<table>
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<th>Time</th>
<th>Monday, October 24, 2011</th>
<th>Tuesday, October 25, 2011</th>
<th>Wednesday, October 26, 2011</th>
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<tr>
<td>08:00 to 10:00</td>
<td>Cell Special Symposium</td>
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<td>Xeno SOTIA: Cellular</td>
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<td>Therapies in Xenotransplantation</td>
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<td>10:00 to 11:00</td>
<td>CTS-UAA Joint</td>
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<td>Henry Session</td>
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<td>11:00 to 12:00</td>
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<td>Business Meeting</td>
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<td>13:00 to 15:00</td>
<td>CTS Presidential Address</td>
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<td>15:00 to 16:00</td>
<td>Coffee Break / Exhibits</td>
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<tr>
<td>16:00 to 18:00</td>
<td>Poster Session</td>
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<tr>
<td>18:00 to 19:00</td>
<td>Welcome Reception</td>
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**One Lambda Sponsored Lunch Symposium (Salon 3)**
Exhibits / Poster Viewing (Salon 4 & Foyer Area)
12:30 to 13:30

**CTS-UAA Joint Closing Session (Salon 5)**
13:30 to 14:30

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**Regulations open**
13:00 to 18:00

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**Final Program**

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**International Xenotransplantation Association**

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**CTS-UAA Joint Closing Session (Salon 5)**
13:30 to 14:30

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**Welcome Reception**
16:30 to 19:30

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**Congress Dinner 20:00**
(The Vienna House Hotel Congress)
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<td><strong>CTS-IXA Joint</strong></td>
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<tr>
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<td><strong>Cellular Therapies in Xenotransplantation</strong></td>
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<td><strong>Cell: Islets</strong></td>
<td><strong>Cell: Clinical Islets</strong></td>
<td><strong>Cell: Encapsulated</strong></td>
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<td><strong>Salon 1</strong></td>
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<td><strong>Cell: Stem Cells</strong></td>
<td><strong>Cell: Encapsulated</strong></td>
<td><strong>Cell: Coagulation &amp; Thrombosis II</strong></td>
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<td><strong>Xeno: Generic Engineering &amp; Preclinical Models</strong></td>
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<td><strong>Xeno: Xenozoonoses</strong></td>
<td><strong>Cell: Bioengineering &amp; Biomaterials</strong></td>
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<td><strong>Xeno: Coagulation &amp; Thrombosis</strong></td>
<td><strong>Cell: Hematopoietic, Neural Cells and Tissue Repair</strong></td>
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<tr>
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<td><strong>Poster Session</strong></td>
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<td><strong>Congress Dinner 20:00</strong></td>
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<tr>
<td><strong>18:00 to 18:30</strong></td>
<td><strong>(Wine &amp; Ooze)</strong></td>
<td><strong>18:00 to 19:30</strong></td>
<td><strong>(The Vermont House Casa Caffeina)</strong></td>
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<td><strong>Salon 3</strong></td>
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<td><strong>Poster Session</strong></td>
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<td><strong>18:00 to 19:00</strong></td>
<td><strong>(The Vermont House Casa Caffeina)</strong></td>
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Venue
Loews Miami Beach Hotel
1601 Collins Avenue
Miami Beach, Florida, 33139
Phone: (305) 604-1601

Important Numbers
Emergency: 911
Information Assistance: 411
Traffic Hotline: 511
Miami International Airport: (305) 876-7000
Palm Beach International Airport: (561) 471-7403
Ft. Lauderdale / Hollywood International Airport: (954) 359-1200
Tri-Rail: (800) TRI-RAIL
Amtrak Railroad: (800) 872-7245
Miami-Dade Metro Transit: (305) 770-3131
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Message from Congress Chair

Dear Colleagues

I could not think of a better place than sunny Florida’s South Beach for a very warm welcome to our colleagues, friends and guests of the Cell Transplant Society (CTS) and the International Xenotransplantation Association (IXA) Congress. This is a particularly meaningful congress for many of us and to me personally, as it marks the 20th anniversary of the CTS, which we founded in 1991. During that year the first congress was held in Pittsburgh, PA, under the honorary presidency of Paul E. Lacy, E. Donnall Thomas and Thomas E. Starzl. The first banquet speaker was xenotransplant pioneer Keith Reestma and talked about the unique opportunities we had in cellular therapies to keep a multidisciplinary effort together, avoiding the fragmentation that occurred in organ transplant subspecialties. Now more than ever, we are facing expanding epidemics of chronic degenerative conditions and escalation of health care expenditures that are becoming economically unsustainable.

More than ever, we need to support cure-focused efforts, in spite of all an increasing load of barriers to innovation, including economic, regulatory and institutional, to name a few. Despite these challenges, our fields have dramatically progressed since then, and clinical trials of cellular therapies have been expanding worldwide. In islet transplantation for example, we are this month celebrating completion of the series of islet cell transplants representing the first registration (FDA Phase III Trial) trial in the field. Collaborative networks are expanding internationally, breaking geographic barriers to team efforts towards the development of new therapeutic strategies. There are still many challenges on the path of development of cell transplant and xenotransplant clinical applications, but more than ever I am optimistic for the opportunity we collectively have to overcome them and continue our path towards the development of cures for the patients we serve.

A special thank you to our sponsors, who have found a way to support this important initiative despite challenging economic times; to the TTS International Headquarter office for the outstanding logistic and conference organizational support, especially to Filomena Picciano, Catherin Parker and Robert Colarusso; to our presidents Emanuele Cozzi and Stephen Strom; to our LOC Program Committee and Finance Committee chaired by Phillip O'Connell and Luca Inverardi; and last but not least, to all of you participating in this Congress, contributing to define the future of cellular therapies and xenotransplantation.

I wish you all the best, for this meeting and for a productive and successful continuation of your professional efforts in the future.

Camillo Ricordi,
CTS-IXA 2011 Joint Congress Chair
Message from CTS and IXA Presidents

Dear Congress Attendees,

I would like to welcome you to warm and wonderful Miami for the 20th Anniversary celebration and Congress of the Cell Transplant Society.

On behalf of the society council, I welcome you to enjoy the expansive collection of presentations that are offered at this years Congress. In terms of topics, cell types and scientific topics covered, this surely must be the most diverse Congress in all of the 20 years.

Please enjoy the comfortable setting, the state of the art science and the opportunity to meet face to face with investigators from different fields with the same commitment to science and regenerative medicine as you.

Stephen Strom,
CTS President

Dear Colleagues,

On behalf of the Council of the International Xenotransplantation Association (IXA), it is my pleasure to welcome you to Miami at the CTS-IXA 2011 Joint Congress.

The Program Committee has put together a very interesting program in the context of which the most eminent scientists and clinicians will share with us their knowledge and experience. The meeting will include state-of-the-art lectures, oral communications and poster presentations that will enable you to get up-to-speed with the latest advancements in this exciting field.

I look forward to meeting you and hope that you will enjoy your stay with us in Miami.

Emanuele Cozzi,
IXA President
Committees

CONGRESS CHAIR

Camillo Ricordi, Miami, FL, USA

SCIENTIFIC PROGRAM COMMITTEE

Philip O’Connell, Australia - Chair
Luca Inverardi, USA - Co-Chair
Peter Cowan, Australia
Emanuele Cozzi, Italy
Bernhard J. Hering, USA
Jeffrey Hubbell, Switzerland
Takaaki Kobayashi, Japan
Paul R. Sanberg, USA
Stephen Strom, USA
Megan Sykes, USA
Jacques Tremblay, Canada
Júlio C.Voltarelli, Brazil
Kathryn Wood, UK

LOCAL ORGANIZING COMMITTEE

Jeffrey S. Augenstein
Evangelos Badiavas
Mary Bunge
George W. Burke
Herman Cheung
Dalton Dietrich
Joshua M. Hare
Norma Kenyon
Krishna Komanduri
Thomas Malek
Ian McNiece
Rajendra Pahwa
Antonello Pileggi
Eckhard Podack
Paul R. Sanberg
Paul Schiller
David Seo
Cherie Stabler
Thomas H. Temple

FINANCE COMMITTEE

Luca Inverardi, USA – Chair
Peter Cowan, Australia
Jeremy Chapman, Australia
Anil Dhawan, UK
Stephen Strom, USA
Invited Speakers

Daniel Anderson, Cambridge, MA, USA
Ignacio Anegon, Nantes, France
Evangelos V. Badiavas, Miami, FL, USA
Federico Bertuzzi, Milan, Italy
Peter Buchwald, Miami, FL, USA
Leo Bühler, Geneva, Switzerland
Guerard Byrne, London, UK
Anna Casu, Pittsburgh, PA, USA
Peter Cowan, Melbourne, Australia
Emanuele Cazzi, Padova, Italy
Karen Dwyer, Fitzroy, VC, Australia
Burcin Ekser, Pittsburgh, PA, USA
Mauro Ferrari, Houston TX, USA
Jay Fishman, Boston, MA, USA
Mark Furth, Chapel Hill, NC, USA
Cesare Galli, Cremona, Italy
Edward K. Geissler, Regensburg, Germany
Pierre Gianello, Brussels, Belgium
Ronald G. Gill, Aurora, CO, USA
Fabio Grassi, Bellinzona, Switzerland
Joshua Hare, Miami, FL, USA
Bernhard J. Hering, Minneapolis, MN, USA
Suzanne T. Ildstad, Louisville, KY, USA
Luca Inverardi, Miami, FL, USA
Norma Kenyon, Miami, FL, USA
Allan D. Kirk, Atlanta, GA, USA
Krishna Komanduri, Miami, FL, USA
Gregory S. Korbutt, Edmonton, AB, Canada
Maria Koulmanda, Boston, MA, USA
Jonathan Lakey, Orange, CA, USA
Giuseppe Mucci, Falciano, San Marino, Italy
Bo Nilsson, Uppsala, Sweden
Harald C. Ott, Boston, MA, USA
Damien D. Pearse, Miami, FL, USA
Andrew Pecora, Hackensack, NJ, USA
Randall Prather, Columbia, MO, USA
Camillo Ricordi, Miami, FL, USA
Allan Robins, La Jolla, CA, USA
Simon C. Robson, Boston, MA, USA
Reinhard Schwinzer, Hannover, Germany
Jorg D. Seebach, Geneva, Switzerland
David Seo, Miami, FL, USA
Robyn Sutherland, Parkville, Australia
Megan Sykes, New York, NY, USA
Ralf R. Tönjes, Langen, Germany
Yvan Torrente, Milan, Italy
Carlo Tremolada, Milan, Italy
Carlo Ventura, Bologna, Italy
Matthias G. von Herrath, La Jolla, CA, USA
Collin Weber, Atlanta, GA, USA
Kazuhiko Yamada, Brookline, MA, USA
Session Moderators

Curie Ahn, Korea
Ignacio Anegon, France
David Ayares, USA
Agnes Azimzadeh, USA
Evangelos V. Badiavas, USA
A.N. Balamurugan, USA
Allison Boyer, USA
Ekaterine Berishvili, Georgia
Thierry Berney, Switzerland
Federico Bertuzzi, Italy
Gilles Blancho, France
Rita Bottino, USA
Michael Breimer, Sweden
Guerard Byrne, United Kingdom
Anna Casu, Italy
Joanne Chia, Australia
David K.C. Cooper, USA
Peter Cowan, Australia
Emanuele Cozzi, Italy
Joachim Denner, Germany
Denis Dufrane, Belgium
Karen Dwyer, Australia
Burcin Ekser, USA
Ewa Ellis, Sweden
Christopher Fraker, USA
Mark Furth, USA
Olga Garkavenko, New Zealand
Roberto Gramignoli, USA
Fabio Grassi, Switzerland
Shane Grey, Australia
Joshua Hare, USA
Bernhard J. Hering, USA
Suzanne Ildstad, USA
Carl Jorns, Sweden
Zurab Kakabadze, Georgia
Allan D. Kirk, USA
Takaaki Kobayashi, Japan
Gregory S. Korburt, USA
Maria Koulmanda, USA
Ian F.C. McKenzie, Australia
Raphael Meier, Switzerland
Shuji Miyagawa, Japan
Bo Nilsson, Sweden
Kazuo Ohashi, Japan
Chung-Gyu Park, Korea
Riccardo Pastori, USA
Lorenzo Piemonti, Italy
Antonello Pileggi, USA
Cristiana Rastellini, USA
Gina Rayat, Canada
Robert Rieben, Switzerland
Simon C. Robson, USA
David H. Sachs, USA
Susan Safley, USA
Paul Schiller, USA
Henk-Jan Schuurman, USA
Reinhard Schwinzer, Germany
Jorg D. Seebach, Switzerland
Paolo Simioni, Italy
Jean-Paul Soulillou, France
Cherie Stabler, USA
Stephen Strom, USA
Megan Sykes, USA
Gregory Szot, USA
Yasuhiro Takeuchi, United Kingdom
A Joseph Tector, USA
Alice Tomei, USA
Carlo Tremolada, Italy
Carlo Ventura, Italy
Collin Weber, USA
Kazuhiko Yamada, USA
Shounan Yi, Australia
Abstract Reviewers

Piero Anversa, USA
Evangelos V. Badiavas, USA
Leo Bühler, Switzerland
George W. Burke, USA
Riccardo Calafiore, Italy
Jeremy R. Chapman, Australia
Anil Dhawan, UK
W. Dalton Dietrich, USA
Dominic Dwyer, Australia
Karen Dwyer, Australia
David Eve, USA
Pierre Gianello, Belgium
Wayne Hawthorne, Australia
Bernhard Hering, USA
Luca Inverardi, USA
Tom Kay, Australia
Takaaki Kobayashi, Japan

Krishna Komanduri, USA
Thomas Malek, USA
Ian McNiece, USA
Phillip O’Connell, Australia
Richard Pierson, USA
Antonello Pileggi, USA
Gina Rayat, Canada
Lola Reid, USA
Camillo Ricordi, USA
David H. Sachs, USA
Paul Sanberg, USA
Paul Schiller, USA
Helena Smith-Hurst, Australia
Cherie Stabler, USA
Stephen Strom, USA
Megan Sykes, USA
Annika Tibell, Sweden
Alice Tomei, USA
Carlo Ventura, Italy
Kazuhiko Yamada, USA
The Cell Transplant Society is an international, non-profit, incorporated, collegial association of scientists with background and/or interest in the field of cellular transplantation.

