Saturday June 24th, 2017, 08:30

Collaborative Life Sciences Building

Clinical ECG Fundamentals

Room: Rm. 1 - 3A003A

Chair(s): Charles Henrikson, MD MPH (USA) and Zachary D. Goldberger MD MS (USA)

Length (minutes)

15  Peter Jessel, MD  
Oregon Health & Science University, United States of America  
Is my patient in a life-threatening arrhythmia? Differential diagnosis of ventricular and supraventricular arrhythmia on 12-lead ECG

15  Thomas Dewland, MD  
Oregon Health & Science University, United States of America  
Mechanistic diagnosis of atypical atrial flutter from the ECG

15  Samuel Sclarovsky, MD  
Tel Aviv University Sackler Faculty of Medicine, Israel  
ECG in the physiological and pathological hypertrophic remodeling

15  Miquel Fiol, MD PhD  
Hospital Universitario Virgen del Rocio, Spain  
ECG in Emergency patients with chest pain

15  Charles Henrikson, MD MPH  
Oregon Health & Science University, United States of America  
AV block after TAVR: can we predict it and prevent complications?

Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Saturday June 24th, 2017, 08:30

Collaborative Life Sciences Building

Young Investigator Rapid Fire Abstracts

Room: Rm. 2 - 3A003B

Chair(s): Larisa Tereshchenko, MD PhD (USA) and Peter MacFarlane, DSc FRCP (UK)

Length (minutes)  
5 + 3 Q&A  
Daniel Cortez, MD (USA)  
Derived-VCG and cardiac catheterization predictors of atrial arrhythmias in patients with the Fontan palliation

5 + 3 Q&A  
Bryce Alexander, BSc (Canada)  
Coronary artery disease and interatrial block: implications for new-onset atrial fibrillation

5 + 3 Q&A  
Erica Clarke Whalen, MBBS (Canada)  
Gender equity imbalance in electrophysiology: A call to action

5 + 3 Q&A  
Muammar Kabir, PhD presented by Erick Andres Perez Alday, PhD (USA)  
Optimal configuration of adhesive ECG patches for long term vectorcardiogram monitoring

5 + 3 Q&A  
Akitoshi Chikamoto, undergraduate student (Japan)  
The characterization of autonomic nervous function in Senescence Accelerated Mouse-Prone 8 (SAMP8)

5 + 3 Q&A  
Erick Andres Perez Alday, PhD (USA)  
New method to digitize electrocardiograms printed in multiple formats

5 + 3 Q&A  
Charlotte Stephansen, MD-PhD student (Denmark)  
Interventricular delay in cardiac resynchronization therapy: Inter observer agreement when aiming for the narrowest paced QRS complex

5 + 3 Q&A  
Harley Stevenson-Cocks, BSc (United Kingdom)  
A novel model of rat ventricular electrophysiology reveals mechanisms of spontaneous Ca2+ release in heart failure

5 + 3 Q&A  
Jaume Coll-Font, PhD (USA)  
Tracking the heart movement with the ECG; Correcting the respiration movement of the heart in a porcine model

5 + 3 Q&A  
Mehak Idrees, MD (USA)  
Sex-Specific differences in QRS characteristics of LBBB in heart failure patients undergoing cardiac resynchronization therapy
Saturday June 24th, 2017, 10:30

Collaborative Life Sciences Building

Sudden cardiac death and ECG screening in athletes

Room: Rm. 1 - 3A003A

Chair(s): Jordan Prutkin, MD MHS (USA) and Chuck Swerdlow, MD (USA)

Length (minutes)

15  Eric Stecker, MD MPH  
Oregon Health & Science University, United States of America  
Epidemiology of sudden cardiac death in community and in athletes

15  Jordan Prutkin, MD MHS  
University of Washington, United States of America  
International criteria for electrocardiographic interpretation in athletes

15  Ronn Tanel, MD  
University of San Francisco California, United States of America  
Asymptomatic WPW in young athletes

15  Seshadri Balaji, MD  
Oregon Health & Science University, United States of America  
Risk stratification for sudden death in children and adolescents with HCM. What do we know? What do we need to know?

