10th INTERNATIONAL SYMPOSIUM ON STEM CELL THERAPY & CARDIOVASCULAR INNOVATIONS

www.cardiovascularcelltherapy.com

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www.cardiovascularcelltherapy.com
THURSDAY, 6th June 2013

7:45 - 8:30 REGISTRATION

8:30 - 9:00 WELCOMING

9:00 - 9:25 OPENING SPECIAL LECTURES

9:00 - 9:25 The Madrid stem cell cardiovascular meeting. Ten years after.
John Martin (London, UK)

9:30– 10:30 OPENING LECTURES

9:30 - 10:10 The revolution of induced pluripotent stem cells. Next challenges before clinical application.
Shinya Yamanaka (Kyoto, Japan)

10:00 - 10:30 Title
Andreas Zeiher (Frankfurt, Germany)

Pitfalls of cardiac stem cell therapy. The emergent role of tissue engineering and organ manufacturing
Doris A. Taylor (Houston, USA)

10:30 - 12:10 WHAT’S NEW IN STEM CELL THERAPY FOR CARDIAC REPAIR? - I

10:30 - 10:45 Cardiac stem cells. Are they the answer?
Luis R. Borlado (Madrid, Spain)

10:45 - 11:00 Cardiovascular applications of IPs
Juan C. Izpisúa (La Jolla, USA)

11:00 - 11:15 Human embryonic stem cell for postinfarction myocardial repair
Warren Sherman (New York, USA)

11:15 - 11:30 The use of human embryonic stem cells for treat repair: Major translational issues
Philippe Menasché (Paris, France)

11:30 - 11:45 How to make cells more efficient
Andre Terzic (Rochester, USA)

11:45 - 12:10 Discussion
**SCIENTIFIC AGENDA**

**THURSDAY, 6th June 2013**

### 12:10 - 12:30  
**COFFEE BREAK**

### 12:30 - 14:10  
**WHAT’S NEW IN STEM CELL THERAPY FOR CARDIAC REPAIR? - II**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 – 12:45</td>
<td>Pacemaker cells. Present and future</td>
<td>Ira S. Cohen</td>
<td>New York, USA</td>
</tr>
<tr>
<td>12:45 – 13:00</td>
<td>“In vivo” detection of stem cell viability</td>
<td>Philip C. Yang</td>
<td>Stanford, USA</td>
</tr>
<tr>
<td>13:00 – 13:15</td>
<td>Chemokines and inflammation in heart disease. Adaptative or maladaptive</td>
<td>Stephanie Dimmeler</td>
<td>Frankfurt, Germany</td>
</tr>
<tr>
<td>13:15 – 13:30</td>
<td>Tissues and organ decellularization. Methods and criteria</td>
<td>Stephen S. Badylack</td>
<td>Pittsburg, USA</td>
</tr>
<tr>
<td>13:30 – 13:45</td>
<td>Stem cell delivery. Advantages of the retrograde approach</td>
<td>Jorge Tuma</td>
<td>Lima, Perú</td>
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<tr>
<td>13:45 – 14:10</td>
<td>Discussion</td>
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</tbody>
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### 14:10 - 15:00  
**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.

The 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 winners 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
**THURSDAY, 6th June 2013**

**SCIENTIFIC AGENDA**

**15:00 - 17:00  LATE BREAKING CLINICAL TRIALS IN STEM CELL THERAPY**

15:00 – 15:15  Intracoronary infusion of BM-MNC early or late after AMI – 4 months: results of the SWISS-AMI trial.
Daniel Sürder  (Lugano, Switzerland)

15:15 – 15:30  The ALCADIA (Autologous human cardiac-derived stem cell to treat ischemic cardiomyopathy) trial.
Hiroaki Matsuabra  (Kyoto, Japan)

15:30 – 15:45  Randomized comparison of allogenic vs autologous mesenchymal stem cells in patients with ischemic cardiomyopathy (POSEIDON)
Joshua Hare  (Miami, USA)