The Cell Transplant Society exists to promote research and collaboration in cellular transplantation. The research interests of members include pancreatic islets, bone marrow, endothelial, epidermal, myoblast, neural and stem cells.

Investigators of cell and tissue transplantation share problems and research targets on topics such as separation techniques, culture methods, cryopreservation and banking, pretransplant immuno-modulation, micro-and-macrocapsulation, bioartificiality, tolerance, xenografts, quality control, implantation sites and techniques, experimental and clinical transplantation and gene therapy.

2009-2011 CTS COUNCIL MEMBERS

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>City</th>
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<tbody>
<tr>
<td>President 2010-2013</td>
<td>Stephen Strom</td>
<td>Pittsburgh</td>
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<tr>
<td>President 2009-2010</td>
<td>Naoya Kobayashi</td>
<td>Okayama</td>
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<tr>
<td>Immediate Past President</td>
<td>Ole Isacson</td>
<td>Belmont</td>
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<tr>
<td>Secretary</td>
<td>Anil Dhawan</td>
<td>London</td>
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<td>Treasurer</td>
<td>Clark K. Colton</td>
<td>Cambridge</td>
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<td>Executive Director</td>
<td>Camillo Ricordi</td>
<td>Miami</td>
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<td>Thierry Berney</td>
<td>Geneva</td>
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<td>Terry B. Strom</td>
<td>Boston</td>
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<td>Jane Lebkowski</td>
<td>Menlo Park</td>
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<td>Ira Fox</td>
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<td>Jean-Thomas Vilquin</td>
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<td>Maria Koulmanda</td>
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<td>Anthony Attala</td>
<td>Winston-Salem</td>
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</table>

CTS Members are invited to attend the CTS Presidential Address on Tuesday, October 25 at 14:30 in Americana Salon 3, followed by the CTS Business meeting at 15:30.

For more information about the Cell Transplant Society, please find our website at www.tts.org/CTS
Information about IXA

The International Xenotransplantation Association (IXA) was established at the Montreal '98 Congress of The Transplantation Society, with the aim of providing a forum for those with a special interest in Xenotransplantation.

The IXA's mission is to promote xenotransplantation as a safe, ethical, and effective therapeutic modality by:

1. fostering the science of xenotransplantation through promotion of ethical clinical and pre-clinical research, productive discourse, and collaboration;
2. educating health care providers and lay persons through broad, representative participation in interactive public debate; and
3. guiding the development of scientifically sound, internationally consistent public policy that is responsive to new developments in the field and acknowledges varying social, ethical and legal frameworks.

The IXA's core mission is closely aligned with the principles outlined in the Cartagena Protocol on Biological Diversity. This international agreement describes international norms for the use of genetically modified animals “to contribute to the development of human welfare and the promotion of environmental conservation on a global basis.” The Cartagena Protocol specifically seeks to “promote access to and transfer of technologies, including biotechnology” for the advancement of human health, and “to ensure the development of appropriate procedures to enhance the safety of biotechnology in the context of the Convention’s overall goal of reducing all potential threats to biological diversity, taking also into account the risks to human health.”

### 2009-2011 IXA COUNCIL MEMBERS

- **President**: Emanuele Cozzi, Italy (2011)
- **Immediate Past President**: Richard N. Pierson III, USA (2011)
- **President Elect**: Bernhard Hering, USA (2011)
- **Secretary/Treasurer**: Peter Cowan, Australia (2013)

IXA Members are invited to attend the IXA Presidential Address on Monday, October 24 at 14:30 in Americana Salon 3, followed by the IXA Business meeting at 15:30.

For more information about the International Xenotransplantation Association, please find our website at [www.tts.org/ixa](http://www.tts.org/ixa)
Sponsors Acknowledgement

The CTS-IXA 2011 Joint Congress would like to acknowledge the following companies for their generous contribution.

GOLD

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Mercodia

The Transplantation Society
VitaCyte
Xenotransplantation
The Transplantation Society Travel Grants

The Transplantation Society granted a number of travel grants to assist young investigators to attend the CTS-IXA 2011 Joint Congress.

CONGRATULATION TO OUR RECIPIENTS!

XENO TRACK RECIPIENTS

The TTS Travel Grants will be distributed during the International Xenotransplantation Association Presidential Address on Monday, October 24, 2011 at 14:30.

Hannes Kalscheuer, Germany
322 Tolerance, function and homeostasis of human T cells, including Tregs, developing in pig thymus xenografts

Zurab Machaidze, USA
330 Transplantation of encapsulated porcine hepatocytes improves metabolic function and survival in baboons with acute liver failure

Peta Phillips, Australia
171 Gal-deficient porcine neonatal islets that express human CD55 and CD59 are protected from IBMIR in a baboon model

Masayuki Tasaki, Japan
176 Prolongation of xenoegeneic islet function using an HGF-based immunosuppressive regimen in a CLAWN miniature swine-to-cynomologous monkey model

Martin Wijkstrom, USA
172 Gal-knockout pigs transgenic for hCD46 and islet-specific TFPI/pCTLA4lg have normal glucose metabolism and isolated islets exhibit normal glucose and arginine responses and should be considered as donors for islet xenotransplantation

CELL TRACK RECIPIENTS

The TTS Travel Grants will be distributed during the Cell Transplant Society Presidential Address on Tuesday, October 25, 2011 at 14:30.

Daniel Bowers, USA
197 Supporting islet transplant using polymer nanofiber scaffolds loaded with proangiogenic and immune suppressive compounds

Joanne Chia, Australia
201 CD39 over-expression prevents autoimmune diabetes through adenosine 2 receptor (A2R) dependent mechanisms

Gurvinder Kaur, USA
387 Immune-privileged Sertoli cells modulate the cellular immune response to survive as allografts

Raphael Meier, Switzerland
112 Encapsulated human multipotent mesenchymal stromal cells maintain differentiation capacity and have anti-fibrotic effects

Nathan Zammit, Australia
386 Immunosuppression free long-term islet allograft tolerance achieved by dual blockade of NF-kappaB and JNK/AP-1

CTS-IXA 2011 Joint Congress 11
INSTRUCTIONS TO ORAL PRESENTERS AND INVITED SPEAKERS

Abstracts selected for Oral Presentation are presented during the Parallel Sessions as indicated in the program.

All speakers have the check into the Speaker Ready Room at least 3 hours in advance of their session to download their presentation onto the central computer. The Speaker Ready Room is located on the second level in the Sands/New Yorker Room. The Speaker Ready Room is open at the following times:

- **Sunday, October 23** from 15:00 to 18:30
- **Monday, October 24** from 07:00 to 18:00
- **Tuesday, October 25** from 07:00 to 18:00
- **Wednesday, October 26** from 07:00 to 15:30

INSTRUCTIONS TO POSTER PRESENTERS

Participants will view posters in the Americana Salon 4 and Foyer Area during lunches and breaks, therefore authors are encouraged to be present at their posters during those times. The official Poster Viewing hours are listed below.

Authors are responsible for the setting up and the removal of their posters according to the following schedule:

- **Mounting time**: Sunday, October 23 from 12:00 to 17:00
- **Poster Viewing**: Sunday, October 23 from 18:30 to 19:30  
  Monday, October 24 from 18:00 to 19:00  
  Tuesday, October 25 from 18:00 to 19:00
- **Removal**: Wednesday, October 26 from 10:30 to 12:00

Posters not removed by the specified time on the last day of their presentation will be removed and discarded by the Congress staff. CTS-IXA 2011 cannot accept liability for lost or damaged posters. We will not mail posters to authors after the Congress.

REGISTRATION HOURS

Registration will be open at the following hours:

- **Sunday, October 23** from 13:00 to 18:30
- **Monday, October 24** from 07:00 to 18:00
- **Tuesday, October 25** from 07:30 to 18:00
- **Wednesday, October 26** from 07:30 to 16:00

**Congress Registration Includes**: Access to the Sessions, Exhibit/poster area, Congress materials, coffee breaks and welcome reception.

The Symposium registration fee does not include lunches. The hotel concierge can provide you a list of nearby restaurants.

NAME BADGES

For security and regulation purposes, please wear your badges during all Congress Sessions and social events.

INTERNET CORNER

Participants will be able to access the internet on the computers available at the Internet Corner located in the Americana Foyer Area (sponsored by Biorep® Technologies).
TUESDAY, OCTOBER 25, 2011 AT 20:00
THE VILLA BY BARTON G.
1116 OCEAN DRIVE,
MIAMI BEACH, FL, USA

Tickets: Sold Out

Dress Code: Business Casual

Located: about 10 minutes walking distance from the Loews Miami Beach Hotel

The Villa By Barton G., a boutique hotel, restaurant and events space, was born as Casa Casuarina in 1930, built by architect, philanthropist, author and political reformer Alden Freeman as an homage to the oldest existing house in the western hemisphere, the "Alcazar de Colon" in Santo Domingo.

In 1937, after Freeman’s death, Casa Casuarina was bought by Jacques Amsterdam, who renamed it "The Amsterdam Palace." Operated as an apartment building, it housed artists attracted by its architectural curiosity.

In 1992, couturier Gianni Versace first encountered Casa Casuarina. Versace exquisitely restored, expanded, and embellished its features, adding the south wing, the pool and garden areas.

The Casa became a private club in September 2000. Events impresario/restaurateur Barton G. Weiss took over the mansion in December 2009, imprinting his own signature style on the storied house at 1116 Ocean Drive, reopened as a hotel, restaurant and venue known as The Villa By Barton G.
CONGRESS LEARNING OBJECTIVES

1. Describe the tissue engineering approaches that can be used to achieve this objective.
2. Discuss the role of nanotechnology and biomaterials in the delivery of tissue regeneration as a clinical therapy.
3. Explain how biomaterials can lead to local drug delivery which will allow new option in tissue regeneration.
5. Cite the potential uses and pitfalls of using pig neural cells as a treatment for Parkinsons disease.
6. Outline those clinical conditions where pig hepatocytes could be used as a substitute for liver transplantation.
7. Discuss how lessons learned from early clinical trials of T cell adoptive therapy in clinical allotransplantation may be applied to future clinical xenotransplant therapies.
8. Explain the role of acquired and innate immunity in the rejection of xenografts.
9. Evaluate the potential for tolerance and regulatory T cells in suppressing rejection.
10. Explain the potential and effectiveness of genetic modification of the donor for prolonging graft survival and preventing rejection without treatment of the recipient.
11. Identify infective risks and how to screen for them.
12. Specify what is required for the development and testing of immunosuppressive protocols that are suitable for clinical application.
14. Identify the point in treatment and product development where clinical trials would be justified.
15. Identify appropriate patients for clinical trials.
16. Identify which effective and novel immunosuppressive/immunomodulatory strategies are moving towards or have entered clinical trials.
17. Cite mechanisms which mediate the effect of immunomodulation/cell-based strategies for tolerance induction.
18. Assess which patients are most likely to benefit from the use of these approaches.
19. Cite the state of the art protocols that should be implemented in hematopoietic disorders.
20. Name the emerging strategies that show promise in improving outcomes, reducing side effects and improving patient survival.
21. Identify the emerging, new applications of cell transplantation that are moving towards large clinical trials or are ready to be tested in pilot trials.
ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of The Transplantation Society (TTS), the Cell Transplant Society (CTS) and the International Xenotransplantation Association (IXA). TTS is accredited by the ACCME to provide continuing medical education for physicians.

CREDIT DESIGNATION STATEMENT

TTS designates this live activity for a maximum of 23 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

HOW TO GET YOUR CME CERTIFICATE

To get your certificate, just go to: www.CmeCertificateOnline.com

Scroll down to the TTS logo on the left side of the screen and click on CTS-IXA 2011 JOINT CONGRESS on the right side. On the site, you will be asked to enter a password (which is: TTSCI), evaluate various aspects of the program and claim the number of hours you attended (1 credit per hour of learning activity). You may then print your certificate immediately (encouraged), anywhere you have internet access. A copy of the certificate will also be emailed to you in case you need to print additional copies (check your spam filter and junk email folder if you do not see it come through). The email copy is simply a backup in case you didn’t print it right away.