15  Chuck Swerdlow, MD  
University of California Los Angeles, United States of America  
ICD in athletes: how to achieve the best clinical outcomes and avoid complications

15  Panel Discussion  
All questions saved for panel discussion for all speakers to address as a group
Saturday June 24th, 2017, 10:30

Collaborative Life Sciences Building

Young Investigator Rapid Fire Abstracts

Room: Rm. 2 - 3A003B

Chair(s): Larisa Tereshchenko, MD PhD (USA) and Peter MacFarlane, DSc FRCP (UK)

Length (minutes)

5 + 3 Q&A  **Aron Bender, MD** (USA)
Ventricular pre-excitation on ECG is independently associated with incident atrial fibrillation in a prospective community cohort study

5 + 3 Q&A  **Shulun Zang, MD** (USA)
Temporal dispersion of repolarization are associated with defibrillator therapies for ventricular arrhythmias

5 + 3 Q&A  **Audrey Uy-Evanado, MD** (USA)
Aggressive blood glycemic control among diabetics and risk of sudden cardiac death

5 + 3 Q&A  **Noelle Garster** (presented by Charles Henrikson, MD MPH (USA))
Bedside identification of patients at risk for PVC-induced cardiomyopathy: Is ECG useful?

5 + 3 Q&A  **Carmen Rusinaru, MD PhD** (USA)
A novel non-Invasive sex- specific risk marker for sudden cardiac death with preserved ejection fraction

5 + 3 Q&A  **Rolf Oberholzer** (presented by Roger Abächerli, PhD (Switzerland))
Reconstruction of the ECG from the VCG is posture dependent

5 + 3 Q&A  **Chetan Lokhande, MD** (USA)
“Ideally” placed left ventricular leads for CRT yield different paced EKG findings in patients with left bundle branch block: Anatomical vs electrical optimization

5 + 3 Q&A  **Chetan Lokhande, MD** (USA)
How Effectively does application of strict (“Strauss”) criteria for LBBB diagnosis exclude patients with increased LV mass?

5 + 3 Q&A  **Petros Arsenos, MD PhD** (Greece)
Programmed ventricular stimulation predicts sudden cardiac death in heart failure patients with preserved ejection fraction

5 + 3 Q&A  **Petros Arsenos, MD PhD** (Greece)
Increased prevalence of late potentials on signal-averaged electrocardiogram in psychiatric patients
**Collaborative Life Sciences Building**

**Debate:** I shall only consider CRT for HF patients with Classic LBBB

**Room:** Rm. 1 - 3A003A

**Referee:** Chuck Swerdlow, MD (USA)

**Length (minutes)**

45

**Wojciech Zareba, MD PhD (pro)**
University of Rochester, United States of America

vs.

**Niraj Varma MD PhD (con)**
Cleveland Clinic, United States of America
Saturday June 24th, 2017, 13:00

Collaborative Life Sciences Building

Clinical ECG Cases Review

Room: Rm. 2 - 3A003B

Chair(s): Zachary Goldberger, MD MS (USA)

Panel: Charles Henrikson MD MPH (USA), Eric Stecker MD MPH (USA), Chuck Swerdlow, MD (USA), Jordan Prutkin, Seshadri Balaji MD (USA), Samuel Sclarovsky, MD (Israel)

Length (minutes)

7 + 3 Q&A*  
**Tuan Mai, MD** (USA)  
Macreorentrant Atrial Flutter Circuits Involving Native and Donor Atria after Bilateral Lung Transplant

7 + 3 Q&A*  
**Angela Krebsbach PA-C, MS** (USA)  
Inappropriate Ventricular Pacing in an Newly Transplanted Heart with Normal AV Conduction

7 + 3 Q&A*  
**Sanoj Chacko** (Canada)  
CRT-AutoCapture Induced Ventricular Arrhythmia

7 + 3 Q&A*  
**Sanoj Chacko** (Canada)  
Wenckebach Periods of Alternate Beats: An Unusual Phenomenon

5  
**Buffer time**

*subject to panel discretion
Saturday June 24th, 2017, 14:00

Collaborative Life Sciences Building

ECG monitoring and big data

Room: Rm. 1 - 3A003A

Chair(s): Iwona Cygankiewicz, MD PhD (Poland) and Jonathan Steinberg, MD (USA)

Length (minutes)
15 Iwona Cygankiewicz, MD PhD
Medical University of Łódź, Poland
Clinical indications for AECG monitoring - ISHNE/HRS consensus

15 Suave Lobodzinski, PhD
University of California Los Angeles, United States of America

15 Emanuela Teresa Locati, MD PhD
Milano, Italy
Long-term ECG monitoring in unexplained syncope and palpitations: SYNARR-Flash study and beyond

15 Jonathan Steinberg, MD
Summit Medical Group, United States of America
The battle for long-term ECG monitoring supremacy: smartphone ECG versus implantable loop recorder

