ISCE ‘13

Dolce Hayes Mansion, San Jose California
Wednesday, April 17 - Sunday, April 21, 2013

Kjell Nikus, M.D.  Paul Kligfield, M.D.
Tampere University Hospital  Weill Cornell Medical College
Conference Chair  Conference Co-chair

PROGRAM

The International Society for Computerized Electrocardiology
1530-1830 Pre-conference Tutorial

*Engineering aspects of automated rhythm analysis during 12-lead electrocardiography*

**Organizers:** Paul Kligfield, Weill Cornell Medical College, New York NY USA
Eric Helfenbein, Philips Medical Systems, Andover MA USA

Paul Kligfield, Weill Cornell Medical College, New York NY USA
*Overview*

Robert M. Farrell, GE Healthcare, Wauwatosa WI USA
*Basic engineering issues for rhythm detection*

Richard Gregg, Philips Medical Systems, Andover MA USA
*Sensitivity-specificity tradeoff for arrhythmia detection*

Johan de Bie, Mortara Instrument, Milwaukee WI USA
*Detection of atrial flutter and tachycardia in a 10-second 12-lead ECG*

Shen Luo, Mindray Biomedical, Mahwah NJ USA
*Evaluation of rhythm and pacemaker performance for 12-lead electrocardiographs*
**THURSDAY, 18 APRIL 2013**

**0800-0815 Welcome & Opening Remarks**  
Kjell Nikus, Tampere University Hospital, Tampere FINLAND

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**0815-1020 Session I: Papers from submitted abstracts**  
Chair: Paul Kligfield, Weill Cornell Medical College, New York NY USA  
Co-chair: Kjell Nikus, Tampere University Hospital, Tampere FINLAND

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<thead>
<tr>
<th>Time</th>
<th>Speaker/Institution</th>
<th>Title</th>
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<tbody>
<tr>
<td>0815</td>
<td>Paul Kligfield, Weill Cornell Medical College, New York NY USA</td>
<td>Overview</td>
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<tr>
<td>0820</td>
<td>Jørgen Kanters, University of Copenhagen, Copenhagen DENMARK</td>
<td>T-wave morphology combination score, heart rate and the QT interval as risk predictors for all-cause-mortality in the general population</td>
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<tr>
<td>0835</td>
<td>Reza Firoozabadi, Philips Healthcare, Thousand Oaks CA USA</td>
<td>Predicting defibrillation success in sudden cardiac arrest patients</td>
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<td>0905</td>
<td>Phyllis Stein, Washington University School of Medicine, St. Louis MO USA</td>
<td>24-hour Holter-derived VPC counts and incident outcomes in older adults: The cardiovascular health study</td>
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<tr>
<td>1005</td>
<td>Jean-Philippe Couderc, University of Rochester Medical Center, Rochester NY USA</td>
<td>Combination of T-wave alternans and QT variability predicts ICD discharge in MADIT II patients</td>
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**1020-1050 Break**

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**1050-1225 Session II: J wave syndromes and sudden cardiac death. From cell to bedside**  
Chair: Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA  
Co-chair: Peter Macfarlane, University of Glasgow, Glasgow Scotland UK

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<tr>
<td>1050</td>
<td>Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA</td>
<td>Overview</td>
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<tr>
<td>1055</td>
<td>Peter Macfarlane, University of Glasgow, Glasgow Scotland UK</td>
<td>ECG distinctions, prevalence and nomenclature</td>
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<td>1110</td>
<td>Peter Macfarlane, University of Glasgow, Glasgow Scotland UK</td>
<td>Genetics, cellular and ionic mechanisms and approach to therapy</td>
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<td>1125</td>
<td>Charles Antzelevitch, Masonic Medical Research Laboratory, Utica NY USA</td>
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1700-1800  Poster Session 1

PRESENTERS:

Salah Al-Zaiti, University at Buffalo, Buffalo NY USA
Predicting mortality using heterogeneity of ventricular repolarization: A meta-analysis. Findings from a global population of 362,816 patients

Deodato Assanelli, University of Brescia, Brescia ITALY
T-wave axis deviation and left ventricular hypertrophy interaction in the MOLI SANI project

Ljuba Bacharova, International Laser Center, Bratislava SLOVAK REPUBLIC
The effect of periinfarction block on the QRS complex and ST segment patterns: A model study

Said Yama Fakhri, University Hospital, Copenhagen DENMARK
Novel electrocardiographic pre-hospital salvage score outperforms reperfusion delay for prediction of left ventricular function in patients with ST elevation myocardial infarction

Arzhang Fallahi, Beth Israel Medical Center, New York NY USA
EKG and angiographic correlation in patients with acute anteroseptal versus extensive anterior STEMI

Konstantin Kamyshev, Russian New University, Taganrog RUSSIA
Fundamental research on the mechanism of cardiovascular system hemodynamics self-regulation. Determination of the norm-pathology boundary for the basic hemodynamic parameters and analysis of the compensation mechanism as a method of revealing the underlying causes of the disease