15:45 – 16:00  Long-term improvement of LV function and infarct size after cardiac stem cell therapy: 5-year follow-up of the MYSTAR study
Maryan Gyongyosi  (Vienna, Austria)

16:00 – 16:15  Combined G-CSF and intramyocardial injection of bone marrow cells in heart failure improves cardiac function and symptoms at 1 year.
Anthony Mathur  (London, UK)

16:15 – 16:30  Five-year results on intracoronary infusion of the mobilized peripheral blood stem cells by granulocyte colony-stimulating factor in patients with myocardial infarction.
Hyo-Soo Kim  (Seoul, South Korea)

16:30-17:00  Panel Discussion

**17:10 - 18:10  DISCOVERIES AND INVENTIONS**

17:10 – 17:25  Stem cell based organ engineering. The role of bioareactors
Joseph Consiglio  (Boston, USA)

17:25 – 17:40  Gadonanotubes as Magnetic Nanolabels for Stem Cell Detection
Emerson Perin  (Houston, USA)

17:40 – 17:55  Transplantation of an allogeneic vein bioengineered with autologous stem cells: a proof-of-concept study
Suchitra Sumitran-Holgersson  (Gothenburg, Sweden)

17:55 – 18:10  Fiberoptic cardioscopy for stem cell delivery.
Eric H. Duckers  (Rotterdam, The Netherlands)
THURSDAY, 6th June 2013

18:15 - 19:30  **EDUCATIONAL WORKSHOPS**

18:15 - 19:30  Workshop on practical stem cell biology made simple
18:15 - 19:30  Workshop on tissue engineering
FRIDAY, 7\(^{th}\) June 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00 - 9:40</td>
<td><strong>BEST POSTER PRESENTATION</strong></td>
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<tr>
<td>Chairs:</td>
<td>Philippe Menasché (Paris, France)</td>
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<td></td>
<td>Felipe Prosper (Pamplona, Spain)</td>
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<tr>
<td>9:00 - 9:10</td>
<td>Prizes-giving</td>
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<tr>
<td>9:10 - 9:25</td>
<td>Winner work presentation and discussion</td>
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<tr>
<td>9:25 - 9:40</td>
<td>Winner work presentation and discussion</td>
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<tbody>
<tr>
<td>9:50 - 11:10</td>
<td><strong>RECENT CONTRIBUTIONS PRESENTED BY YOUNG INVESTIGATORS</strong></td>
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<tr>
<td>9:50 – 10:05</td>
<td>Intracoronary injection of microsphere-encapsulated antagonim 92a to prevent post-infarction remodeling</td>
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<td></td>
<td>Neus Bellera (Barcelona, Spain. David García-Dorado’s group)</td>
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<tr>
<td>10:05 – 10:20</td>
<td>Very small embryonic-like cells (VSEL) – a novel population of cardiac stem cells</td>
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<td>Tomasz Jadczyk (Katowice, Poland. Michal Tendera’s group)</td>
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<tr>
<td>10:20 – 10:35</td>
<td>Allogenicity of human cardiac stem/progenitor cells orchestrated by programmed death ligand 1</td>
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<td>Laura Lauden (Paris, France. Dominque Charron’s group)</td>
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<td>10:35 – 10:55</td>
<td>Traceless reprogramming for proficient cardiogenicity of iPS cells</td>
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<td>Almudena Martinez (Rochester, USA. André Terzic’s group)</td>
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<tr>
<td>11:10 - 11:30</td>
<td><strong>COFFEE BREAK</strong></td>
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## HOT TOPICS OF THE YEAR

