that we have re-baptized as “INTERNATIONAL SYMPOSIUM ON CARDIOVASCULAR REGENERATION AND REPAIR”.

As in previous years, the meeting has been made possible thanks to the effort and enthusiasm of many people. Once again, 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, 10th May 2018

7.45 – 8.30   REGISTRATION

8.30 – 9.15   WELCOMING

9.15 – 9.45   OPENING LECTURES

The renewal of the heart. Dynamics and curative applications
Chair: Francisco Fernández-Avilés  (Madrid, Spain)
Bioartificial heart engineering. Ten years later
Doris A. Taylor  (Houston, USA)

10.00 – 11.30 UNDERSTANDING THE MECHANISMS OF CARDIOVASCULAR REGENERATION

Chairs: Stefan Janssens  (Leiden, Belgium)
Olaf Bergmann  (Stockholm, Sweden)
Panel Discussants: Rosalinda Madonna  (Chieti, Italy)
Mark Sussman  (San Diego, USA)
Bernardo Nadal-Ginard  (Boston, USA)

10.00 - 10.12 Understanding postnatal cardiomyocytes proliferation
Jose Krieger  (Sao Paulo, Brazil)

10.12 - 10.24 Cell reprograming can reactivate myocardial repair
Juan Carlos Izpisua  (La Jolla, USA)

10.24 - 10.36 Role of extracellular components in the myocardial regeneration mechanisms
Eldad Tzhaor  (Rehovot, Israel)

10.36 - 10.48 Replacement or local activation: paracrine mechanisms of myocardial repair
Lina Badimon  (Barcelona, Spain)

10.48 - 11.00 Immunological barriers for cell-based myocardial replacement
Dominique Charron  (Paris, France)

11.00 – 11.30 Discussion

11.30—12.00 Coffee Break
12.00 – 13.30 FROM MECANISMS TO CURE. LESSONS FROM TRANSLATIONAL SCIENCE

Chairs
Stefan Janssens (Leiden, Belgium)

Panel Discussants
Thomas Povsic (Durham, USA)
Steven Chamuleau (Utrecht, The Netherlands)
Anthony Mathur (London, UK)

12.00 - 12.12 Repeated Cell Therapy: A Paradigm Shift Whose Time Has Come
Roberto Bolli (Louisville, USA)

12.12 - 12.24 Regeneration strategies in the modification of the arrhythmogenic substrate
Ángel Arenal (Madrid, Spain)

12.24 - 12.36 Stem Cell Therapy in the presbycardia nightmare
Lilian Grigorian (Madrid, Spain)

12.36 - 12.48 Cell youth determines the efficiency of myocardial repair
Felix Engel (Erlangen, Germany)

12.48 - 13.00 Engineering tools for heart tissue repair
Wolfram H. Zimmerman (Göttingen, Germany)

13.00—13.30 Discussion

13.30 – 14.10 Lunch and Poster Exhibition

Chairs: Philippe Menasché (Paris, France)
        Adolfo Villa (Madrid, 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.
14.15 – 14.30  Posters Award — Winners Communication

Chairs
Philippe Menasché (Paris, France)
Adolfo Villa (Madrid, Spain)

14.30 – 16.00  FROM ANIMALS TO HUMAN HEALTH. LESSONS FROM CLINICAL SCIENCE

Chairs
Andreu M. Climent (Madrid, Spain)
Emerson Perin (Houston, USA)

Panel Discussants
Douglas Losordo (Chicago, USA)
Antoni Bayes-Genis (Barcelona, Spain)
Anthony Mathur (London, UK)

14.30 - 14.42  Stem cell therapy in the vascular arena. Insights from clinical studies
Timothy Henry (Los Angeles, USA)

14.42 - 14.54  G-CSF in STEMI: results from the STEAMI OUTCOME CMR Sub-study
Giulio Pompilio (Milan, Italy)

14.54 - 15.06  The effects of GCS-F in patients with a large anterior STEMI: a 10-year follow-up of the RIGENERA study
Domenico D’Amario (Rome, Italy)

15.06 - 15.18  Randomized double-blind trial to evaluate the Safety and Efficacy of Allogeneic cardiac stem cells in STEMI. (The CAREMI trial)
Ricardo Sanz (Madrid, Spain)

15.18 - 15.30  Allogenic cardiac stem cells in the context of ischemic and non-ischemic myocardial damage and dysfunction