Important! The online certificate site will only be available from October 26, 2011 through November 30, 2011. After that date, the site will be removed and certificates will no longer be available. If you need a CE certificate, you must complete the evaluation and certificate process prior to that date, otherwise you will forfeit your credit for the course.

Please address any questions about the CE process to:
Jay Parker, Phone: [+1] 651.789.3716, Fax: [+1] 651.489.3387

CONGRESS EVALUATION

A Congress evaluation form is available in your delegate bag. Please complete and return to the registration desk at the end of the day on Wednesday, October 26, 2011.
Presidential Addresses

Monday, October 24, 2011
Americana Salon 3
14h30 to 15h30

Presidential Address
Emanuele Cozzi

IXA Honorary Member Presentation
Agustin P. Dalmasso

TTS Travel Awards Presentation for Xeno Track Recipients
followed by IXA Business Meeting

Tuesday, October 25, 2011
Americana Salon 3
14h30 to 15h30

Presidential Address
Stephen Strom

20th Anniversary of CTS Address
Camillo Ricordi

TTS Travel Awards Presentation for Cell Track Recipients
followed by CTS Business Meeting
18:00 - 18:30  CONGRESS WELCOME ADDRESS  AMERICANA SALON 3

Camillo Ricordi
Chair of the CTS-IXA 2011 Joint Congress

Stephen Strom
CTS President

Emanuele Cozzi
IXA President

Commemoration of Dr. Fritz H. Bach
by Agustin P. Dalmasso, United States

18:30 - 19:30  WELCOME RECEPTION  AMERICANA SALON 4
08:00 - 10:00  JOINT PLENARY SESSION  AMERICANA SALON 3

Moderators: Emanuele Cozzi, Italy
Stephen Strom, United States

100  Novel approaches to cardiac repair and regeneration
Harald C. Ott, Boston, MA, United States

101  Biomaterials, drug delivery and tissue engineering
Daniel Anderson, Cambridge, MA, United States

102  Nanotechnology and tissue repair - Bio meets technology
Mauro Ferrari, Houston, TX, United States

10:00 - 10:30  COFFEE BREAK  AMERICANA SALON 4

EXHIBIT / POSTER VIEWING

10:30 - 12:30  PARALLEL SESSION 1 (CELL TRACK)  AMERICANA SALON 1

ISLETS

Moderators: Appakalai N. Balamurugan, United States
Thierry Berney, Switzerland

103  Effects of immunosuppression on proliferation in transplanted islets
Stephan Kersting, Dresden, Germany

104  Vascularised small intestinal segment as an alternative site for pancreatic islet transplantation
Ekaterine Berishvili, Tbilisi, Georgia

105  Improving islet transplantation outcome by CXCR1/CXCR2 inhibition
Lorenzo Piemonti, Milan, Italy

106  Long term survival of allogeneic, nonhuman primate islets in non-biodegradable scaffolds within an omental pouch
Norma Kenyon, Miami, FL, United States

107  Stimulation of VEGF secretion in rat pancreatic islets using Liraglutide
Allan Langlois, Strasbourg, France

108  Comparing the intrahepatic and renal subcapsular sites for human islet engraftment into diabetic immunodeficient mice
R. Damaris Molano, Miami, FL, United States

109  Evaluation of vascularization and immunomodulation potential of islet/MSC scaffolds implanted in a nonhuman primate model
Cherie Stabler, Miami, FL, United States

110  Naturally pure islets for autotransplantation after total pancreatectomy for chronic pancreatitis
Appakalai N. Balamurugan, Minneapolis, MN, United States
10:30 - 12:30 | PARALLEL SESSION 2 (CELL TRACK)  

**STEM CELLS**

*Moderators: Raphael Meier, Switzerland  
Paul Schiller, United States*

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<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>111</td>
<td>Pharmacologically active microcarriers enhance the therapeutic effects of MIAMI cell transplanted in hemi-parkinsonian rats</td>
<td>Gaetan Delcroix</td>
<td>Miami, FL, United States</td>
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<td>112</td>
<td>Encapsulated human multipotent mesenchymal stromal cells maintain differentiation capacity and have anti-fibrotic effects</td>
<td>Raphael Meier</td>
<td>Geneva, Switzerland</td>
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<tr>
<td>113</td>
<td>Pancreatic islets-derived Mesenchymal stromal cells can enter the pancreatic endocrine commitment but do not achieve consistent maturation</td>
<td>Giacomo Lanzoni</td>
<td>Miami, FL, United States</td>
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<td>Inhibition of miR-7 in developing pancreas and in cultured pancreatic buds affects beta cell differentiation</td>
<td>Ricardo Pastori</td>
<td>Miami, FL, United States</td>
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<td>In utero intracardial injection of a transducible MafA protein accelerates pancreatic islet maturation</td>
<td>Ricardo Pastori</td>
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<td>Human amnion epithelial (hAE) stem cell transplant significantly improves phenotype and survival in a murine model of intermediate maple syrup urine disease (iMSUD)</td>
<td>Kristen Skvorak</td>
<td>Pittsburgh, PA, United States</td>
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<td>117</td>
<td>Generation of induced pluripotent stem cells from Amnion Epithelial cells</td>
<td>Roberto Gramignoli</td>
<td>Pittsburgh, PA, United States</td>
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<td>118</td>
<td>Contract-dependent modulation of the human immune response to pig cells by adipose-derived mesenchymal stem cells (AdMSC) from GTKO/CD46 pigs</td>
<td>Goutham Kumar</td>
<td>Pittsburgh, PA, United States</td>
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<td>119</td>
<td>Multi-transgenic pigs for vascularized pig organ xenografts</td>
<td>David Ayares</td>
<td>Blacksburg, VA, United States</td>
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<td>120</td>
<td>Islet-specific expression of TFPI, CD39, and CTLA4Ig in transgenic</td>
<td>David Ayares</td>
<td>Blacksburg, VA, United States</td>
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<td>pigs designed for xenoislet transplantation</td>
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<td>Relative efficiency of porcine and human CTLA4-Ig in inhibiting</td>
<td>Tadatsura Koshika</td>
<td>Tsukuba, Japan</td>
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<td>human CD4+ T cell responses costimulated by porcine and human B7</td>
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<td>molecules</td>
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<td>122</td>
<td>Over-expression of human HO-1 and A20 in porcine cells: Effects on</td>
<td>Reinhard Schwinzer</td>
<td>Hannover, Germany</td>
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<td>susceptibility to cell-mediated lysis and inflammatory cytokines</td>
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<td>123</td>
<td>A comparison of the in vitro human immune response to corneal cells</td>
<td>Hidetaka Hara</td>
<td>Pittsburgh, PA, United States</td>
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<td>from humans and genetically-modified pigs</td>
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<td>124</td>
<td>Zinc-finger nuclease mediated knockout of the porcine α1,3-</td>
<td>Bjoern Petersen</td>
<td>Neustadt, Germany</td>
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<td>galactosyltransferase gene</td>
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<td>Successful production and breeding of cloned pigs expressing</td>
<td>Takaaki Kobayashi</td>
<td>Nagoya, Japan</td>
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<td>human thrombomodulin in endothelial cells</td>
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<td>126</td>
<td>GaIT-KO/CD46/hTM triple-transgenic donor animals for pig-to-baboon</td>
<td>Nikolai Klymiuk</td>
<td>Oberschleissheim, Germany</td>
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<td>127</td>
<td>Miniature swine expressing human CD47 to enhance bone marrow</td>
<td>Aseda Tena</td>
<td>Boston, MA, United States</td>
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<td>engraftment in non-human primates</td>
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<td>LEA29Y transgenic pigs for overcoming cellular rejection in</td>
<td>Andrea Baehr</td>
<td>Oberschleissheim, Germany</td>
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<td>xenotransplantation</td>
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10:30 - 12:30  PARALLEL SESSION 4 (XENO TRACK)  AMERICANA SALON 2

INNATE IMMUNITY, XENOANTIGENS AND ANTIBODIES

Moderators: Jorg D. Seebach, Switzerland
Jean-Paul Soulillou, France

129  Induced T regulatory (iTreg) cells suppress T and B cell immune responses
Avneesh Singh, Bethesda, MD, United States

130  Blocking porcine sialoadhesin improves extracorporeal porcine liver xenoperfusion
Joshua Waldman, Toledo, MI, United States

131  T cell-directed immunosuppression is associated with downregulation of thrombin activation, but upregulation of inflammatory responses in xenograft recipients
Mohamed Ezzelarab, Pittsburgh, PA, United States

132  Comparison of Gal and non-Gal mediated cardiac xenograft rejection
Guerard Byrne, London, United Kingdom

133  Novel experimental models to test human NK cell recruitment to porcine endothelium and their role in cellular xenograft rejection
Amandine Pradier, Geneva, Switzerland

134  T cell-directed immunosuppressive therapy prevents development of natural anti-AB and anti-pig antibodies in infant baboons
Eefje Dons, Pittsburgh, PA, United States

135  Human xenogeneic immune responses to HD antigen in xenotransplantation
Sunghoon Hurh, Seoul, Korea

136  Difference in signal transduction between anti-A/B and anti-HLA antibody binding to endothelial cells
Kenta Iwasaki, Nagoya, Japan

137  Roles of B cells and Tregs in anti-CD45RB induced transplant tolerance to islet xenografts
Gaoping Zhao, Chengdu, P.R. China

138  Study of complement activation in a life supporting pig to primate xenotransplantation model using GAL KO pigs
Marta Vadori, Padova, Italy

139  Rat elicited anti-carbohydrate xenoantibodies crossreact with cells of multiple species and bacteria
Magdiel Pérez-Cruz, L’Hospitalet de Llobregat, Spain
12:30 - 13:30 LUNCH SYMPOSIUM

AMERICANA SALON 3
(SPONSORED BY ONE LAMBDA)

Paul I. Terasaki, Los Angeles, CA, United States
will review evidence that HLA antibodies are associated with failure
of organ transplants

Matthew Everly, Los Angeles, CA, United States
will discuss the importance of DSA-freedom and the means by
which DSA-freedom can be achieved to impact islet cell
transplantation outcomes

13:30 - 15:30 STATE-OF-THE-ART 1 (CELL TRACK)

COWRIE 2

EMERGING STRATEGIES IN CELL TRANSPLANTATION

Moderators: Carlo Ventura, Italy
            Evangelos V. Badiavas, United States

151 Cell therapies and regenerative strategies for diabetes
     Allan Robins, La Jolla, CA, United States

152 Cell based strategies for cardiac repair
     Joshua Hare, Miami, FL, United States

153 Novel strategies for treatment of neuromuscular disease conditions
     Yvan Torrente, Milan, Italy

154 Emerging strategies in bone marrow and hematopoietic cell
     transplants
     Krishna Komanduri, Miami, FL, United States

13:30 - 15:30 STATE-OF-THE-ART 2 (CELL TRACK)

AMERICANA SALON 1

IMMUNOMODULATION AND CELL BASED
STRATEGIES FOR TOLERANCE INDUCTION

Moderators: Fabio Grassi, Switzerland
            Shane Grey, Australia

155 Chimerism
     Suzanne Ildstad, Louisville, KY, United States

156 Immune regulation in transplant tolerance
     Ronald G. Gill, Aurora, CO, United States

157 Antigen-specific immune regulation or tolerance - which one
     would you choose?
     Matthias G. von Herrath, La Jolla, CA, United States

158 MSC
     Norma Kenyon, Miami, FL, United States
13:30 - 14:30  STATE-OF-THE-ART 3 (XENO TRACK)  
SAFETY AND REGULATION  
Moderators: Anna Casu, Italy  
Joachim Denner, Germany

159 Infectious disease issues in xenotransplantation  
Jay Fishman, Boston, MA, United States

160 Screening assays for PERV during the first clinical trials  
Ralf R. Tonjes, Langen, Germany

13:30 - 14:30  STATE-OF-THE-ART 4 (XENO TRACK)  
AMERICANA SALON 2  
T CELL MEDIATED RESPONSES AND PROSPECTS FOR TOLERANCE  
Moderators: Gina Rayat, Canada  
Karen Dwyer, Australia

161 Strategies for tolerance in xenotransplantation  
Megan Sykes, New York, NY, United States

162 T-Cell response to xenografts and local immunosuppression  
Robyn Sutherland, Parkville, Australia

14:30 - 15:30  PRESIDENTIAL ADDRESS  
AMERICANA SALON 3  
INTERNATIONAL XENOTRANSPLANTATION ASSOCIATION  
Presidential Address by Emanuele Cozzi, Italy