Michele M Pelter, University of Nevada, Reno Nevada USA
Transient myocardial ischemia among Non-STEMI and unstable angina patients treated with invasive versus conservative treatment

David Pickham, University of California, San Francisco CA USA
Development of ECG abnormalities in the first year after heart transplantation

Dimitrios Poulakakos, St. George's University of London, London UK
T wave morphology descriptors during haemodialysis

Autumn Schumacher, Georgia Regents University, Augusta GA USA
Defibrillation threshold testing does not cause acute electrocardiographic changes in cardiomyopathy patients undergoing insertion of an implantable cardioverter defibrillator

Jose Vicente, US Food and Drug Administration, Silver Spring MD USA
Gender differences in the evolution of spatial QRS-T angle and ventricular gradient with age

Sofieke Wijers, University Med. Center Utrecht, Utrecht THE NETHERLANDS

Proposing a new ECG parameter for risk stratification in repolarization dependent ventricular arrhythmias: STV

1900-2145 SESSION III: Telecardiology

Chair: Roger Abächerli, Schiller AG, Baar, SWITZERLAND
Co-chair: Peter Clemmensen, Rigshospitalet, Copenhagen DENMARK

1900-1905 Roger Abächerli, Schiller AG, Baar, SWITZERLAND
Overview

1905-1920 Lemuel Cunha, Federal University, Belo Horizonte BRAZIL
Main features of a Brazilian large scale telecardiology network

1920-1935 Discussion

1935-1950 Richard Gregg, Philips Healthcare, Andover MA USA
Comparing ST-segment elevation myocardial infarction criteria for left bundle branch block

1950-2005 Discussion

2005-2015 Break

2015-2030 Salah Al-Zaiti, University at Buffalo, Buffalo NY USA
Novel technical solutions for ECG transmission: Clinical perspectives

2030-2145 Discussion

2045-2100 Peter Clemmensen, Rigshospitalet, Copenhagen DENMARK
Prehospital diagnosis and transfers of patients with acute coronary syndrome

2100-2115 Discussion

2130-2230 Poster Session 1 – Continuing Discussions

FRIDAY, 19 APRIL 2013

0830-1130 Session IV: ECG databases/Sudden cardiac death

Chair: Larisa Tereschchenko, Johns Hopkins University, Baltimore MD USA
Co-chair: Konrad Brockmeier, University of Köln, Köln GERMANY

0830-0835 Larisa Tereschchenko, Johns Hopkins University, Baltimore MD USA
Overview

0835-0850 Raimond Winslow, Johns Hopkins University, Baltimore MD USA
A web-based tool for managing and analyzing ECG data

0850-0905 Discussion

0905-0925 Larisa Tereschchenko, Johns Hopkins University Baltimore MD USA
ECG as a screening tool in the general population

0925-0940 Discussion
0940-0955 Adriaan van Oosterom, Radboud University, Nijmegen THE NETHERLANDS

*Repolarization features as detectable from electrocardiograms and electrograms*

0955-1005 Discussion

1005-1030 Break

1030-1045 Joseph E. Marine, Johns Hopkins University, Baltimore MD USA

*ECG features suggesting a potentially life-threatening arrhythmia as the cause for syncope*

1045-1100 Discussion

1100-1115 Mathias Baumert, University of Adelaide, Adelaide AUSTRALIA

*Symbolic analysis of coupling between heart rate, blood pressure and respiration*

1115-1130 Discussion

1700-1800 Poster Session 2

**PRESENTERS:**

Roger Abächerli, SCHILLER AG, Baar SWITZERLAND

*Is it possible to reduce the false positive diagnostic statements in young athlete ECG screening?*

Deodato Assanelli, University of Brescia, Brescia ITALY

*T-wave axis deviation and left ventricular hypertrophy interaction in diabetes and hypertension (MOLI SANI project)*

Han Chengzong, Philips Healthcare, Andover MA USA

*Comparison of QT heart rate correction methods during drug-induced QT prolongation in rabbit*

Simon Chien, Philips Healthcare, Andover MA USA

*A software algorithm for detection of biventricular pacemaker pulses in the surface ECG*

Dirk Feild, Philips Healthcare, Thousand Oaks CA USA

*Evaluation of a real-time automated algorithm for ST measurement*

Patricia Harris, University of California, San Francisco CA USA

*Heart rate turbulence in patients with respiratory failure*

Vincent Jacquemet, Hôpital du Sacré-Coeur de Montréal, Montreal CANADA

*Consistency of QTc measurements in atrial flutter patients before and after catheter ablation*

David Pickham, University of California, San Francisco CA USA

*Association between endomyocardial tissue biopsies and right ventricular conduction delays*