15.30—16.00  Discussion

16.00—16.15  Coffee Break
<table>
<thead>
<tr>
<th>Time</th>
<th>Discussion Topic</th>
<th>Panelists</th>
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<tbody>
<tr>
<td>16.15 – 18.30</td>
<td><strong>THIS YEAR WE DEBATE AGAIN</strong></td>
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<tr>
<td><strong>Chairs</strong></td>
<td>Pedro L. Sánchez (Salamanca, Spain)</td>
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<td>James T. Willerson (Houston, USA)</td>
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<td><strong>Panel Discussants</strong></td>
<td>Timothy Henry (Los Angeles, USA)</td>
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<td>Doris Taylor (Houston, USA)</td>
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<td>Douglas W. Losordo (Chicago, USA)</td>
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<td>16.15 – 17.00</td>
<td><strong>Does adult cardiomyocytes renewal matters?</strong></td>
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<td>16.15 – 16.27</td>
<td>No, it is not sufficiently significant.</td>
<td>Olaf Bergmann (Stockholm, Sweden)</td>
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<td>16.27 – 16.39</td>
<td><strong>Yes, but we have to stimulate it</strong></td>
<td>Mark Sussman (San Diego, USA)</td>
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<td>16.39 – 17.00</td>
<td><strong>Discussion</strong></td>
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<td>17.00 – 17.45</td>
<td><strong>Should we forget cells and move to cell-free products?</strong></td>
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<td>17.00 – 17.12</td>
<td><strong>Cells are still the answer</strong></td>
<td>André Terzic (Minnesota, USA)</td>
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<td>17.12 – 17.24</td>
<td><strong>Let’s move to cell free products</strong></td>
<td>Susmita Sahoo (New York USA)</td>
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<td>17.24 – 17.45</td>
<td><strong>Discussion</strong></td>
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<td>17.45 – 18.30</td>
<td><strong>Jumping to the clinics. Do we need the industry?</strong></td>
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<td>17.45 – 17.57</td>
<td>No, only academia should play.</td>
<td>John Martin (London, UK)</td>
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<td>17.57 – 18.09</td>
<td><strong>Yes, industry partnership is essential.</strong></td>
<td>Douglas W. Losordo (Chicago, USA)</td>
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<td>18.09 – 18.30</td>
<td><strong>Discussion</strong></td>
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FRIDAY, 11th May 2018

9.00 – 9.30  BEST POSTERS PRESENTATION

Chairs:  Philippe Menasché (Paris, France)
         Adolfo Villa (Madrid, Spain)

9.30 – 10.30  RECENT CONTRIBUTIONS PRESENTED BY YOUNG INVESTIGATORS

Chairs:  Philippe Menasché (Paris, France)
         Adolfo Villa (Madrid, Spain)

Panel Discussants:

09.30 - 09.45  The endocannabinoid system is a novel therapeutic target for dystrophic cardiomyopathy
               Aoife Gowran (Dr. Pompilio’s group. Milan, Italy)

09.45 – 10.00  Fetostopic therapy
               Rodrigo Ruano (Dr. Terzic’s group. Rochester, USA)

10.00 – 10.15  Novel 3D technologies: beyond bioprinting in cardiac tissue engineering
               Manuel Mazo (Dr. Prosper’s group. Pamplona, Spain)

10.15 – 10.40  Discussion

10.40—11.00  Coffee Break
11.00 – 12.30  THE FIELD IN PERSPECTIVE
(Joint Session organized with the Working Group on Cardiovascular Regenerative and Reparative Medicine –CARE - of the European Society of Cardiology)

Chairs:  Francisco Fdez-Avilés (Madrid, Spain)
          James T. Willerson (Houston, USA)
Panel Discussants:  Philippe Menasché (Paris, France)
          Javier Bermejo (Madrid, Spain)
          André Terzic (Rochester, USA)

11.00 - 11.15  Advanced therapies regulation framework. Differences around the world
Sol Ruiz (Madrid, Spain)

11.15 – 11.30  Engineering cardiac muscle tissue. A maturating field of research
Thomas Eschenhagen (Hamburg, Germany)

11.30 – 11.45  Phenotyping heart failure in the assessment of advanced therapies
Anthony DeMaria (San Diego, USA)

11.45 – 12.00  Rethinking clinical research in advanced cell therapy
Philippe Menasché (Paris, France)

12.00 – 12.30  Discussion

12.30—13.00  Break

13.00 – 13.30  CLOSING KEYNOTE LECTURE
Success and pitfalls in the cardiovascular failure battle. How long does it take?
Chair:  Arturo Fernández Cruz (Madrid, Spain)
Speaker:  John F. Martin (London, UK)

13.30 – 14.00  FIFTH MADRID CARDIAC REGENERATION AWARDS

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

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- Instituto de Investigación Sanitaria Hospital Gregorio Marañón.
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- 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)
EDUCATIONAL OBJECTIVES

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 in 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.
MEETING VENUE

C/ Ibiza, 43.  28007 Madrid, Spain

DATE

May 10th – 11th, 2018

OFFICIAL LANGUAGES

English

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