Presentation by IXA Honorary Member  
Dr. Agustin P. Dalmasso, MN, United States

Presentation of the TTS Travel Award for Xeno track Best Abstract

15:30 - 16:00  BUSINESS MEETING  
AMERICANA SALON 3  
INTERNATIONAL XENOTRANSPLANTATION ASSOCIATION

15:30 - 16:00  COFFEE BREAK  
AMERICANA SALON 4  
EXHIBIT / POSTER VIEWING
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<tr>
<th>Session Title</th>
<th>Abstract Title</th>
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<tr>
<td>ISLET XENOTRANSPLANTATION - PRECLINICAL MODELS</td>
<td>Gal-deficient porcine neonatal islets that express human CD55 and CD59 are protected from IBMIR in a baboon model</td>
<td>Peta Phillips</td>
<td>Westmead, Australia</td>
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<td>Gal-knockout pigs transgenic for hCD46 and islet-specific TFPI/pCTLA4Ig have normal glucose metabolism and isolated islets exhibit normal glucose and arginine responses and should be considered as donors for islet xenotransplantation</td>
<td>Martin Wijkstrom</td>
<td>Pittsburgh, PA, United States</td>
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<td>Beta-Air®, a subcutaneous implantable, oxygen supported, bio-artificial pancreas, restores glycemic control in xenogeneic diabetic mini-pig model</td>
<td>Uriel Barkai</td>
<td>Petach Tikva, Israel</td>
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<td>Islets and mesenchymal stem cells co-encapsulation can improve subcutaneous bioartificial pancreas survival in diabetic primates</td>
<td>Sophie Veriter</td>
<td>Brussels, Belgium</td>
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<td></td>
<td>The impact of heme oxygenase-1 (Ad-HO-1) on apoptosis of neonatal porcine cluster cell (NPCC)s and generation of human HO-1 transgenic pigs</td>
<td>Hye Jung Yeom</td>
<td>Seoul, Korea</td>
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<td>Prolongation of xenogeneic islet function using an HGF-based immunosuppressive regimen in a CLAWN miniature swine-to-cynomologous monkey model</td>
<td>Masayuki Tasaki</td>
<td>Boston, MA, United States</td>
</tr>
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<td></td>
<td>Function of microencapsulated adult porcine islet xenografts in streptozotocin-diabetic non-human primates</td>
<td>Susan Safley</td>
<td>Atlanta, GA, United States</td>
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<td></td>
<td>Instant C3a generation after intraportal porcine islets xenotransplantation in non-human primate is dependent on alternative complement pathway activation</td>
<td>Hee Jung Kang</td>
<td>Anyang, Korea</td>
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<td>Evaluation of various purified components in the development of an application-specific enzyme formulation for the isolation of porcine islets</td>
<td>Mike Green</td>
<td>Indianapolis, IN, United States</td>
</tr>
<tr>
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<td>In vitro and in vivo function of macroencapsulated adult porcine islets is enhanced by changes in the capsular matrix microenvironment</td>
<td>Robert Holdcraft</td>
<td>Xenia, OH, United States</td>
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<tr>
<td>16:00 - 18:00</td>
<td>PARALLEL SESSION 6 (XENO TRACK)</td>
<td>COWRIE 2</td>
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</tbody>
</table>
| XENOZOONOSES  | Moderators: Yasuhiro Takeuchi, United Kingdom  
               | Olga Garkavenko, New Zealand       |          |
| 182           | Emerging pathogens of concern in xenotransplantation  
               | Stacey Busby, Glasgow, United Kingdom |          |
| 183           | The hepatitis E virus does not appear to be transmitted via xenotransplantation  
               | Stacey Busby, Glasgow, United Kingdom |          |
| 184           | Does PERV transmit to recipient’s spouse and their offspring?  
               | Wei Wang, Changsha, P.R. China      |          |
| 185           | Reduction of the expression of porcine endogenous retroviruses (PERVs) in transgenic pigs by RNA interference: new studies  
               | Joachim Denner, Berlin, Germany    |          |
| 186           | Mechanism and immunological consequences of human cytomegalovirus entry into porcine cells  
               | Anne-Laure Millard, Zürich, Switzerland |          |
| 187           | PERV-C integration, expression and transmission of PERV to human cells  
               | Yasuhiro Takeuchi, London, United Kingdom |          |
| 188           | CpG hypomethylation as a marker of transcriptionally active porcine endogenous retroviruses  
               | Yasuhiro Takeuchi, London, United Kingdom |          |
| 189           | No long term transmission of PERV in fifty five patients receiving porcine skin xenografts  
               | Yasuhiro Takeuchi, London, United Kingdom |          |
| 190           | Porcine endogenous retrovirus (PERV) Integration in the pig genome  
               | Yasuhiro Takeuchi, London, United Kingdom |          |
16:00 - 18:00 PARALLEL SESSION 7 (CELL TRACK) AMERICANA SALON 2

BIOENGINEERING & BIOMATERIALS

Moderators: Ekaterine Berishvili, Georgia
            Kazuo Ohashi, Japan

192 In situ oxygen delivery to cellular transplants via hydrolytically activated biomaterials
    Cherie Stabler, Miami, FL, United States

193 Sustained function of syngeneic and allogeneic islets in a macroporous scaffold implanted in the rat omentum
    Maria M. Coronel, Miami, FL, United States

194 Localized drug delivery in a islet transplant site via engineered biomaterials
    Jessica D. Weaver, Miami, FL, United States

195 Silicone rubber membrane devices allow islet culture at 20 times the standard surface density with no adverse effects on viability, recovery, or potency
    Efstathios Avgoustiniatos, Lauderdale, MN, United States

196 Development and in vitro evaluation of Silica-based iron oxide particles as intracellular contrast agent for cellular imaging with MRI
    Nathanael Raschzok, Berlin, Germany

197 Supporting islet transplant using polymer nanofiber scaffolds loaded with proangiogenic and immune suppressive compounds
    Daniel Bowers, Charlottesville, VA, United States

198 Oxygen modulation in the culture of islets of Langerhans: the use of PFC-PDMS gas permeable membranes
    Christopher Fraker, Miami, FL, United States
### 16:00 - 18:00  PARALLEL SESSION 8 (CELL TRACK)  COWRIE 1  IMMUNOLOGY (IMMUNOISOLATION)

**Moderators:** Maria Koulmanda, United States  
Alice Tomei, United States

199  High resolution, non-invasive longitudinal live imaging of immune responses  
**Midhat H Abdulreda**, Miami, FL, United States

200  Antibodies: barriers to islet cell transplantation  
**Lorenzo Piemonti**, Milan, Italy

201  CD39 over-expression prevents autoimmune diabetes through adenosine 2 receptor (A2R) dependent mechanisms  
**Joanne Chia**, Fitzroy, Australia

202  Influence of islet culture on angiogenic and inflammatory mechanisms  
**Allan Langlois**, Strasbourg, France

203  Longitudinal, live imaging of islet autoimmune destruction in NOD mice  
**Antonello Pileggi**, Miami, FL, United States

204  Antioxidant therapy maximizes tolerance induction to islet allografts  
**Carmen Fotino**, Miami, FL, United States

205  Mesenchymal stem cells prolong the survival of xenogenic neurons in the brain  
**Philippe Naveilhan**, Nantes, France

206  Transplanted donor Treg cells can stably engraft leading to tolerance to allogeneic bone marrow cells in NOD mice  
**Allison Bayer**, Miami, FL, United States

### 18:00 - 19:00  POSTER SESSION  AMERICANA SALON 4 & FOYER AREA  WINE AND CHEESE  
SEE PAGES 49-63
08:00 - 10:00 SPECIAL SYMPOSIUM ON AMERICANA SALON 3
CELLULAR THERAPIES IN XENOTRANSPLANTATION

Moderators: Ian F.C. McKenzie, Australia
David H. Sachs, United States

300 Pig neural grafts for Parkinson’s disease
Emanuele Cozzi, Padova, Italy

301 Xenotransplantation therapies for diabetes - advantages and roadblocks
Bernhard J. Hering, Minneapolis, MN, United States

302 Immunomodulatory and other strategies to reduce the immunosuppressive burden: Lessons from all transplantation
Edward K. Geissler, Regensburg, Germany

303 The role of pig hepatocytes in liver transplantation
Leo Bühler, Geneva, Switzerland

10:00 - 10:30 COFFEE BREAK AMERICANA SALON 4
EXHIBIT / POSTER VIEWING
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<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
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<tbody>
<tr>
<td>10:30 - 12:30</td>
<td>PARALLEL SESSION 9 (CELL TRACK) HEPATOCYTES AND MYOBLASTS</td>
<td>AMERICANA SALON 1</td>
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<tr>
<td></td>
<td>Assessment of cold stored human hepatocytes for transplantation: Storage of liver tissue vs. isolated hepatocytes</td>
<td>Carl Jorns, Stockholm, Sweden</td>
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<td>304</td>
<td>Effects of pro-inflammatory cytokines on human hepatocyte drug and ammonia metabolism</td>
<td>Roberto Gramignoli, Pittsburgh, PA, United States</td>
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<tr>
<td>305</td>
<td>Hepatocytes from metabolic disease patients: a potential cell source for domino transplant</td>
<td>Roberto Gramignoli, Pittsburgh, PA, United States</td>
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<td>306</td>
<td>Neohepatic Liver Graft - a novel concept of in vivo tissue-engineering</td>
<td>Martina Mogl, Berlin, Germany</td>
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<td>307</td>
<td>Autologous transplantation of bone marrow mononuclear cells in patients with decompensated cirrhosis</td>
<td>Zurab Kakabadze, Tbilisi, Georgia</td>
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<tr>
<td>308</td>
<td>Generation of induced pluripotent stem cells from fetal human hepatocytes in feeder-free conditions</td>
<td>Marc Hansel, Pittsburgh, PA, United States</td>
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<tr>
<td>309</td>
<td>Autologous transplantation of porcine muscle-derived cells into uninjured urethral sphincter enhance urethral closure pressure</td>
<td>Anna Burdzinska, Warsaw, Poland</td>
</tr>
<tr>
<td>310</td>
<td>Whole organ engineering for liver replacement: a regenerative medicine approach</td>
<td>Ken Fukumitsu, Pittsburgh, PA, United States</td>
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</tbody>
</table>
10:30 - 12:30 PARALLEL SESSION 10 (CELL TRACK) COWRIE 2

ISLETS II

Moderators: Lorenzo Piemonti, Italy
Shane Grey, Australia

312 Evaluation of transplanted islet beta-cell proliferative response in an ectopic site during pregnancy
Antonello Pileggi, Miami, FL, United States

313 Improved allogeneic islet graft survival in mice by oxidized Adenosine Tri-Phosphate treatment
Antonello Pileggi, Miami, FL, United States

314 A novel platform for islet transplantation using silk hydrogels
Nicolynn Davis, Palo Alto, CA, United States

315 Isolation of human islets induces islet-intrinsic NF-kappaB which predicts impaired graft function and accelerated rejection
Shane Grey, Darlinghurst, Australia

316 Prevention and rescue of diabetes by all-trans retinoid acid and exendin-4 in NOD mice with and without islet transplantation
Jyuhn-Huarng Juang, Taoyuan, Taiwan

317 Islet size affects engraftment but not functionality in pancreatic islet transplantation
Daria Zorzi, Galveston, TX, United States

318 Baboon as a model for the study of insulin sensitivity, beta cell function and subclinical inflammation following islet transplantation
Franco Folli, San Antonio, TX, United States

319 Simultaneous heart and intramuscolar islet transplantation in type 1 diabetes mellitus and acute heart failure
Federico Bertuzzi, Milan, Italy
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<thead>
<tr>
<th>Session</th>
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<th>Authors</th>
<th>Institutions</th>
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<tr>
<td>10:30 - 12:30</td>
<td>PARALLEL SESSION 11 (XENO TRACK) IMMUNOBIOLOGY AND TOLERANCE</td>
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<tr>
<td></td>
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<td>Moderators: Shounan Yi, Australia</td>
<td>Chung-Gyu Park, Korea</td>
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<tr>
<td>320</td>
<td>Long-term cardiac xenograft (pig to baboon) survival is correlated</td>
<td>Avneesh Singh</td>
<td>Bethesda, MD, United States</td>
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<td>with presence of increased percentage of CD4+CD25HiFoxP3+ T regulatory</td>
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<td>cells</td>
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<td>Shounan Yi</td>
<td>Sydney, Australia</td>
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<td>321</td>
<td>IL-10 is required for the prevention of islet xenograft rejection by</td>
<td>Shounan Yi</td>
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<td>ex vivo-expanded human regulatory T cells in a humanized mouse model</td>
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<td>Hannes Kalscheuer</td>
<td>Heidelberg, Germany</td>
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<td>322</td>
<td>Tolerance, function and homeostasis of human T cells, including</td>
<td>Hannes Kalscheuer</td>
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<td>Tregs, developing in pig thymus xenografts</td>
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<td>Agnes Azimzadeh</td>
<td>Baltimore, MD, United States</td>
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<td>323</td>
<td>Induction B-cell depletion, but not CD28/B7-directed costimulation</td>
<td>Agnes Azimzadeh</td>
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<td>blockade, prevents induced anti-non-Gal antibody responses after</td>
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<td>GaITKO.hCD46 cardiac xenotransplantation</td>
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<td>Mohamed Ezzelarab</td>
<td>Pittsburg, PA, United States</td>
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<td>324</td>
<td>Non-human primate natural and induced regulatory T cells suppress</td>
<td>Mohamed Ezzelarab</td>
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<td>proliferative response to WT pig cells</td>
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<td>Dirk van der Windt</td>
<td>Pittsburg, PA, United States</td>
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<td>325</td>
<td>Allo- and xeno-transplantation of artery patch grafts in infant baboons</td>
<td>Dirk van der Windt</td>
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<td>can T cell tolerance be expected?</td>
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<td>Payal Mital</td>
<td>Lubbock, TX, United States</td>
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<td>326</td>
<td>Hirudin reduces upregulation of CD86 and the human T cell response</td>
<td>Payal Mital</td>
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<td>to thrombin-activated pig endothelial cells</td>
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<td>Jorg D. Seebach</td>
<td>Geneva, Switzerland</td>
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<td>327</td>
<td>Chemoattractant signals and adhesion molecules promoting human</td>
<td>Jorg D. Seebach</td>
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<td>regulatory T-cell recruitment to porcine endothelium</td>
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<td>Payal Mital</td>
<td>Lubbock, TX, United States</td>
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<tr>
<td>328</td>
<td>Role of immune modulation by Sertoli cells for surviving xenotransplantation</td>
<td>Payal Mital</td>
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<td>Jorg D. Seebach</td>
<td>Geneva, Switzerland</td>
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<tr>
<td>329</td>
<td>Fetal injection of human MSCs as a method for xeno-tolerization</td>
<td>James Fisher</td>
<td>Rochester, MN, United States</td>
</tr>
</tbody>
</table>
10:30 - 12:30 PARALLEL SESSION 12 (XENO TRACK) AMERICANA SALON 2

