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TUTORIAL – YONG LIAN

Theater

CHALLENGES IN THE DESIGN OF WEARABLE WIRELESS ECG SENSORS

Yong Lian (York University, Canada)

10:30 - 12:00

TUTORIAL – JUN OHTA

Theater

IMAGE SENSORS AND THEIR APPLICATIONS TO IMPLANTABLE BIOMEDICAL DEVICES

Jun Ohta (Nara Institute of Science and Technology, Photonic Device Science Lab, Japan)

13:00 - 14:00

KEYNOTE 1 - MARK PHELPS

Theater

THE NEXT WAVE OF MICROELECTRONICS INTEGRATION: HUMAN BIOLOGY & IMPLANTABLE DEVICES

Mark Phelps (Medtronic, Inc., USA)

14:00 - 15:30

TUTORIAL - NITISH V. THAKOR

Theater

NEUROENGINEERING OF NERVE INTERFACE FOR FUNCTIONAL RESTORATION AND NEUROPROSTHESIS

Nitish V. Thakor (Singapore Institute for Neurotechnology and Johns Hopkins University, Singapore)

15:30 - 17:00

POSTER SESSION - ASSISTIVE, REHABILITATION, AND WEARABLE TECHNOLOGIES

Crystal Room - Poster Area 1

**Session Chairs: Aydin Farajidavar (New York Institute of Technology, USA),
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17:00 - 18:30

ASSISTIVE, REHABILITATION, AND QUALITY OF LIFE TECHNOLOGIES

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Session Chairs: Nitish Thakor (Singapore Institute for Neurotechnology and Johns Hopkins University, Singapore), Sarah Ostadabbas (Northeastern University, USA)

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WELCOME RECEPTION - LIVE INTERACTIVE DEMONSTRATIONS

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Nicole Swann (University of California, San Francisco, United States)

Philip Starr (University of California, San Francisco, United States)

Jose Carmena (University of California, Berkeley, United States)

Timothy Denison (Medtronic, PLC, United States)

FRIDAY, OCTOBER 23RD

8:30 - 10:00

BIOSENSORS AND SYSTEMS

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Drew Hall (University of California, San Diego, USA)

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8:30 - 12:00

PARALLEL WORKSHOP - LESSONS LEARNED ALONG THE TRANSITIONAL HIGHWAY
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10:30 - 12:00

SPECIAL SESSION: SMART OPTOGENETIC BIO-ELECTRONIC INTERFACES

Theater

Session Chairs: Benoit Gosselin (Laval University, Canada), Roman Genov (University of Toronto, Canada)

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THE HUMAN INTRANET

Jan Rabaey (University of California, Berkeley, USA)

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BRAIN MACHINE INTERFACES AND PROCESSING

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Peter Carlen (Toronto Western Hospital, Canada)
Taufik Valiante (Toronto Western Hospital, Canada)
Roman Genov (University of Toronto, Canada)

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Session Chairs: Mohamad Sawan (Technical University Montreal, Canada),
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POSTER SESSION - BIOSIGNAL PROCESSING

Crystal Room - Poster Area 2

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Beena Ahmed (Texas A&M University, Qatar)

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POSTER SESSION - INFORMATION SYSTEMS AND BIOINFORMATICS

Crystal Room - Poster Area 3

Session Chairs: Xingyuan Tong (Xi'an University Post & Telecomm, China), Roozbeh Jafari (Texas A&M University, USA)

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POSTER SESSION - SPECIAL SESSION: EMERGING NON-INVASIVE BRAIN MONITORING
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Session Chairs: Nicoletta Nicolaou (Imperial College London, England), Sameer Sonkusale (Tufts University, USA)

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17:00 - 18:30

LAB-ON-A-CHIP AND INSTRUMENTATION

Theater

**Session Chairs: Wouter Serdijn (Delft University of Technology, Netherlands),
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SATURDAY, OCTOBER 24TH

8:30 - 10:00

BIO-INSPIRED AND NEUROMORPHIC CIRCUITS AND SYSTEMS

Theater

Session Chairs: Roman Genov (University of Toronto, Canada), Aydin Farajidavar (New York Institute of Technology, USA)