15 Ken Stein, MD
Boston Scientific, United States of America
Promises and pitfalls of big data

Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Saturday June 24th, 2017, 14:00

Collaborative Life Sciences Building

How to record ECG

Room: Rm. 2 - 3A003B

Chair(s): Barbara Drew, RN PhD (USA), and Paul Kligfield, MD (USA)

Length (minutes)

15   Paul Kligfield, MD
     Weill Cornell Medical College, United States of America
     Errors in ECG acquisition: precordial electrode placement and lead wire switches

15   Roger Abächerli, PhD
     SCHILLER AG, Baar, & Cardiovascular Research Institute Basel, Switzerland
     The estimated ECG angles derived by VCG significantly differ when electrode
     positions and body build are included into the vector calculation model

15   Nora Goldschlager, MD
     University of California San Francisco, United States of America
     Artifacts that affect interpretation of the ECG

15   Barbara Drew, RN PhD
     University of California San Francisco, United States of America
     Causes of false alarms with in-patient monitoring

15   Peter MacFarlane, DSc FRCP
     University of Glasgow, United Kingdom
     Assessment of Bandwidth for Pediatric ECGs

15   Panel Discussion
     All questions saved for panel discussion for all speakers to address as a group
Saturday June 24th, 2017, 15:45

Collaborative Life Sciences Building

Welcome Remarks and ISHNE Keynote

Room: Combined

Length (minutes)
15

Welcome Remarks
Larisa Tereshchenko, MD PhD
Oregon Health & Science University, United States of America
Sanjiv Kaul, MD
Oregon Health & Science University, United States of America
Wojciech Zareba, MD PhD
University of Rochester, United States of America
Jonathan Steinberg
Summit Medical Group, United States of America

55

ISHNE Keynote
Niraj Varma MD PhD
Cleveland Clinic, United States of America
Remote monitoring of Cardiac Implantable Electronic Devices: from Curiosity to Class 1 Recommendation
Saturday June 24th, 2017, 17:00

Collaborative Life Sciences Building

Mechanisms, ECG manifestation, and risk stratification

Room: Rm. 1 - 3A003A

Chair(s): Lin Yee Chen, MD MS (USA), and Mark Niebauer, MD PhD (USA), Przemyslaw Guzik, MD PhD (Poland)

Length (minutes)
15  Ignatius G Zarraga, MD  
Oregon Health & Science University, United States of America  
Just how helpful is the ECG in the congenital long QT syndrome?
15  Takanori Ikeda, MD  
University of Tokyo, Japan  
Risk stratification using noninvasive techniques in Brugada syndrome
15  Mark Niebauer, MD PhD  
Cleveland Clinic, United States of America  
QRS frequency analysis in bundle branch block: clinical outcomes and CRT response
15  Marek Malik, MD  
Imperial College London, United Kingdom  
QRS microfractionations in ICD recipients
8  Erick Andres Perez Alday, PhD  
Oregon Health & Science University, United States of America  
Anisotropy of ventricular conduction is more prominent during ventricular tachycardia, as compared to sinus rhythm
8  Wilson Good, BSc, PhD Student  
University of Utah, United States of America  
Detecting Ischemic Stress Using Laplacian Eigenmaps
14  Panel Discussion  
All questions saved for panel discussion for all speakers to address as a group
**Saturday June 24th, 2017, 17:00**

**Collaborative Life Sciences Building**

**How to teach clinical ECG**

Room: Rm. 2 - 3A003B

Chair(s): Adrian Baranchuk, MD (Canada) and Victor Froelicher, MD (USA)

<table>
<thead>
<tr>
<th>Length (minutes)</th>
<th>Speaker(s)</th>
<th>Institution</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Adrian Baranchuk, MD</td>
<td>Queen’s University, Canada</td>
<td>How and what to teach EP Fellows about Electrocardiology</td>
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<tr>
<td>45</td>
<td>Joshua Landy, MD</td>
<td>Co-Founder Figure 1, Canada</td>
<td>Online ECG Education: The experience of Figure 1</td>
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<tr>
<td>15</td>
<td>Zachary Goldberger, MD MS</td>
<td>University of Washington, United States of America</td>
<td>Roundtable discussion</td>
</tr>
<tr>
<td>15</td>
<td>Antonio Bayés de Luna, MD</td>
<td>Hospital Quirónsalud Barcelona, Spain</td>
<td>Roundtable discussion</td>
</tr>
</tbody>
</table>

6. 30 pm Reception at CLSB for all
Sunday June 25th, 2017, 08:30

Collaborative Life Sciences Building

Interatrial Block and Bayés’ Syndrome: New paradigm in the prediction of AF, Stroke and Cognitive Impairment?