PRECLINICAL MODELS - VASCULAR AND CELLULAR ORGANS

Moderators: Burcin Ekser, Switzerland
Robert Rieben, United States

330 Transplantation of encapsulated porcine hepatocytes improves metabolic function and survival in baboons with acute liver failure
Zurab Machaidze, Boston, MA, United States

331 Xenotransplantation of porcine CTLA4-Ig+/+ neural precursors enables recovery of the locomotor activity in parkinsonian primates
Marta Vadori, Padova, Italy

332 Heart xenotransplantation using genetically-engineered pigs: can CTLA4-Ig replace anti-CD154mAb in the immunosuppressive regimen?
Burcin Ekser, Pittsburgh, PA, United States

333 Nonhuman primates may fail to serve as an adequate model for studying extracorporeal porcine liver perfusion
Joshua Waldman, Toledo, MI, United States

334 Lamellar corneal xenotransplantation using decellularized porcine cornea showed long graft survival in Rhesus macaques
Mee Kum Kim, Seoul, Korea

335 Limitations of the model of porcine islet transplantation in diabetic nonhuman primates affecting long-term survival and graft function
Melanie L. Graham, Minneapolis, MN, United States

336 Consistent survival up to 19 days in a heterotopic thoracic pig-to-baboon cardiac xenotransplantation model
Paolo Brenner, Munich, Germany

337 Gal Kock-out pig islets can modulate the humoral response after the transplantation of macroencapsulated pig islets in diabetic primates
Denis Dufrane, Brussels, Belgium

338 Neuroprotective properties of Marrow-Isolated Adult Multilineage-Inducible (MIAMI) cells in rat hippocampus following global cerebral ischemia are enhanced when complexed to biomimetic microcarriers
Paul Schiller, Miami, FL, United States

339 Rituxan and co stimulation blockade based immunosuppression effectively prevents pig cardiac xenograft rejection in baboon for up to 8 months
Muhammad Mohiuddin, Bethesda, MD, United States
Detailed Program

Tuesday, October 25

12:30 - 13:30  LUNCH (ON OWN)  AMERICANA SALON 4 & FOYER AREA

13:30 - 15:30  STATE-OF-THE-ART 5 (XENO TRACK)  AMERICANA SALON 1
TAKING ISLET XENOTRANSPLANTATION TO THE CLINIC

Moderators: Bernhard J. Hering, United States
          Allan D. Kirk, United States

351 What needs to be achieved in preclinical models to justify a clinical trial
Anna Casu, Palermo, Italy

352 Patient selection for the first clinical trials
Camillo Ricordi, Miami, FL, United States

353 Immunosuppressive protocols in islet xenotransplantation - the balance between efficacy & safety
Allan D. Kirk, Atlanta, GA, United States

354 Islet quality assurance - from the farm to the patient regulatory issues in islet xenotransplantation
Gregory S. Korbutt, Edmonton, AB, Canada

355 Islet xenotransplantation without immunosuppression
Pierre Gianello, Brussels, Belgium

13:30 - 15:30  STATE-OF-THE-ART 6 (XENO TRACK)  COWRIE 2
BARRIERS TO VASCULARIZED XENOTRANSPLANTATION

Moderator: Takaaki Kobayashi, Japan

356 The role of thrombosis in DXR
Karen Dwyer, Fitzroy, Australia

357 Overcoming the cellular immune response to vascularized xenografts
Kazuhiko Yamada, Brookline, MA, United States

358 The pig endothelial response in vascularized xenografts
Simon C. Robson, Boston, MA, United States

359 Special problems associated with liver xenografts
Burcin Ekser, Pittsburgh, PA, United States
13:30 - 14:30  STATE-OF-THE-ART 7 (CELL TRACK)  COWRIE 1
NEW TRENDS IN CELL THERAPY 1
Moderators: Carl Jorns, Sweden
Joshua Hare, United States

360 Cellular therapies for liver disease conditions
Mark Furth, Chapel Hill, NC, United States

361 Cell based therapies in artherosclerosis
David Seo, Miami, FL, United States

13:30 - 14:30  STATE-OF-THE-ART 8 (CELL TRACK)  AMERICANA SALON 2
NEW TRENDS IN CELL THERAPY 2
Moderators: Cherie Stabler, United States
Roberto Gramignoli, United States

362 Radiofrequency energy in stem cell pluripotency and differentiation
Carlo Ventura, Bologna, Italy

363 Novel strategies in wound healing: emerging biomaterials and alternative cell sources
Evangelos V. Badiavas, Miami, FL, United States

364 Regenerative and cell based strategies for neural disease and injury
Damien D. Pearse, Miami, FL, United States

14:30 - 15:30  PRESIDENTIAL ADDRESS  AMERICANA SALON 3
CELL TRANSPLANT SOCIETY
Presidential Address by Stephen Strom, United States

Presentation of the TTS Travel Award for Cell track Best Abstract

Presentation on 1991-2011 Cell Transplant Society 20th Anniversary by Camillo Ricordi, United States

15:30 - 16:00  BUSINESS MEETING  AMERICANA SALON 3
CELL TRANSPLANT SOCIETY

15:30 - 16:00  COFFEE BREAK  AMERICANA SALON 4
EXHIBIT / POSTER VIEWING
PARALLEL SESSION 13 (CELL TRACK)  COWRIE 2

HEMATOPOIETIC, NEURAL CELLS AND TISSUE REPAIR

Moderators: Denis Dufrane, Belgium
Antonello Pileggi, United States

376 Genetic characterization of human autologous adipose mesenchymal stem cells differentiated in 3-dimensional osteogenic graft
Denis Dufrane, Brussels, Belgium

377 Chronic wound healing by a bioengineered graft made of autologous adipose mesenchymal stem cells and allogeneic human acellular collagen matrix
Aurore Lafosse, Brussels, Belgium

378 Prevention of post-transplant proteinuria: possible role of rituximab
Alessia Fornoni, Miami, FL, United States

379 Improvement of bone allograft by mesenchymal stem cells: undifferentiated vs. osteogenic adipose / bone marrow stem cells
Thomas Schubert, Brussels, Belgium

380 Pig as a large animal model for bone tissue engineering development
Thomas Schubert, Brussels, Belgium

381 Surface modified Schwann cells migrate, support corticospinal axon regeneration and promote functional restitution after implantation in an acute SCI model
Mousumi Ghosh, Miami, FL, United States

382 Umbilical cord blood as new source of myeloid derived suppressor cells
Alessia Zoso, Miami, FL, United States

383 Amniotic fluid cell therapy to relieve disc related low back pain and its efficacy comparison with long acting steroid injection
Niranjan Bhattacharya, Calcutta, India
16:00 - 18:00 PARALLEL SESSION 14 (CELL TRACK) AMERICANA SALON 1

IMMUNE TOLERANCE

Moderators: Allison Bayer, United States
Suzanne Ildstad, United States

384 Successful induction of tolerance of both islets and kidneys and cure of diabetes following vascularized islet-kidney transplantation in non-human primates
Vimukthi Pathiraja, Boston, MA, United States

385 Induction of donor specific tolerance in recipients of HLA disparate living donor kidney allografts by donor stem cell infusion
Suzanne Ildstad, Louisville, KY, United States

386 Immunosuppression free long-term islet allograft tolerance achieved by dual blockade of NF-kappaB and JNK/AP-1
Nathan Zammit, Sydney, Australia

387 Immune-privileged Sertoli cells modulate the cellular immune response to survive as allografts
Gurvinder Kaur, Lubbock, TX, United States

388 Targeted Ccl21 promotes neogenesis of a paracortex-like environment and immunoprotection embryonic stem cell allografts from rejection in mice
Alice Tomei, Miami, FL, United States

389 Metabolic demand as an independent variable impacting tolerance induction to islet allografts
Ronald G. Gill, Aurora, CO, United States

390 Distinct allograft tolerance-promoting therapies do not require intrinsic inactivation of antigen-specific CD8+ T cells
Szu-I Wang, Aurora, CO, United States

391 Long term survival of PEGylated murine allogenic islets using short course immunomodulation
Jaime A. Giraldo, Miami, FL, United States
### PARALLEL SESSION 15 (XENO TRACK)
#### COWRIE 1

**COAGULATION AND THROMBOSIS I**

**Moderators:** Paolo Simioni, Italy  
Simon C. Robson, United States  

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<th>No.</th>
<th>Title</th>
<th>Author(s)</th>
<th>Institution</th>
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<tr>
<td>392</td>
<td>Combined GPIb and GPIIb/IIIa blockade prevents sequestration of platelets in a pig-to-human lung perfusion model</td>
<td>Lars Burdorf, Baltimore, MD, United States</td>
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<td>393</td>
<td>Elevated C-reactive protein and IL-6 levels precede consumptive coagulopathy in GTKO pig organ xenograft recipients</td>
<td>Mohamed Ezzelarab, Pittsburgh, PA, United States</td>
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<tr>
<td>394</td>
<td>Integrin dependent baboon platelet activation and phagocytosis by porcine hepatocytes and endothelial cells</td>
<td>Leo Bühler, Geneva, Switzerland</td>
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<tr>
<td>395</td>
<td>Where do platelets go after pig-to-baboon liver xenotransplantation? Evidence for platelet-WBC aggregation</td>
<td>Burcin Ekser, Pittsburgh, PA, United States</td>
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<td>396</td>
<td>Immunosuppressive therapy is associated with upregulation of tissue factor expression on innate immune cells and their aggregation with platelets in xenograft recipients</td>
<td>Mohamed Ezzelarab, Pittsburgh, PA, United States</td>
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<tr>
<td>397</td>
<td>Inhibition of tissue factor prolongs intrahepatic islet xenograft survival in diabetic SCID mouse model</td>
<td>Wei Wang, Changsha, P.R. China</td>
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<tr>
<td>398</td>
<td>Alterations in the coagulation profile of primate recipients of a lifelong supporting renal xenograft from a α1,3-galactosyltransferase gene-knockout (GTKO) pig</td>
<td>Massimo Boldrin, Padua, Italy</td>
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<tr>
<td>399</td>
<td>Functional difference between membrane-bound and soluble human thrombomodulin</td>
<td>Yuko Miwa, Nagoya, Japan</td>
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<td>400</td>
<td>Comparison of thrombin generation in transplanted primates recipients of pig hDaf or hDaf-GalT-KO kidney</td>
<td>Claudia Maria Radu, Padua, Italy</td>
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<tr>
<td>401</td>
<td>Complement and thrombin block endothelial cell accommodation</td>
<td>Kenta Iwasaki, Nagoya, Japan</td>
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16:00 - 18:00  PARALLEL SESSION 16 (XENO TRACK)  AMERICANA SALON 2

ISLET XENOTRANSPPLANTATION

Moderators: Guerard Byrne, United Kingdom
            Gregory S. Korbutt, Canada

402  B cell depletion synergizes with ECDI-fixed rat splenocyte infusions to induce concordant rat to mouse islet xenotransplantation tolerance

Shusen Wang, Chicago, IL, United States

403  Caprine pancreatic islets xenotransplantation into diabetic balb/c mice: a new challenge in diabetic xenotransplantation research

Homayoun Hani, Serdang, Malaysia

404  Long-term cultured neonatal islet cell clusters demonstrates better outcomes for reversal of diabetes in-vivo shown by their molecular profiling

Peta Phillips, Westmead, Australia

405  Complement is not activated at the graft site in non-immunosuppressed immunocompetent mice transplanted with GTKO/hCD46 pig pancreatic tissue

Suzanne Bertera, Pittsburgh, PA, United States

406  Comparison of enzyme efficiency in porcine islet isolation and in vitro maturation from young pigs

Morgan Lamb, Orange, CA, United States

407  Development of chimera recombinant collagenases G and H for the isolation of islets of Langerhans

Giulio Ghersi, Palermo, Italy

408  Long-term survival of neonatal porcine islet xenografts cotransplanted with Sertoli cells and combined treatment with anti-LFA-1 monoclonal antibody