Mads Riemann, University of Copenhagen, Copenhagen DENMARK

*Absence of potassium channel interacting protein 2 delays conduction in the mouse ECG*

Massimo Rivolta, Università degli Studi di Milano, Milan ITALY

*Quantification of ventricular repolarization heterogeneity during sotalol*
administration using the V-index

John J Wang, Philips Healthcare, Andover MA USA

On transformations for estimating body-surface potential maps from the standard 12-lead electrocardiogram

Sofieke Wijers, University Medical Center Utrecht, Utrecht, THE NETHERLANDS

Acute, short, and long term ‘reverse’ electrical remodeling after biventricular pacing in patients with cardiac resynchronization therapy

1900-1950

Kenichi Harumi Plenary Address

WOJciech ZAREBA
University of Rochester, Rochester NY USA
ECG parameters and cardiac resynchronization therapy

2000-2205 Session V: Jos Willems Young Investigators Competition
Chair: Mary G. Carey, University of Rochester Medical Center, Rochester NY
Co-chair: Shen Luo, MindRay Biomedical, Mahwah NJ USA

2000-2005 Mary G. Carey, University of Rochester Medical Center, Rochester NY USA

Overview

2005-2020 Mikkel Schoos, Rigshospitalet, Copenhagen DENMARK
A novel pre-hospital electrocardiogram score predicts myocardial salvage in patients with ST segment elevation myocardial infarction, evaluated by cardiac magnetic resonance

2020-2035 Discussion

2035-2050 Michael Daly, Royal Victoria Hospital, Belfast Northern Ireland UK
Epicardial potentials derived from the body surface potential map using inverse electrocardiography improve diagnosis of acute myocardial infarction: A prospective study

2050-2105 Discussion

2105-2120 Lars Johannesen, US Food and Drug Administration, Silver Spring MD USA
Going beyond QT: Integrated electrocardiographic and vectorcardiographic analysis of 20 QTc-prolonging drugs

2120-2135 Discussion

2135–2150 Peter van Dam, University of Nijmegen, Nijmegen THE NETHERLANDS
Quantitative spatial cardiac localization of PVCs and pacemakers using the 12 lead ECG

2150–2205 Discussion
SATURDAY, 20 APRIL 2013

0830-1205  Session VI: T-wave variability
Chair: Marek Malik, St. George's University of London, London UK
Co-chair: Robert Lux, University of Utah, Salt Lake City UT USA

0830-0835 Marek Malik, St. George's University of London, London UK
Overview
0835-0850 Richard Verrier, Harvard Medical School, Boston MA USA
Electrophysiology of T-wave alternans: Cellular mechanism and insights
derived from large animal models
0850-0905 Discussion
0905-0920 Marek Malik, St. George's University of London, London UK
QT interval and T wave variability during provocative test
0920-0935 Discussion
0935-0950 Joel Xue, GE Healthcare, Wauwatosa WI USA
T wave variation detection, an industrial perspective of research and
development
0950-1005 Discussion
1005-1030  BREAK
1030-1045 Derek Exner, University of Calgary, Calgary CANADA
Clinical application of T-wave alternans
1045-1100 Discussion
1100-1115 Georg Schmidt, Technische Universität, München GERMANY
Low frequency oscillations of T-wave vector predict mortality in post-infarction
patients
1115-1130 Discussion
1130-1145 David G. Strauss, U.S. Food and Drug Administration, Silver Spring
MD USA
Going beyond QT interval in the assessment of electrocardiographic drug effects
1145-1200 Discussion

1615-1630 Yochai Birnbaum, Baylor College of Medicine, Houston TX USA
High risk ECG patterns in ACS – need for guideline revision
1630-1645 Discussion

1650-1900 Session VII: Patient monitoring alarm fatigue: Potential device-based solutions
Chair: Barbara J. Drew, UCSF, San Francisco CA USA
Co-chair: John Wang, Philips Healthcare, Andover MA USA
1650-1655 Barbara J. Drew, UCSF, San Francisco CA USA
Overview
1655-1710 Alex Chen, Mortara Instrument, Milwaukee WI USA
Reduction of false alarms in the detection of lethal arrhythmias in patient monitoring
1710-1725 Discussion
1725-1740 Xiao Hu, UCLA, Los Angeles CA USA
Integrated utilization of monitor alarms to detect patients at risk for sudden cardiac arrest in hospital
1740-1755 Discussion

1755-1800 Break
1800-1815 Mikko Kaski, GE Healthcare, Helsinki FINLAND
Reduction of false and irrelevant ECG alarms in monitoring
1815-1830 Discussion
1830-1845 John Wang, Philips Healthcare, Andover MA USA
Alarms for real-time ECG/arrhythmia monitoring: Review of potential device solutions
1845-1900 Discussion

1915 Banquet
Poster Awards
JWYI Awards
President’s Remarks
Conference Chair’s Remarks

SUNDAY, 21 April 2013

0730-0900 Closing breakfast