Room: Rm. 1 - 3A003A

Chair(s): Antonio Bayés de Luna, MD (Spain) and Adrian Baranchuk, MD (Canada)

Length (minutes)

15  
Antonio Bayés de Luna, MD  
Hospital Quirónsalud Barcelona, Spain  
Interatrial block: from the surface ECG to the Cardiac Magnetic Resonance

15  
Pyotr Platonov, MD  
Lund University, Sweden  
A comprehensive anatomical review of the Bachmann bundle and adjacent structures

15  
Larisa Tereshchenko, MD PhD  
Oregon Health & Science University, United States of America  
Interatrial block and Deep Terminal Negativity of P-wave in V1: Friend or foe?

15  
Lin Yee Chen, MD MS  
University of Minnesota, United States of America  
P wave indices and their predictive ability for stroke in AF

15  
Adrian Baranchuk, MD  
Queen’s University, Canada  
Interatrial block and atrial fibrillation- the Bayés Syndrome: Are we ready for “prime time?”

15  
Panel Discussion  
All questions saved for panel discussion for all speakers to address as a group
Sunday June 25th, 2017, 08:30

Collaborative Life Sciences Building

How to code ECG

Room: Rm. 2 - 3A003B

Chair(s): JP Couderc, PhD MBA (USA) and Roger Abächerli, PhD (Switzerland)

Length (minutes)
15 Kjell Nikus, MD PhD
Tampere University Hospital, Finland
Challenges with the definition of the Q wave, the J point and the T wave
15 Marek Malik, MD
Imperial College London, United Kingdom
T-peak: what does it mean and how to identify it?
15 JP Couderc, PhD MBA
University of Rochester, United States of America
Improving Reproducibility, Increasing Standards of ECG analyses, and sharing the data: THEW ECG Warehouse experience
15 Fabio Badilini, PhD
AMPS-LLC, United States of America
New techniques for long-preserving storage and analysis of digital ECGs
15 Roger Abächerli, PhD
SCHILLER AG, Baar, & Cardiovascular Research Institute Basel, Switzerland
ECG measurement changes due to the first-order high-pass filter

Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Sunday June 25th, 2017, 10:15

Collaborative Life Sciences Building

Pierre Rijlant Lecture

Room: Combined

Length (minutes) 60

**Victor Froelicher, MD**
Stanford University, United States of America
Perspectives on the Future of Electrocardiography
Sunday June 25th, 2017, 11:15

Collaborative Life Sciences Building

ISHNE general assembly

Room: Combined

Length (minutes)  30  
Jonathan Steinberg, MD  
Summit Medical Group, United States of America
Sunday June 25th, 2017, 13:00

Collaborative Life Sciences Building

Debate: Early repolarization pattern – is it over hyped?

Referee: Victor Froelicher, MD (USA)

Room: Rm. 1 - 3A003A

Length (minutes) 45

Peter MacFarlane, DSc FRCP (pro)
University of Glasgow, United Kingdom

Vs.

Sami Viskin, MD (con)
Tel-Aviv Medical Center, Israel
Sunday June 25th, 2017, 13:00

Collaborative Life Sciences Building

Clinical ECG cases review panel

Room: Rm. 2 - 3A003B

Chair(s): Kjell Nikus

Panel: Takanori Ikeda, MD (Japan), Andrés Ricardo Pérez-Riera, MD PhD (Brazil), Pyotr Platonov, MD (Sweden), Yochai Birnbaum, MD (USA)

Length (minutes)
7 + 3 Q&A* Carlos Alberto Pastore, MD PhD (Brazil)
Brugada pattern with and without right bundle-branch block: how can VCG differentiate them

7 + 3 Q&A* Michał Kalowski, MD (Poland)
ECG paper with traces of soot – Abnormalities in the recording of the victim of carbon monoxide poisoning

7 + 3 Q&A* Michał Kalowski, MD (Poland)
Misdiagnosis of pacemaker dysfunction due to impaired intraatrial conduction caused by severe fibrosis of atria in patient with scleromyositis

7 + 3 Q&A* Paulina Przyżycka (presented by Michał Kalowski, MD (Poland))
Third time lucky – Don’t let the patient die for the fourth time