Kevin Bayrack, Edmonton, AB, Canada

409  The effect of costimulation blockade on memory T cell responses in a rat- to mouse islet xenotransplantation model

Randa Diab, Stockholm, Sweden

410  Humoral rejection in xenogeneic IBMIR: plasma causes membrane damage, mitochondrial dysfunction, and cell death in pig pancreatic islets

Dirk van der Windt, Pittsburgh, PA, United States

411  SIRPA interspecies incompatibilities lead to xenogeneic phagocytosis of platelets by liver cells

Leela Paris, Indianapolis, IN, United States
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<td>POSTER SESSION</td>
<td>AMERICANA SALON 4 &amp; FOYER AREA</td>
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<td>BEER AND PRETZELS</td>
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<td>SEE PAGES 49-63</td>
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<td>20:00</td>
<td>CONGRESS DINNER</td>
<td>The Villa by Barton G&lt;br&gt;1116 Ocean Drive, Miami Beach, FL, United States&lt;br&gt;See details in page 13</td>
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08:00 - 10:00  CELL SPECIAL SYMPOSIUM  AMERICANA SALON 3

Moderators: Agnes Azimzadeh, United States
Bernhard J. Hering, United States

500  Issues of importance in islet immunosolation
Collin Weber, Atlanta, GA, United States

501  Novel cell based strategies for immunomodulation and tolerance induction
Luca Inverardi, Miami, FL, United States

502  Purinergic modulation of tissue specific regulatory T cell
Fabio Grassi, Bellinzona, Switzerland

503  IL-6 disruption of tolerance: Changing the balance between TH17 and Treg
Maria Koulmanda, Boston, MA, United States

10:00 - 10:30  COFFEE BREAK  AMERICANA SALON 4

EXHIBIT / POSTER VIEWING
10:30 - 12:00 PARALLEL SESSION 17 (XENO TRACK) AMERICANA SALON 1

COAGULATION AND THROMBOSIS II

Moderators: A. Joseph Tector, United States
Bo Nilsson, United States

504 Activated protein C levels generated by GalT-KO PAEC expressing human endothelial protein C receptor and thrombomodulin in the early stage of interaction with human protein C and thrombin
Cristiana Bulato, Padova, Italy

505 ASGR1 on porcine liver sinusoidal endothelial cells (LSEC) is involved in xenogeneic phagocytosis of human platelets in vitro
Leela Paris, Indianapolis, IN, United States

506 Effect of alpha-Gal epitopes on the interaction between pig TFPI and human FXa on pig vascular endothelium
Cristiana Bulato, Padova, Italy

507 Role of the expression of human endothelial protein C receptor and thrombomodulin on GalT-KO PAEC in PC activation
Claudia Maria Radu, Padua, Italy

508 Circulating microparticles plasma levels in primates recipients of hDAF and GalT-KO pig kidney
Elena Campello, Padua, Italy

509 Absence of thrombotic complication is a major advantage of murine anti CD40 over anti CD154 in heterotopic cardiac xenotransplantation studies
Muhammad Mohiuddin, Bethesda, MD, United States

510 Activated Protein C inhibits platelet activation during xenogeneic GalTKO.hCD39 pig lung perfusion
Elana Rybak, Baltimore, MD, United States

511 Soluble TFPI can interfere with xenogenic activation of the human coagulation system and prevents coagulopathy in xenoperfused kidneys
Wolf Ramackers, Hannover, Germany
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<th>Topic</th>
<th>Presenter</th>
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<td>10:30 - 12:00</td>
<td>PARALLEL SESSION 18 (XENO TRACK)</td>
<td>COWRIE 2</td>
<td>GENETIC ENGINEERING AND PRECLINICAL MODELS</td>
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<td>Moderator: David Ayares, United States Peter Cowan, Australia</td>
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<tr>
<td>512</td>
<td>Protective effects of EPCR overexpression in mouse cardiac xenografts and islet isografts</td>
<td>Peter Cowan, Melbourne, Australia</td>
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<tr>
<td>513</td>
<td>Expression of human thrombomodulin in GTKO/hCD55-hCD59-HTF pigs</td>
<td>Evelyn Salvaris, Fitzroy, Australia</td>
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<tr>
<td>514</td>
<td>Production and characterization of TF knock-down pigs and hTFPI transgenic pigs</td>
<td>Bjoern Petersen, Neustadt, Germany</td>
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<tr>
<td>515</td>
<td>Comparison of proliferative capacity of genetically-engineered pig and human corneal endothelial cells</td>
<td>Minoru Fujita, Pittsburgh, PA, United States</td>
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<tr>
<td>516</td>
<td>Improved cloning efficiency using hCD55/alpha 1,3-Gal knock-out cell clones selected for high hCD55 expression level.</td>
<td>Andrea Perota, Cremona, Italy</td>
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<td>517</td>
<td>High ubiquitous hCD55 and hCD39 co-expression in live transgenic alpha1,3-Gal Knock-out piglet</td>
<td>Andrea Perota, Cremona, Italy</td>
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<td>518</td>
<td>Early graft function of heterotopic cardiac xenografts: Lessons learned from a large animal cardiac xenotransplantation program</td>
<td>Philip Corcoran, Chevy Chase, MD, United States</td>
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<td>519</td>
<td>Combined telemetry and video monitoring offers the most accurate assessment of transplanted xenograft function and recipient baboons health status</td>
<td>Muhammad Mohiuddin, Bethesda, MD, United States</td>
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<td>Time</td>
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<td>10:30 - 12:00</td>
<td>PARALLEL SESSION 19 (CELL TRACK)</td>
<td>AMERICANA SALON 2</td>
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<td>CLINICAL ISLETS</td>
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<td>Moderators: Federico Bertuzzi, Italy</td>
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<td>Rita Bottino, United States</td>
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<td>520</td>
<td>Prolonged islet survival by filgrastim</td>
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<td></td>
<td>Luca Inverardi, Miami, FL, United States</td>
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<td>521</td>
<td>Steatosis and islet graft survival</td>
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<td>Eduardo Moraes Leao Peixoto, Miami, FL, United States</td>
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<td>522</td>
<td>Exenatide and long term islet survival</td>
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<td>Eduardo Moraes Leao Peixoto, Miami, FL, United States</td>
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<td>523</td>
<td>Research design and statistical considerations in cell transplantation research-lessons from islet allograft transplantation</td>
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<td>Shari Messinger, Miami, FL, United States</td>
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<td>524</td>
<td>Successful clinical islet isolations from donor pancreas under fifty years of age</td>
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<td>Gregory Szot, San Francisco, CA, United States</td>
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<td>525</td>
<td>A new approach to contain costs for the establishment of a clinical islet transplant (ITX) program</td>
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<td>Cristina Rastellini, Galveston, TX, United States</td>
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<td>10:30 - 12:00</td>
<td>PARALLEL SESSION 20 (CELL TRACK)</td>
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<td>ENCAPSULATION</td>
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<td>Moderator: Collin Weber, United States</td>
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<td>Christopher Fraker, United States</td>
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<td>526</td>
<td>Development of a new model of islet macroencapsulation - The MAILPAN</td>
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<td>Richard Bouaoun, Strasbourg, France</td>
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<td>527</td>
<td>Conformal coating with PEG-based hydrogels for pancreatic Islet immunoprotection</td>
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<td>Alice Tomei, Miami, FL, United States</td>
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<td>528</td>
<td>Islets xenotransplantation: New Zealand experience</td>
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<td>Olga Garkavenko, Auckland, New Zealand</td>
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<td>529</td>
<td>Fabrication of nano-scale coatings for islet encapsulation</td>
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<td>Cherie Stabler, Miami, FL, United States</td>
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<tr>
<td>530</td>
<td>Optimization of nano-scale emulsions: perfluoro micellar solutions for enhanced oxygen transfer in biomedical applications</td>
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<td>Christopher A. Fraker, Miami, FL, United States</td>
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<td>531</td>
<td>A detailed insulin secretion model for encapsulated islets that incorporates oxygen dependence and spatial distribution information</td>
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<td>Peter Buchwald, Miami, FL, United States</td>
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Detailed Program  Wednesday, October 26

12:00 - 13:00  LUNCH (ON OWN)

13:00 - 14:30  STATE-OF-THE-ART 9 (CELL TRACK)  AMERICANA SALON 1

CELL BANKING TECHNOLOGIES

Moderators: Zurab Kakabadze, Georgia
Carlo Tremolada, Italy

540  Autologous cord blood banking
Giuseppe Mucci, Falciano, San Marino, Italy

541  Cell therapy for cardiovascular disease
Andrew Pecora, Hackensack, NJ, United States

542  Non enzymatic processing of at for clinical use
Carlo Tremolada, Milan, Italy

13:00 - 14:30  STATE-OF-THE-ART 10 (CELL TRACK)  COWRIE 1

CELL PROCESSING FOR TRANSPLANTATION

Moderators: Gregory Szot, United States
Cristiana Rastellini, United States

543  Enzymatic Dissociation of the Human Pancreas: historical lessons leading new initiatives
Jonathan Lakey, Orange, CA, United States

544  Recombinant Enzymes for the Standardization of Cell Processing
Federico Bertuzzi, Milan, Italy

545  Quantitative assessment of islet cell products: improving standard and digital image analysis methods
Peter Buchwald, Miami, FL, United States

13:00 - 14:30  STATE-OF-THE-ART 11 (XENO TRACK)  COWRIE 2

GENETIC ENGINEERING

Moderator: David K.C. Cooper, United States
Emanuele Cozzi, Italy

547  Technical blocks to efficient pig cloning
Randall Prather, Columbia, MO, United States

548  GM pigs for xenotransplantation: an update
Peter Cowan, Melbourne, Australia

549  Moving toward highthroughput capacity for pig transgenesis
Cesare Galli, Cremona, Italy

550  Gene-specific nucleases (ZFNs, TALENs, meganucleases) as a new tools to genetically engineer pigs for xenotransplantation
Ignacio Anegon, Nantes, France
13:00 - 14:30  STATE-OF-THE-ART 12 (XENO TRACK)  AMERICANA SALON 2
INNATE IMMUNITY

 Moderators: Michael Breimer, Sweden
           Megan Sykes, United States

  551 NK cells
      Jorg D. Seebach, Geneva, Switzerland

  552 Receptor ligand incompatibilities and their role in cellular immune response
      Reinhard Schwinzer, Hannover, Germany

  553 Innate immune pathways in IBMIR and strategies for prevention
      Bo Nilsson, Uppsala, Sweden

  554 The antibody responses to xenografts in the era of Gal KO pigs
      Guerard Byrne, London, United Kingdom

14:30 - 15:30  PARALLEL SESSION 21 (XENO TRACK)  AMERICANA SALON 1
ANIMAL MODELS OF XENOTRANSPLANTATION

 Moderators: Gilles Blancho, France
             Kazuhiko Yamada, United States

  555 Gene targeting and cloning in pigs using fetal liver derived cells
      Jose Estrada, Indianapolis, IN, United States

  556 Porcine galactosyl-transferase knock-out transgenic for human CD55, CD59, CD39 kidneys are actually rejected by baboons despite plasma/B cells and complement blockade
      Gilles Blancho, Nantes, France

  557 Preformed non-Gal antibodies are highly cytotoxic even against Galactosyl-transferase knockout, human CD55, CD59, CD39 transgenic pig organs in a model of kidney transplantation into baboons
      Gilles Blancho, Nantes, France

  558 Inter-species compatibility: Does human erythrocyte physiology impair the function of porcine hearts?
      Andreas Bauer, Munich, Germany

  559 Prevention of hyper-acute pulmonary xenograft dysfunction using GalT-KO swine in an ex-vivo lung perfusion model
      Hisashi Sahara, Kagoshima, Japan
14:30 - 15:30 PARALLEL SESSION 22 (XENO TRACK)  
COWRIE 1  
ISLET XENOTRANSPLANTATION - TECHNICAL ASPECTS  

Moderators: Reinhard Schwinzer, Germany  
Susan Safley, United States

560 Quality assessment as a predictor for graft function in the pig-to-nonhuman primate islet transplantation model  
Klearchos K. Papas, Minneapolis, MN, United States

561 Manufacturing porcine islets: culture at 22°C has no advantage of culture at 37°C  
Kate R. Mueller, Minneapolis, MN, United States

562 Comparative analysis of the insulin expression in tilapia pancreatic and extrapancreatic tissues  
Olga Hrytsenko, Halifax, NS, Canada

563 Development and evaluation of a novel porcine C-peptide specific ELISA  
Nathan Provo, Winston-Salem, NC, United States

564 Real-time assessment of encapsulated neonatal porcine islets prior to clinical xenotransplantation  
Jennifer Kitzmann, Tucson, AZ, United States

14:30 - 15:30 PARALLEL SESSION 23 (CELL TRACK)  
COWRIE 2  
CELL & MOLECULAR BIOLOGY  

Moderator: Joanne Chia, Australia

565 Nephrin effect on glucose stimulated insulin release depends on dynamin-mediated nephrin phosphorylation  
Alessia Fornoni, Miami, FL, United States