11:30 – 13:10

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>11:30</td>
<td>NON CARDIOVASCULAR TOPIC OF THE YEAR</td>
<td>Stem Cells and Spinal Cord Repair</td>
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<tr>
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<td></td>
<td>Evan Y. Snyder (La Jolla, USA)</td>
</tr>
<tr>
<td>11:50</td>
<td>BASIC CARDIOVASCULAR TOPIC OF THE YEAR</td>
<td>Fatty acids identified in the Burmese Python promote beneficial cardiac growth</td>
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<td>Leslie Leinwand (Tuscaloosa, USA)</td>
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<tr>
<td>12:10</td>
<td>TRANSLATIONAL CARDIOVASCULAR TOPIC OF THE YEAR</td>
<td>Stem cell based transcatheter aortic valve implantation</td>
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<td></td>
<td>Simon P. Hoerstrop (Zurich, Switzerland)</td>
</tr>
<tr>
<td>12:30</td>
<td>CLINICAL CARDIOVASCULAR TOPIC OF THE YEAR</td>
<td>Scientific analysis of the cardiac impact of bone marrow cells.</td>
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<td>Buddhadeb Dawn (Kansas, USA)</td>
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<tr>
<td>12:50</td>
<td>Discussion</td>
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</table>

## CLOSING SESSION

13:15 – 14:15

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:15</td>
<td>Cells for cardiac repair. Milestones and unmet needs</td>
<td>Eduardo Marban (Los Angeles, USA)</td>
</tr>
<tr>
<td>13:35</td>
<td>Extracellular heart architecture. Clues for regeneration</td>
<td>Renu Virmani (Gaithesbourg, USA)</td>
</tr>
<tr>
<td>13:55</td>
<td>Cardiovascular stem cell therapy. Looking fordward.</td>
<td>Valentin Fuster (New York, USA)</td>
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## ADJOURN

14:15 – 14:30

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>14:15</td>
<td>Francisco Fernández-Avilés (Madrid, Spain)</td>
</tr>
</tbody>
</table>
· Spanish Society of Cardiology. Continuing Medical Education Accreditation Program.

· EBAC (European Board for Accreditation in Cardiology). Activity accredited by the European Board for Accreditation in Cardiology.

· Comisión de Formación Continuada. Sistema Nacional de Salud.

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Hospital General Universitario Gregorio Marañón (Madrid, Spain)

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Texas Heart Institute
(Houston, USA)

Andras W. Zeiher
University of Frankfurt (Germany)
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Ana Fernández Baza
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Servicio de Cardiología
Hospital General Universitario Gregorio Marañón

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Stefan Janssens (Leuven, Belgium) Andreas Zeiher (Frankfurt, Germany)

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Adolfo Villa
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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 (RECAVA)
- 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)
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 about and discussing the current state of affairs and the future prospects for the application of these new therapeutic methods.

c. Doctors involved in interventions dedicated to cardiovascular pathology and who are interested in the results and perspectives of gene vehiculization techniques, the stimulation of endogenous progenitors, cell transplant or electromechanical helps to fight cardiovascular disease.

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 those present will have acquired the following skills:

1. Knowledge and ability to discuss the latest advances 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 in the renewal and repair capacity of the damaged cardiovascular structure via the transplant of adult or embryonic stem cells or the stimulation of endogenous progenitors.

3. Knowledge about and be able 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 be able to establish contacts for educational, scientific, and healthcare purposes.
Stephen S. Badylack  
(Pittsburg, USA)

Roberto Bolli  
(Louisville, USA)

Luis R. Borlado  
(Madrid, Spain)

Ira S. Cohen  
(New York, USA)

Joseph Consiglio  
(Boston, USA)

Buddhadeb Dawn  
(Kansas, USA)

Stephanie Dimmeler  
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(Sweden)

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(Lugano, Switzerland)

Naofumi Takehara  
(Kyoto, Japan)

Andre Terzic  
(Rochester, USA)

Jorge Tuma  
(Lima, Perú)

Renu Virmani  

Shinya Yamanaka  
(Kyoto, Japan)

Philip C. Yang  
(Stanford, USA)
MEETING VENUE
C/ Ibiza, 43. 28007 Madrid, Spain

DATE
June 6th and 8th, 2013

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

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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.
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