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UC Davis Cardiovascular Symposium 2018

Systems Approach to Understanding Cardiac
Excitation –Contraction Coupling
& Arrhythmias

Mechanics and Energetics in Cardiac
Arrhythmias and Heart Failure

February 22 & 23

Walter A. Buehler Alumni Center
530 Alumni Lane
UC Davis Campus

Organizing Committee

Donald Bers, Ye Chen-Izu,
Nipavan Chiamvimonvat, Leighton Izu

Advisors: Brian O'Rourke, Elizabeth Murphy,
R. John Solaro, Jil Tardiff,
Eleonora Grandi, Aldrin Gomes

Thursday, February 22

7:30am – Registration - Coffee and light pastries served

7:50am – Opening Remarks –

Lars Berglund, Interim Dean, UC Davis School of Medicine
Associate Vice Chancellor for Biomedical Research

Session I Mechanics and Energetics in Heart Diseases & Arrhythmias

8:00 – 8:25 Experimental studies - **David Kass**
8:25 – 8:50 Modeling studies - **Andrew McCulloch**
8:50 – 9:30 Panel discussion: Critical issues & Controversies – Yoram Rudy
Pieter de Tombe, Dobromir Dobrev, Ele Grandi, Bjorn Knollmann,
Ben Prosser, Godfrey Smith, Andras Varro

9:30 – 9:50 **Coffee Break**

Session II Genetic Mutations Illuminate Mechanics-Energetics Interplay

9:50 – 10:15 Experimental studies – **Jolanda Van der Velden**
10:15 – 10:40 Modeling studies – **Jil Tardiff**
10:40 – 11:20 Panel discussion: Critical issues & Controversies – Henk Granzier
Nip Chiamvimonvat, Ariel Escobar, Sam Harris, John Colyer,
Frederik Flenner, Shelly Tzlil, Farah Sheikh, Seiryu Sugiura
11:25 – 11:40 *Flash Talks - Early Career Investigators:*
Enrique Balderas-Angeles, Arjun Adhikari, Sergio De La Fuente,
Humberto Joca, Melissa Lynn, Lorenzo Sewanan, An Xie

11:45 – 1:15 **Lunch on site**

Session III Mechano-Chemo-Transduction

1:15 – 1:40 Experimental studies - **Ye Chen-Izu**
1:40 – 2:05 Modeling studies - **Leighton Izu**
2:05 – 2:45 Panel discussion: Critical issues & Controversies – Jon Lederer
Anthony Baker, Julie Bossuyt, David Christini, Javier Lopez,
Steve Schwartz, Peter Hunter, Chris Ward

2:45 – 3:05 **Coffee Break**

Session IV Mechano-Electro-Transduction

3:05 – 3:30 Experimental studies – **Peter Kohl**
3:30 – 3:55 Modeling studies – **Natalia Trayanova**
3:55 – 4:40 Panel discussion: Critical issues & Controversies - Penny Boyden
Tamas Banyasz, Alexey Glukhov, Tom Hund, Rocky Kass,
Steve Niederer, Fred Sachs, Fernando Santana

5:00 – 6:30 **Selected Posters & Reception – Lobby**

6:30 – 9:30 **Dinner**

Friday, February 23

7:30am - Coffee and light pastries served

Session V Mitochondria Energetics in Heart Diseases & Arrhythmias

8:00 – 8:25 Experimental studies – **Brian O'Rourke**
8:25 – 8:50 Modeling studies – **Robert Balaban**
8:50 – 9:30 Panel discussion: Critical issues & Controversies – Don Bers
Florin Despa, Anne Knowlton, Madesh Muniswamy, Eric Sobie,
Rai Winslow, Antonio Zaza

9:30 – 9:50 **Coffee Break**

Session VI Mitochondrial Ca²⁺ and ROS Regulation

9:50 – 10:15 Experimental studies – **Elizabeth Murphy**
10:15 – 10:40 Modeling studies – **Christoph Maack**
10:40 – 11:20 Panel Discussion: Critical issues & Controversies – Kevin Foskett
Miguel Aon, Elena Dedkova, Livia Hool, Jennifer Kwong
Satoshi Matsuoka, Charles Steenbergen

11:20 – 12:50 **Lunch on site**

Session VII Feedbacks between Energetics and E-C Coupling

12:50 – 1:15 Experimental studies - **Lothar Blatter**
1:15 – 1:40 Modeling studies - **Sonia Cortassa**
1:40 – 2:20 Panel Discussion: Critical issues & Controversies– John Elrod
Peter Backx, Laszlo Csernoch, Josh Goldhaber, Gyorgy Hajnoczky,
Manuel Navedo, Michael Regnier, Shey-Shing Sheu

2:20 – 2:40 **Coffee Break**

Session-VIII Mechanics-Energetics Feedbacks & Therapeutic Targets

2:40 – 3:05 Experimental Studies - **Rong Tian**
3:05 – 3:30 Modeling Studies - **Dan Beard**
3:30 – 4:10 Panel Discussion: Critical issues & Controversies – John Solaro
Don Bers, Aldrin Gomes, Robbie Gottlieb, Steven Marston,
Corrado Poggesi, Jeremy Rice

4:15pm - Closing Remarks – **Don Bers**