566 Low molecular weight dextran sulfate prevents human cytomegalovirus entry into porcine cells and is effective against clinical isolates  
Anne-Laure Millard, Zürich, Switzerland

567 Cure of experimental Laron syndrome (LS) by microencapsulated Sertoli cell (SC) xenograft  
Giovanni Luca, Perugia, Italy

568 Decarboxylated osteocalcin improves human islet function and induces beta cells proliferation in-vitro and in-vivo  
Omaima Sabek, Houston, TX, United States
14:30 - 15:30 PARALLEL SESSION 24 (CELL TRACK) AMERICANA SALON 2
STEM CELLS/TRANS Differentiation
Moderators: Ricardo Pastori, United States
Stephen Strom, United States

569 Insulin-secreting thyroid C-cells as surrogate beta cells for Type 1 diabetes
Collin Weber, Atlanta, GA, United States

570 Inflammatory bowel disease: treatment with human MIAMI cells
Gianluca D’Ippolito, Miami, FL, United States

571 Potential of amniotic membrane and its derivatives in tissue regeneration and repair
Ornella Parolini, Brescia, Italy

572 The efficacy of human autologous adipose mesenchymal stem cells isolated with cGMP collagenase to obtain osteogenic-bone like tissue
Denis Dufrane, Brussels, Belgium

15:30 - 16:30 JOINT CLOSING SESSION AMERICANA SALON 3
Cell Track Posters

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**CELL TRACK**

**P002** Human hepatoma cell line conditioned medium promotes migration and increases alpha smooth muscle actin expression in multipotent mesenchymal stromal cells

*Carmen Gonelle-Gispert*, Geneva, Switzerland

**P003** Intracoronary delivery of autologous bone marrow cells in patient with chronic ischemic cardiomyopathy

*Ekaterine Berishvili*, Tbilisi, Georgia

**P004** Autologous stem cell and hyperbaric oxygen therapy in type 2 diabetes Mellitus

*Esteban Estrada*, Formosa, Argentina

**P005** Bone marrow-derived stem cells in human liver diseases

*Mª Trinidad Serrano*, Zaragoza, Spain

**P006** Phenotype plasticity of mesenchymal stem cells from Lipostem™-derived human adipose tissue

*Fanuel Messaggio*, Milan, Italy

**P007** Comparative characterization of human umbilical cord blood and adipose tissue–derived multipotent mesenchymal stem cells

*Kamalaveni Prabakar*, Miami, FL, United States

**P008** Lineage analysis and in vitro differentiation of human mesenchymal stem cells (MSCs) into insulin-producing β cells: A comparison of cord blood- and adipose tissue-derived MSCs

*Kamalaveni Prabakar*, Miami, FL, United States

**P009** Bone marrow-derived Mesenchymal stem cells accelerate tissue repair for hepatic ischemia reperfusion injury

*Hiroyuki Kanazawa*, Shimotsuke, Japan

**P010** Endothelial cells promote pancreatic stem cell activation during islet regeneration

*Jorge Rivas-Camillo*, Guadalajara, Mexico

**P011** Role of progerin accumulation in stem cell self-renewal and differentiation

*Laurin Pacheco*, Miami, FL, United States

**P012** Improving the ischemic reperfusion injury of small intestine with intra-arterially infusion of adipose-derived mesenchymal stem cells

*Naoya Kasahara*, Shimotukeshi, Japan

**P013** MIAMI cells promote neuronal precursor proliferation and increased neurite complexity of human fetal brain-derived neuroepithelial cells

*Paul Schiller*, Miami, FL, United States
P014 Vocal fold lipostructure: preliminary results changing from Coleman to Lipostem technique

Sara Portaleone, Milan, Italy

P015 Expression of surface and intracellular specific markers by human stem cells derived from Lipostem™-treated adipose tissue

Carlo Tremolada, Milan, Italy

P016 An improved method for adipose tissue grafting (Lipostem system) in facial aesthetic and orthognatic surgical procedures

Carlo Tremolada, Milan, Italy

P017 Cell-transplantation therapy of the aggregation-free infusion solution with mesenchymal stem cells

Takumi Teratani, Shimotuke-shi, Japan

P018 Assessment of human adipose tissue derived cell products obtained using a novel non-enzymatic method

Erika Leonardi, Miami, FL, United States

P019 Preliminary assessment of a spiral needle to deliver cell products into tissues

Erika Leonardi, Miami, FL, United States

P020 In vivo grafting of human Hepatic Stem Cells (hHpSCs) in Hyaluronan hydrogels for use in liver failure therapies

Lola Reid, Chapel Hill, NC, United States

P021 Autologous skeletal-myoblast-sheet transplantation improved porcine cardiac function without increasing risk of arrhythmia

Yutaka Terajima, Tokyo, Japan

P022 Cell surface glycosphingolipid antigens of human embryonic stem cells

Angela Barone, Göteborg, Sweden

P023 Galectin expression of human embryonic stem cells and hepatocyte-like cells

Mattias Block, Göteborg, Sweden

P024 A high-throughput procedure for improved microencapsulation of Islets

Rajesh Pareta, Winston-Salem, NC, United States

P025 Human islets encapsulated in alginate sheets survive and function after 8 weeks in the subcutaneous space of rats

Morgan Lamb, Orange, CA, United States

P026 Dynamic response of encapsulated young porcine islets using a perfusion system

Morgan Lamb, Orange, CA, United States
P027 In vitro maturation of viable islets from partially digested pig pancreas
Morgan Lamb, Orange, CA, United States

P029 The survival and engraftment of human Schwann cells within the thoracically contused spinal cord of athymic nude rats
Johana Bastides, Miami, FL, United States

P030 In Vivo study of humoral/cellular immune responses to osteoblastic differentiated Adipose Mesenchymal Stem Cell xenografts: Galactosyl Knock-Out vs. Gal positive pigs
Thomas Schubert, Brussels, Belgium

P032 How to write a functional SOP
Joel Szust, Miami, FL, United States

P033 Regulatory, economic, academic, legal and other impediments to innovation and to the development of novel cell based therapies
Camillo Ricordi, Miami, FL, United States

P034 Cure focus research alliance: inception and progress report
Camillo Ricordi, Miami, FL, United States

P035 Sustained expression of insulin by immune-privileged Sertoli cells
Gurvinder Kaur, Lubbock, TX, United States

P036 Human stem cell recombineering
Melvys Valledor Ceballos, Miami, FL, United States

P037 Cell surface antigen expression of human embryonic stem cells
Michael Breimer, Gothenburg, Sweden

P038 Studying the infiltration kinetics and movement dynamics of macrophages in pancreatic islet grafts in vivo
Midhat H Abdulreda, Miami, FL, United States

P039 Optimization of the in vitro expansion of the human T regulatory cells for the purpose of the clinical co-transplantation
Adam Krzystyniak, Chicago, IL, United States

P040 Long-term treatment of a healthy nonhuman primate with steroid-free immune suppression (SFIS): reversible metabolic effects
Dora Berman-Weinberg, Miami, FL, United States

P041 Down-regulated Txn1 by MPA treatment induces ROS-mediated apoptosis in insulin-producing cell
Ji hye Do, Seoul, Korea

P042 Effects of systemic immunosuppression on islet engraftment and function in syngeneic and allogeneic murine models of intrahepatic islet transplantation
Simona Marzorati, Milan, Italy
P043 Cellular function of RhoGDI-α mediates the distinct cycling of RhoA, Rac1 to regulate pancreatic beta cell death by MPA
Yuri Cho, Seoul, Korea

P044 Polyclonal serum immunoglobulin M (IgM) therapy: Its role in preventing the onset of type 1 diabetes and recurrence of the disease in islet transplantation
Kenneth Brayman, Charlottesville, VA, United States

P045 A summary of 12 autologous-islet transplant isolations at the University of Virginia
Kenneth Brayman, Charlottesville, VA, United States

P046 Modulation of the islet transplant microenvironment via hepatic ischemic preconditioning
R. Damaris Molano, Miami, FL, United States

P047 Assessment of the effect of immunosuppressive drugs on engraftment and function of human islet into immunodeficient mice
R. Damaris Molano, Miami, FL, United States

P048 Vildagliptin administration protects islet cells against hydrogen peroxide induced injury
Ahmet Yesilyurt, Ankara, Turkey

P049 Predictive factors associated with successful nonhuman primate islet isolation
Alexander Rabassa, Miami, FL, United States

P050 Purified tissue dissociating enzyme performance in isolating mouse islets
Andrew Breite, Indianapolis, IN, United States

P051 Two-step implantation device for cellular grafts: kinetics of subcutaneous pre-vascularization in rats
Antonello Pileggi, Miami, FL, United States

P052 Lower β-cell levels of antioxidant enzymes results in β-cell loss
Atsushi Miki, Shimotsuke, Japan

P053 A novel static incubation method for the potency assessment of islets
Christopher Fraker, Miami, FL, United States

P054 Incorporation of rat vascular progenitor cells into mosaic islet clusters to promote engraftment of transplanted pancreatic islets
Claire Jessup, Adelaide, Australia

P055 Expression of microRNAs in islet inflammation
Dagmar Klein, Miami, FL, United States
Cell Track Posters

P056 Impact of coculture with ischemic preconditioned Hep-G2 on insulin secreting function of RIN-5F
*Dong Jin Joo*, Seoul, Korea

P057 Cafeic acid phenethyl ester protects cell viability of pancreatic islet cells against H2O2 induced injury
*Ersin Fadillioglu*, Ankara, Turkey

P058 Comparative study, on enzymatic activity and molecules stability, between collagenases obtained by recombinant DNA technique and by extractive procedures.
*Giulio Ghersi*, Palermo, Italy

P059 The effect of Nrf2 (nuclear factor erythroid2-related factor 1) inducer on islet isolation
*Hirohito Ichii*, Orange, CA, United States

P060 Activation of peroxisome proliferator-activated receptor gamma prolongs islet allograft survival
*Hongjun Wang*, Charleston, SC, United States

P061 A quantitative indicator of functioning islet mass based on MRI imaging of intraportal transplanted islets
*Jae Hyeon Kim*, Seoul, Korea

P062 Improvement of graft survival time by surface modification with 6-armed PEG and immunosuppressive drugs in islet transplantation
*Jee-Heon Jeong*, Seoul, Korea

P064 Bioengineering of functional islet tissues in subcutaneous site
*Kazuo Ohashi*, Tokyo, Japan

P065 Anesthetic preconditioning protects beta-cells from oxygen free radical-induced cell death via p38MAPK
*Kyota Fukazawa*, Miami, FL, United States

P066 Technique of endoscopic biopsy of islets transplanted into the gastric submucosal space in pigs
*Minoru Fujita*, Pittsburgh, PA, United States

P067 Treatment with PKC epsilon agonist improves islet graft function in a syngeneic diabetic mouse transplant model
*Nicolynn Davis*, Palo Alto, CA, United States

P068 The availability of pituitary adenylate cyclase-activating polypeptide (PACAP) in islet transplantation
*Yasunaru Sakuma*, Shimotsuke, Japan

P069 Validation of growth based rapid microbiology method using the BacT/ALERT® 3D system for cellular therapy products
*Aisha Khan*, Miami, FL, United States
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<td>P070</td>
<td>Improved human islet isolation outcomes using a mammalian tissue-free enzyme blend</td>
<td>Aisha Khan, Miami, FL, United States</td>
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<td>P071</td>
<td>Writing an investigational new drug (IND) application in an academia: step by step approach</td>
<td>Aisha Khan, Miami, FL, United States</td>
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<td>P072</td>
<td>Immunological assessment of islet allograft recipients treated with steroid free immune suppression</td>
<td>Dongmei Han, Miami, FL, United States</td>
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<td>P074</td>
<td>Replacement of thermolysin in human islet isolation using Bacillus polymyxa protease (Dispase)</td>
<td>Jonathan Lakey, Orange, CA, United States</td>
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<td>Exercise in a islet-transplanted nonpro marathon-runner: Effects on training, autoimmunity and metabolic profile</td>
<td>Roberto Codello, Milan, Italy</td>
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<td>Impact of donor age on islet isolation for transplantation</td>
<td>Ryosuke Misawa, Chicago, IL, United States</td>
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<td>New strategy of cell transplantation: Hepatocyte transplantation using after hepatectomy organ of hepatocellular carcinoma</td>
<td>Masahiro Ito, Toyoake, Japan</td>
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<td>Hepatocyte transplantation in rats with acute liver failure using cells labeled with a clinical grade MRI contrast agent</td>
<td>Juliana Puppi, London, United Kingdom</td>
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<td>The radical scavenger edaravone counteracts for acute transplant hepatocyte rejection in rat</td>
<td>Masahiro Ito, Toyoake, Japan</td>
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<td>MRI monitoring during liver cell transplantation to the spleen in a porcine model</td>
<td>Nathanael Raschzok, Berlin, Germany</td>
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<td>Engineering of liver tissues containing liver-specific non-parenchymal cells at the ectopic site</td>
<td>Rie Utoh, Tokyo, Japan</td>
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<td>P082</td>
<td>Therapeutic effects of adipose-derived cells on chronic liver injury in mice</td>
<td>Kohei Tatsumi, Shinjuku, Japan</td>
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<td>P083</td>
<td>In vivo propagation and genetic modification of hepatocytes toward gene and cell therapy</td>
<td>Kohei Tatsumi, Shinjuku, Japan</td>
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Waldemar L. Olszewski, Warsaw, Poland