5 Buffer time

*subject to panel discretion
Sunday June 25th, 2017, 13:50

Collaborative Life Sciences Building

From genetics to genomics of ECG phenotypes to cardiac modeling

Room: Rm. 1 - 3A003A

Chair(s): Larisa Tereshchenko, MD PhD (USA) and Sami Viskin, MD (Israel)

Length (minutes)
20 Nona Sotoodehnia, MD MPH
University of Washington, United States of America
Genomics of Cardiac Electrical Activity

20 Sami Viskin, MD
Tel-Aviv Medical Center, Israel
Proarrhythmic Effects of Cardiac Memory

20 Remi Dubois, PhD
ESPCI, France
Ventricular fibrillation: what we can learn from noninvasive mapping

20 Hector Barajas-Martinez, PhD
Masonic Medical Research Laboratory, United States of America
Genetics in Sudden Cardiac Death Syndromes

10 Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
**Sunday June 25th, 2017, 13:50**

**Collaborative Life Sciences Building**

**Young Investigators Competition Finalists**

Room: Rm. 2 - 3A003B

Chair(s): Peter MacFarlane, DSc FRCP (UK), Rob MacLeod, PhD (USA), Jonathan Steinberg, MD (USA), Wojciech Zareba, MD PhD (USA)

Length (minutes)

10 + 5 Q&A Farhad Pashakhanloo, PhD (USA) Influence of myofiber architecture on the anisotropic wave propagation and electrogram waveforms using image based computer models of human atria

10 + 5 Q&A Golriz Sedaghat, BSc, Masters Student (USA) Continuous activation through the entire cardiac cycle discriminates reentrant vs. focal ventricular tachycardia on surface ECG

10 + 5 Q&A Erick Andres Perez Alday, PhD (USA) Novel non-invasive algorithm to identify atria reentry and ectopic foci origins from a multi system array. A computational study

10 + 5 Q&A Jason Thomas, BSc (USA) Global electrical heterogeneity in young athletes

10 + 5 Q&A Kensuke Sakata, MD (Japan) Not all non-paroxysmal atrial fibrillation drivers are included in complex fractionated electrogram area or low voltage area: ExTRa mapping project

10 + 5 Q&A Joseph Allencherril, MD (USA) Q waves in V1-V3 do not represent strict basal anteroseptal infarcts: late gadolinium enhancement cardiovascular magnetic resonance imaging correlations
Sunday June 25th, 2017, 15:35

Collaborative Life Sciences Building

Innovative technologies in electrophysiology of the 21st century

Room: Rm. 1 - 3A003A

Chair(s): Sami Viskin, MD (Israel) and Larisa Tereshchenko, MD PhD (USA)

Length (minutes)
20 + 5 Q&A

Charles Swerdlow, MD
University of California Los Angeles, United States of America
Innovations in Clinical Electrophysiology

20 + 5 Q&A

Leslie Tung, PhD
Johns Hopkins, United States of America
Electrophysiology of Engineered Cardiac Tissues Using Human Induced Pluripotent Stem Cells
Sunday June 25th, 2017, 15:35

Collaborative Life Sciences Building

In memoriam Mike Laks and Galen Wagner Lectures

Chairs: Peter MacFarlane, DSc FRCP (UK), Wojciech Zareba, MD PhD (USA)

Room: Rm. 2 - 3A003B

Length (minutes)
20 + 5 Q&A  Suave Lobodzinski, PhD
University of California Los Angeles, United States of America
History of a God’s signal discoveries

20 + 5 Q&A  Yochai Birnbaum, MD
Baylor College of Medicine, United States of America
Prediction of right atrial volume index by electrocardiography: ECG-echocardiography correlations in patients with pulmonary hypertension
Sunday June 25th, 2017, 16:35

Collaborative Life Sciences Building

Ventricular conduction abnormalities and left ventricular dyssynchrony

Room: Rm. 1 - 3A003A

Chair(s): Van Oosterom, PhD (Netherlands) and Sami Viskin, MD (Israel)

Length (minutes)

15 Ljuba Bacharova, MD, DSc, MBA
International Laser Centre, Slovakia
Intraventricular conduction abnormalities - a link between arrhythmias and QRS complex patterns

15 Van Oosterom, PhD
Radboud University Nijmegen, The Netherlands
How simulation of RBBB and LBBB is implemented in ECGSIM

15 Laura Bear, PhD
The Electrophysiology and Heart Modeling Institute (LIRYC), France
Detection of Electrical Dyssynchrony by Electrocardiographic Imaging