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SPECIAL SESSION: INFLAMMATORY RESPONSE TO THE IMPLANTED MEDICAL DEVICES

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Session Chairs: Robert Sobot (University of Western Ontario, Canada), Sameer Sonkusale (Tufts University, USA)

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Tanja Rezzonico Jost (Universita della Svizzera italiana, Switzerland)

Michele Proietti (Universita della Svizzera italiana, Switzerland)

Fabio Grassi (Universita della Svizzera italiana, Switzerland)

Giovanni De Micheli (Ecole Polytechnique Federale de Lausanne, Switzerland)

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Paco Bogonez-Franco (Universite de Lyon 1, France)

Claire Lethias (Universite de Lyon 1, France)

Sabrina Kellouche (Universite de Cergy-Pontoise, France)

Franck Carreiras (Universite de Cergy-Pontoise, France)

Andrea Pinna (Universite Paris 6, France)

Aymeric Histace (Ecole Nationale Superieure de l'Electronique et de ses Applications / Universite de Cergy-Pontoise, France)

Michel Boissiere (Universite de Cergy-Pontoise, France)

Emmanuel Pauthe (Universite de Cergy-Pontoise, France)

Isabelle Lagroye (Universite de Bordeaux, France)

Fabien Soulier (Universite de Montpellier, France)

Serge Bernard (Universite de Montpellier, France)

Stéphane Binczak (Universite de Bourgogne, France)

Bertrand Granado (Universite Paris 6, France)

Patrick Garda (Universite Paris 6, France)

Mehdi Terosiet (Ecole Nationale Superieure de l'Electronique et de ses Applications / University of Cergy-Pontoise, France)

Alexandre Goguin (Universite de Cergy-Pontoise, France)

Olivier Romain (Ecole Nationale Superieure de l'Electronique et de ses Applications / University of Cergy-Pontoise, France)

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Olivier Romain (Ecole Nationale Supérieure de l'Electronique et de ses Applications / University of Cergy-Pontoise, France)

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Alexander El-Warrak (Western University, Canada)

Chad Hodgson (Transonic Scisense, Canada)

Heather Cadieux-Pitre (Western University, Canada)

Tracy Hill (Western University, Canada)

Robert Sobot (Western University, Canada)

13:00 - 14:00

KEYNOTE 2 - ALI KHADEMHOSEINI

Theater

MICROENGINEERED TISSUES FOR REGENERATIVE MEDICINE AND ORGANS-ON-A-CHIP APPLICATIONS

Ali Khademhosseini (Harvard and MIT, USA)

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Drew A. Hall (University of California, San Diego, United States)

15:30 - 17:00

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<i>Jochen Steil (Universitat Bielefeld, Germany)</i>	
<i>Elisabetta Chicca (Universitat Bielefeld, Germany)</i>	

15:30 - 17:00

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<i>Tracy Hookway (Gladstone Institute of Cardiovascular Disease, United States)</i>	
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<i>Todd McDevitt (Gladstone Institute of Cardiovascular Disease, United States)</i>	
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15:30 - 17:00

POSTER SESSION - BIOMEDICAL IMAGINE AND IMAGE PROCESSING

Crystal Room - Poster Area 3

Session Chairs: Christoph Posch (Inserm, France), Negar Tavassolian (Stevens Institute of Technology, USA)

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David Allee (Arizona State University, United States)

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Toshihiko Noda (Nara Institute of Science and Technology, Japan)

Takashi Tokuda (Nara Institute of Science and Technology, Japan)

Hiroyuki Noji (University of Tokyo, Japan)

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Christophe Boss (Nestle Institute of Health Sciences, Lausanne, Switzerland)

Mouna Conrad (Nestle Institute of Health Sciences, Lausanne, Switzerland)

Aurélie Hermant (Nestle Institute of Health Sciences, Lausanne, Switzerland)

Umberto De Marchi (Nestle Institute of Health Sciences, Lausanne, Switzerland)

Andreas Wiederkehr (Nestle Institute of Health Sciences, Lausanne, Switzerland)

Eric Meurville (Ecole Polytechnique Federale de Lausanne, Switzerland)

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