P085  Transplanted hepatocytes are destructed in the process of innate immunity—methods of prevention
Waldemar L. Olszewski, Warsaw, Poland

P086  Searching for keratinocyte spore-stem cells
Waldemar L. Olszewski, Warsaw, Poland

P087  Mitogenic effects of human tissue fluid/lymph containing cytokines on keratinocyte proliferation
Anna Domaszewska-Szostek, Warsaw, Poland

P088  Cold-preservation of freshly isolated human adult hepatocytes for liver cell therapy
Cédric Duret, Montpellier, France

P089  HEPG2C3A and primary human hepatocyte encapsulation for liver implantation
Cédric Duret, Montpellier, France

P092  Improved function and proliferation of INS-1 cells cultured on low-fouling surfaces bearing CDPGYIGSR and RGD peptides, and fibronectin
Carina Kuehn, Sherbrooke, QC, Canada

P093  Porcine pancreatic islets cultured in fibrin show improved resistance towards hydrogen
Carina Kuehn, Sherbrooke, QC, Canada

P094  Particulate oxygen generating substances (POGS) enhance the viability of encapsulated human islets
John McQuilling, Winston-Salem, NC, United States

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Georges Sabra, Sherbrooke, QC, Canada

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Georges Sabra, Sherbrooke, QC, Canada

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Mario Marazzi, Milan, Italy

P098  Preparation and characterization of films using silk fibroin, pectin and glycerin for bioengineered skin
Mario Marazzi, Milan, Italy
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Mario Marazzi, Milan, Italy

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Mario Marazzi, Milan, Italy

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Samuel Stein, Minneapolis, MN, United States

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Daria Zorzi, Galveston, TX, United States

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Jeffrey Datto, Miami, FL, United States

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Peta Phillips, Westmead, Australia

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Joydeep Basu, Winston-Salem, NC, United States

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ATRM

BETALOGICS
(Division of J&J PRD, LLC)

BIOREP TECHNOLOGIES, INC. BOOTH 1
3225 NW 112th Street
Miami, FL 33167
USA
www.biorep.com

Biorep Technologies, Inc. is a full-service, ISO 13485-certified product development company that manufactures and sells medical devises and instrument systems. Biorep is focused on providing innovative equipment for advanced diabetes research with the goal of enhancing the quality and repeatability of islet isolations. Biorep serves healthcare institutions, life science research centers, clinical laboratories, the pharmaceutical industry, and the general public. For more information, please visit www.biorep.com.
BUCHI LABORTECHNIK AG

Meiereggstrasse 40
CH-9230 Flawil 1
Switzerland

www.buchi.com

BUCHI Labortechnik AG is a leading worldwide manufacturer and supplier of laboratory equipment in the chemical, pharmaceutical, and food industry as well as for life sciences.

From ergonomic laboratory equipment to the solution of complex analytical problems in the high-tech sector, BUCHI provides practical assistance in the laboratory. BUCHI supports its customers by its one application center.

All our products comply with our philosophy of "Quality in your hands"!

CARIDIANBCT

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Lakewood, CO  80401
USA

Following the April 2011 Terumo Corporation acquisition, CaridianBCT and Terumo Transfusion became the global leader in blood component technology, delivering unsurpassed value and quality with solutions to increase customer efficiency. Together we remain focused on touching patients’ lives with products and services designed to meet the demand for safer, high-quality blood components.
Exhibitors

CELL TRANSPLANT SOCIETY
(a Section of The Transplantation Society)
International Headquarters
1255 University Street, Suite 605
Montreal, QC H3B 3V9 Canada

Email: info@tts.org Website: www.tts.org/cts

The Cell Transplant Society is an international, non-profit, incorporated, collegial association of scientists with background and/or interest in the field of cellular transplantation.

The Cell Transplant Society exists to promote research and collaboration in cellular transplantation. The research interests of members include pancreatic islets, bone marrow, endothelial, epidermal, myoblast, neural and stem cells.

Investigators of cell and tissue transplantation share problems and research targets on topics such as separation techniques, culture methods, cryopreservation and banking, pretransplant immuno-modulation, micro- and macroencapsulation, bioartificiality, tolerance, xenografts, quality control, implantation sites and techniques, experimental and clinical transplantation and gene therapy.

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www.crescentchemical.com

Crescent Chemical Co., Inc. is the exclusive US distributor for Serva Collagenase which is manufactured by Nordmark, a German pharmaceutical company, the world’s largest manufacturer of collagenases.

Crescent/Serva/Nordmark offer many unique qualities of chromatographically purified collagenases which are specifically suitable for a multitude of applications including isolation of pancreatic islets, hepatocytes, stem cells, cardiomyocytes and other cell types.

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Durham, NC 27713
USA

Cytonet is a biotechnology company with sites in Germany and Durham, NC USA. Cytonet develops cell-based products for liver diseases. Liver cells from non-transplantable livers are recovered, and subsequently transplanted, into children with genetic disorders in approved Phase-II clinical studies. The donated livers are provided by 45+ US-OPO and Tissue Banks.

DIABETES RESEARCH INSTITUTE FOUNDATION (DRIF) BOOTH 3

3440 Hollywood Blvd.
Hollywood, FL 33021
USA

www.diabetesresearch.org

The Diabetes Research Institute Foundation is the organization of choice for those who are serious, passionate and committed to curing diabetes. Its mission is to provide the Diabetes Research Institute (DRI) with the funding necessary to cure diabetes now.

The DRI leads the world in cure-focused research. As the largest and most comprehensive research center dedicated to curing diabetes, the DRI is aggressively working to shrink the timeline toward the discovery of a biological cure. Having already shown that diabetes can be reversed through islet transplantation, the DRI is building upon these promising outcomes by bridging cell-based therapies with emerging technologies. Visit DiabetesResearch.org for more info.
Exhibitors

DOMPÉ

Via Campo di Pile
67100 l’Aquila
Italy
www.dompe.com

Dompé is one of the main Italian biopharmaceutical companies, focused on advanced and innovative solutions for unmet medical needs. It is a fully-fledged company, covering all the stages of the pharmaceutical process, from R&D to production and commercialization. Its products are commercialized in more than 60 Countries worldwide. Its proprietary research and product pipeline is currently focused on the rare diseases. The Group invests more than 10% of revenues in R&D. For further information, please visit www.dompe.com.

INTEGRATED ISLET DISTRIBUTION PROGRAM (IIDP)

1500 E. Duarte Road
Duarte, CA 91010
USA
Http://iidp.coh.org/

The goal of the Integrated Islet Distribution Program (IIDP), funded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the Juvenile Diabetes Research Foundation International (JDRFI), is to work with the leading human islet isolation centers and to distribute high quality human islets to the diabetes research community to advance scientific discoveries and translational medicine.
The IXA’s mission is to promote xenotransplantation as a safe, ethical, and effective therapeutic modality by:

1. fostering the science of xenotransplantation through promotion of ethical clinical and pre-clinical research, productive discourse, and collaboration;

2. educating health care providers and lay persons through broad, representative participation in interactive public debate; and

3. guiding the development of scientifically sound, internationally consistent public policy that is responsive to new developments in the field and acknowledges varying social, ethical and legal frameworks.

Become a member today. Pick up your membership form at the IXA booth in the exhibit hall.

JUVENILE DIABETES RESEARCH FOUNDATION (JDRF)

26 Broadway, 14th Floor
New York, NY 10004
USA

www.jdrf.org

JDRF is the worldwide leader in funding research to cure type 1 diabetes, an autoimmune disease that strikes children and adults. The mission of JDRF is to find a cure for type 1 diabetes and its complications.
Exhibitors

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9345 Discovery Blvd.  
Manassas, VA 20111  
USA  
www.cellgro.com

At Mediatech, Inc. quality is our commitment. Mediatech manufactures and supplies cell culture and molecular biology reagents to academic and government research facilities as well as biotechnology companies. Our diverse product portfolio includes cell culture media, basal salt solutions, antibiotics, sera, specialty media and flexible packaging systems. Additionally, we custom manufacture media and other sterile solutions for a myriad of uses. Mediatech, Inc. is a cGMP facility, compliant to FDA Regulations 21 CFR Part 820, as well as certified ISO 13485:2003.

MERCODIA, INC.  
150 S. Stratford Road  
Suite 515  
Winston-Salem, NC 37104  
USA  
www.mercodia.com

Linking basic research to clinical trials, Mercodia offers highly reproducible ELISA technology for every stage of your research. We specialize in assay development within diabetes, cardiovascular disease and obesity. We also offer in-house laboratory service utilizing our ELISA kits, as well as custom development of assays to fit your needs.
One Lambda will share advancements in transplant diagnostics, discussing the causal relationship of DSA as it pertains to AMR and chronic rejection. Our Luminex® xMap® based LABScreen® Single Antigen technology will be discussed, as will C1qScreen™, a new tool that distinguishes complement binding from non-complement binding DSA.

You are also invited to attend our lunch symposium “Role of Humoral Immunity in Islet Cell Transplantation” on Monday, October 24 in the Americana Salon 3.

Dr. Paul I. Terasaki (Los Angeles) will review evidence that HLA antibodies are associated with failure of organ transplants.

Dr. Matthew Everly (Los Angeles), will discuss the importance of DSA-freedom and the means by which DSA-freedom can be achieved to impact islet cell transplantation outcomes.

Roche offers customized solutions for the Pharmaceutical, Diagnostics and Biotech industry: With experience and strong customer orientation, Roche Custom Biotech supplies tissue-dissociation enzymes, diagnostic reagents, products and services, and instrumentation for fermentation and cell analysis to meet your quality and regulatory needs.

Roche is setting a new standard for tissue-dissociation enzymes with the introduction of our GMP-quality “mammalian tissue-free” Liberase® Enzyme Blends. This new portfolio of highly purified collagenase blends offers stem cell researchers the tools for optimizing their stem cell isolation protocols to maximize cell yields, viability, functionality and safety!

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Exhibitors

THE TRANSPLANTATION SOCIETY

International Headquarters
1255 University Street, Suite 605
Montreal, QC H3B 3V9
Canada

Email: info@tts.org Website: www.tts.org

TTS, established since 1966, serves as the principal International forum for the advancement of both basic and clinical transplantation science throughout the world.

TTS provides the focus for global leadership in transplantation - science and clinical practice, scientific communication, education and guidance on the ethical practice.

Please visit our booth in the exhibition hall to get information on our next congress to be held in Berlin July 15-19, 2012 and to find out more about TTS and its Sections.

VISUALSONICS

3080 Yonge Street
Suite 6100
Toronto, ON M4N 3N1
Canada

www.visualsonics.com

VisualSonics is the undisputed world leader in real-time, in vivo, high-resolution, micro-imaging systems, providing modalities specifically designed for preclinical research. These cutting edge technologies allow researchers at the world’s most prestigious pharmaceutical and biotechnology companies, hospitals and universities to conduct research in gene delivery, molecular imaging and tissue regeneration. These technologies support applications that include genetic research, phenotypic studies and drug development in areas as diverse as cardiovascular, cancer, neurobiology and developmental biology. VisualSonics platforms combine high-resolution, real-time in vivo imaging at reasonable cost with ease-of-use and quantifiable results.
VitaCyte manufactures and sells purified & defined tissue dissociation enzymes for human and non-human cell isolation procedures. VitaCyte's R&D staff works closely with scientists to improve enzyme formulations for specific cell isolation applications. This led to the development of application specific, enzyme formulations for rodent islet (Clzyme\textregistered RI), human hepatocyte (Clzyme\textregistered HH), and human adipose stromal vascular cell (Clzyme\textregistered AS) isolation procedures. These lyophilized products contain purified collagenases & proteases, ready to use after reconstitution. Scientists adopting these products find that lot qualification is unnecessary, reflecting the rigorous approach VitaCyte uses to characterize and dispense purified enzymes.
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24TH INTERNATIONAL CONGRESS OF THE TRANSPLANTATION SOCIETY

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BERLIN, GERMANY

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Role of Humoral Immunity in Islet Cell Transplantation

Chair: Paul I. Terasaki, Ph.D

Monday, October 24, 2011
12:30-13:30 | Lowes Hotel Ballroom: Americana Salon 3

Islet cell transplantation has achieved limited success compared to solid organ transplantation. Despite good donor selection, islet cell preparation, and recipient treatment, insulin independence and islet cell function frequently diminishes within 2 years. Based on new findings, antibody production (both allo- and auto-) are likely the reason for these poor outcomes. The speakers of this educational session will illustrate that HLA antibodies are a major cause of allograft loss in Islet cell transplant and will discuss potential solutions to this problem.

Symposium Presentations

Dr. Paul I. Terasaki (Los Angeles), will review evidence that HLA antibodies are associated with failure of organ transplants.

Dr. Matthew Everly (Los Angeles), will discuss the importance of DSA-freedom and the means by which DSA-freedom can be achieved to impact islet cell transplantation outcomes.
Road Kit for the CURE

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