15 Junaid Zaman, MD PhD presented by (Chuck Swerdlow, MD, UCLA)
Imperial College London, United Kingdom and Stanford University, USA
Electrical Characteristics of Defibrillation Lead Dislodgement to the Atrium

15 Al Benson BSc, PhD
University of Leeds, United Kingdom
hERG Channel Activators and Vulnerability to Re-entrant Arrhythmias: A Computational Study of the Roles of Potassium and Sodium Currents

15 Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Sunday June 25th, 2017, 16:35

Collaborative Life Sciences Building

ECG imaging of arrhythmias and ischemia

Room: Rm. 2 - 3A003B

Chair(s): Rob MacLeod, PhD (USA) and Dana Brooks, PhD (USA)

Length (minutes)
15 Dana Brooks, PhD
Northeastern University, United States of America
Technical challenges to wider clinical adoption of ECGI

15 Michał Kania, PhD
The Electrophysiology and Heart Modeling Institute (LIRYC), France
Evaluation of a new method for three-dimensional prediction of the exit site of ventricular tachycardia

15 Peter van Dam, PhD
Peacs BC, Netherlands
The path of the mean spatio-temporal activation isochrone derived from the 12 Lead-ECG to localize the PVC origin

15 Milan Tyšler, PhD
Slovak Academy of Sciences, Slovakia
Evaluation of using reduced number of mapping leads for noninvasive localization of ectopic ventricular activity

15 Brett Burton, BSc, PhD student
University of Utah, United States of America
The effect of subject-specific ischemic zone geometries on body surface potentials

15 Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Monday June 26th, 2017, 08:30

Portland Art Museum

Autonomic nervous system and arrhythmogenesis

Room: Rm. 1 - Kridel Grand Ballroom

Chair(s): Leslie Tung, PhD (USA) and Peng-Sheng Chen, MD (USA)

Length (minutes)
15 Beth Habecker, PhD
Oregon Health & Science University, United States of America
Cardiac Autonomic Nervous System fundamentals

15 Peng-Sheng Chen, MD
University of Indiana, United States of America
Recording of skin sympathetic nerve activity on ECG

15 Marek Malik, MD
Imperial College London, United Kingdom
Heart rate variability - what does it mean and what we measure?

15 Georg Schmidt, MD
Technische Universität München, Germany
Baroreflex sensitivity assessment using heart rate turbulence

15 Larisa Tereshchenko, MD PhD
Oregon Health & Science University, United States of America
Can ECG assess sympathetic nerves density in the ventricles?

15 Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Monday June 26th, 2017, 08:30

Portland Art Museum

Acute ischemia, myocardial injury, and an old scar

Room: Rm. 2 - Fields Sunken Ballroom

Chair(s): Samuel Sclarovsky, MD (Israel) and Miquel Fiol, MD (Spain)

Length (minutes)
15  Miquel Fiol, MD
    Hospital Universitario Virgen del Rocío, Spain
    Where is the culprit artery in patients with ACS
15  Petros Arsenos, MD PhD
    Hippokration Hospital, Greece
    Primary prevention of sudden cardiac death in post-myocardial infarction Patients with preserved ejection fraction: PRESERVE-EF Study
15  Cees A. Swenne, PhD
    Leiden University Medical Center, The Netherlands
    Subtraction electrocardiography to improve myocardial ischemia detection
15  Rob Macleod, PhD
    University of Utah, United States of America
    Myocardial ischemia and its ECG Signature: 100 years of Forgery?
15  Ian Azarov, MD
    Institute of Physiology/Komi Science Center, Russia
    Activation Delay in midmyocardium under experimental coronary occlusion in pigs is associated with j-wave development on body surface ECG
15  Panel Discussion
    All questions saved for panel discussion for all speakers to address as a group
Monday June 26th, 2017, 11:00

Portland Art Museum

Mark Josephson lecture

Room: Rm. 1 - Kridel Grand Ballroom

Length (minutes) 55

Kalyanam Shivkumar, MD
University of California Los Angeles, United States of America
Autonomic nervous system and ventricular arrhythmias: mechanisms and therapeutic opportunities
Monday June 26th, 2017, 11:55

Portland Art Museum

ISE General Assembly

Room: Rm. 1 - Kridel Grand Ballroom

Length (minutes)
30

Wojciech Zareba, MD PhD
University of Rochester, United States of America
Monday June 26th, 2017, 13:30

Portland Art Museum

Debate: ECG should be used for SCD risk stratification

Room: Rm. 1 - Kridel Grand Ballroom

Referee(s): Peng-Sheng Chen, MD (USA)

Length (minutes) 45

Larisa Tereshchenko, MD PhD (pro)
Oregon Health & Science University, United States of America
It is all about the electrical signature of the arrhythmia

Vs.

Jeffrey Goldberger, MD MBA (con)
University of Miami, United States of America
Imaging is paramount. We don’t need an ECG
Monday June 26th, 2017, 13:30

Portland Art Museum

Clinical ECG cases review: roundtable discussion

Room: Rm. 2 - Fields Sunken Ballroom

Chair(s): Adrian Baranchuk, MD (Canada)

Panel: Antonio Bayés de Luna, MD (Spain), Victor Froelicher, MD (USA), Carlos Pastore

Length (minutes)

7 + 3 Q&A*  
**Nelson Samesima, MD PhD** (Brazil)  
Brugada syndrome ablation: What the Vectorcardiogram can tell us?

7 + 3 Q&A*  
**Brooks Walsh, MD** (USA)  
Giant R Waves in Hyperacute Myocardial Infarction: Hyperkalemia Mimic?

7 + 3 Q&A*  
**Brooks Walsh MD** (USA)  
Hyperventilation-Provoked STE and TWI in a Young Afro-Caribbean Adult Woman

7 + 3 Q&A*  
**Brooks Walsh MD** (USA)  
Subacute Occlusion of the Proximal RCA Producing Anterior Q waves and T Wave Inversion

5  
**Buffer time**

*subject to panel discretion
Monday June 26th, 2017, 14:25

Portland Art Museum

Atrial Fibrillation Symposium

Room: Rm. 1 - Kridel Grand Ballroom

Chair(s): Wojciech Zareba, MD PhD (USA), Jeffrey Goldberger, MD MBA (USA)

Length (minutes)

20  **Jeffrey Goldberger, MD MBA**  
University of Miami, United States of America  
Atrial Myopathy Underlying Atrial Fibrillation: Arrhythmogenic and Thrombogenic Substrate

20  **Maria Guillem, PhD**  
Universitat Politècnica de València, Spain  
Noninvasive estimation of hierarchical activation patterns during atrial fibrillation by Electrocardiographic Imaging

20  **Takanori Ikeda, MD**  
Toho University, Japan  
Antithrombotic treatment for prevention of stroke due to atrial fibrillation: Real-world evidence

20  **Wojciech Zareba, MD PhD**  
University of Rochester, United States of America  
Effect of Ranolazine on Atrial and Ventricular Arrhythmias

10  **Panel Discussion**  
All questions saved for panel discussion for all speakers to address as a group
Monday June 26th, 2017, 14:25

Portland Art Museum

Traditional and Novel ECG analyses

Room: Rm. 2 - Fields Sunken Ballroom

Chair(s): Merritt Raitt, Rob Macleod, PhD (USA)

Length (minutes)
15  Merritt Raitt, MD
    Oregon Health & Science University, United States of America
    Differential diagnosis of supraventricular arrhythmias on 12-lead ECG
15  Heemun Kwok, MD MS
    University of Washington, United States of America
    Method for Rhythm Classification during CPR
15  Marcio Sturmer, MD
    University of Montreal, Canada
    New Criteria Using Initial Activation in V1 and V2 for the Differential Diagnosis of
    Wide Complex Tachycardia
15  Michael A Colman, PhD
    University of Leeds, United Kingdom
    Multi-scale Computational Modeling of Spontaneous Calcium Release Events in
    the Human Atria
15  Takashi Ashihara, MD PhD
    Shiga University of Medical Science, Japan
    ExTRa Mapping-Guided Non-Passively Activated Area Ablation is very Effective for
    Patients with Non-Paroxysmal Atrial Fibrillation
8   Jess Tate, PhD student
    University of Utah, United States of America
    A Sampling Strategy for Reducing Error in ECG Forward Simulation
7   Panel Discussion
    All questions saved for panel discussion for all speakers to address as a group
Tuesday June 27th, 2017, 08:30

Portland Art Museum

Cardiomyopathies

Room: Rm. 1 - Kridel Grand Ballroom

Chair(s): Zachary Goldberger, MD MS (USA), Mark Haigney, MD (USA)

Length (minutes)
15

Mark Haigney, MD
Uniformed Services University, United States of America
Opioid-induced Sudden Death: Diagnostic and prognostic value of ECG and ECG monitoring

15
Frank I. Marcus, MD
University of Arizona, United States of America
Arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C): ECG diagnostic and prognostic criteria

15
John Madias, MD
Mount Sinai Medical Center, United States of America
Can ECG help to diagnose Takotsubo (stress) cardiomyopathy?

15
Antoni Ribeiro, MD PhD
Federal University of Minas Gerais Belo Horizonte, Brazil
ECG in Chagas disease: diagnostic and prognostic criteria

15
Petros Arsenos, MD PhD
Hippokration Hospital, Greece
Primary prevention of sudden cardiac death in hypertrophic cardiomyopathy: prospective cohort study

15
Panel Discussion
All questions saved for panel discussion for all speakers to address as a group
Tuesday June 27th, 2017, 08:30

Portland Art Museum

Many faces of cardiac repolarization

Room: Rm. 2 - Fields Sunken Ballroom

Chair(s): Christine Tompkins, MD (USA), Rob MacLeod, PhD (USA)

Length (minutes)

15  Christine Tompkins, MD
    University of Colorado Denver, United States of America
    Gender differences in ventricular repolarization properties: going beyond the QT interval

15  Petros Arsenos, MD PhD
    Hippokration Hospital, Greece
    Non-invasive risk stratification of sudden cardiac death in heart failure: comparison of QT interval, T-wave alternans, and deceleration capacity

15  Ramun Schmid (presented by Roger Abächerli, PhD)
    SCHILLER AG, Baar, Switzerland
    ST segment correction formula for AC-coupled Electrocardiogram

15  Ksenia Sedova, PhD
    Czech Technical University in Prague, Czech Republic
    Repolarization Parameters for Predicting Ventricular Tachyarrhythmias in Ischemia/Reperfusion Model

15  Michele Pelter, PhD
    University of San Francisco, United States of America
    Evaluation of algorithms designed to detect transient myocardial ischemia in patients with acute coronary syndrome

15  Panel Discussion
    All questions saved for panel discussion for all speakers to address as a group
Tuesday June 27th, 2017, 10:30

Portland Art Museum

Ion channels and channelopathies

Room: Rm. 1 - Kridel Grand Ballroom

Chair(s): Leslie Tung, PhD (USA), Peter Ruben, PhD (Canada)

Length (minutes)
15  Zachary Goldberger, MD MS
    University of Washington, United States of America
    Channelopathy surfing in 2017: Considerations for the clinician
15  Wojciech Zareba, MD PhD
    University of Rochester, United States of America
    Long QT syndrome: diagnosis, prognosis, and treatment
15  Peter Ruben, PhD
    Simon Fraser University, Canada
    Arrhythmogenic triggers in a LQT3/Brugada mixed syndrome sodium channel
    mutant, E1784K
15  Peter Larsson, PhD
    University of Miami, United States of America
    Modified polyunsaturated fatty acids a Long QT Syndrome therapeutics
15  Hector Barajas-Martinez
    Masonic Medical Research Laboratory, United States of America
    Molecular genomics update in short QT syndrome
15  Panel Discussion
    All questions saved for panel discussion for all speakers to address as a group
Tuesday June 27th, 2017, 10:30

Portland Art Museum

Atrial Fibrillation mechanisms and ECG monitoring

Room: Rm. 2 - Fields Sunken Ballroom

Chair(s): Dawood Darbar, MBChB, MD (USA), Marmar Vaseghi, MD (USA)

Length (minutes)
20  Jonathan Steinberg, MD
     Summit Medical Group, United States of America
     Duration of detected AF and outcomes: does it matter?
20  Larisa Tereshchenko, MD PhD
     Oregon Health & Science University, United States of America
     Network meta-analysis of anti-embolic interventions
20  Dawood Darbar, MBChB, MD
     University of Illinois College of Medicine, United States of America
     Genomics of atrial fibrillation
20  Marmar Vaseghi, MD
     University of California Los Angeles, United States of America
     Cardiac autonomic control and its modulation for prevention and treatment of atrial fibrillation
10  Panel Discussion
     All questions saved for panel discussion for all speakers to address as a group
Tuesday June 27th, 2017, 12:00

Portland Art Museum

Closing remarks and awards ceremony

Room: Rm. 1 - Kridel Grand Ballroom

Length (minutes)
30

Jonathan Steinberg, MD
Summit Medical Group, United States of America

Wojciech Zareba, MD PhD
University of Rochester, United States of America

Rob Macleod, PhD
University of Utah, United States of America