# ICE-2019-PRELIMINARY PROGRAM

**Plenary Lecture**
**The detection and relevance of AF- Harold Kennedy**

- ECG University (announce HRS+ISE+ISHNE paper)

- ISE Young Community: Chair: Goksel Cinier (Turkey)

- ISHNE abstracts.

-Rijlant Lecture

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**Industry Sponsored Sessions**

Sponsored Session **Medtronic**                **AF and Implantable Devices**
Detect AF- and reduce with algorithms          YongMei Cha (Mayo)
Prophylaxis of CIED pocket infection           Johnston, Samuel L <samuel-johnston@uiowa.edu>
ILR and Reduce Stroke                          Passman, Rod. <Rod.Passman@nm.org>

Sponsored Session- Abbott                      CRT fails in a third of my patients- accept or
                   intervene?
The paced QRS- does it predict NRs?            Marek Jasztrzebski
MPP to improve LV activation                   Haran Burri
Dynamic Pacing to Improve CRT Response         Brian Wisnoskey
Atrial fibrillation and CRT                    Jonathan Steinberg

Sponsored Session- Biotronik                   **Developments in Remote Monitoring**

Telerehabilation                               Ewa Piotrowicz
Will the smartphone become the standard relay for data from implantable cardiac devices?
                                                                Suneet Mittal
Are CIED patients better off remotely monitored than seeing their Drs regularly in clinic?
                                                                Niraj Varma

Sponsored Session- Boston Scientific
The SQ ICD                                     Valentina Kutyfa
QRS morphology and duration- or the left atrium- to predict CRT effect

Pyotr Platanov

Cryoablation for AF- is this the new standard?        Ante Anic

Remote Monitoring and Automated machine learning improves survival in HF patients
Niraj Varma

Antithrombotic Therapy for Prevention of Stroke Due to AF: Real-World Evidence of Low Doses
**Takanori Ikeda**

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### Session Proposals

1. **What's new in electrocardiology in 2019 and how does this affect ECG diagnosis? – New guidelines, new literature**

   Surface ECG- Antonio Bayes de Luna/
   Ambulatory ECG monitoring- Iwona Cygankiewicz
   Implantable devices- Bulent Gorenek
   Ablation procedures- Goksel Cinier

2. **Standardization of Ambulatory Monitoring: What Should we Do?**

   How many leads/ and how long for                Lobodinski
   Artefacts and mis diagnoses; do interpolated leads work? Javier Garcia Niebla
   What can we learn apart from heart rate and its regularity Richard Verrier
   Non prescribed wearables- consumer or patient?  JP Couderc

3. **The Discovery of AV conduction abnormalities- what should management be?**

   Prolonged PR interval   Emanuela Locati
   RBBB               Andres Ricardo Perez-Riera
   LBBB               Marcelo Elizari
   Post- TAVR          Paul Malik

4. **ECG diagnostic dilemmas**

   Artifacts in AECG monitoring      Miguel Fiol
   RsR' in V1 lead               Antonio Bayes de Luna
   Brugada phenocopy             Adrian Baranchuk
   Drug-induced ECG changes       Tom Ribeiro

### 5. The His bundle and its Arborizations

Chairs: Andrés Ricardo Pérez-Riera and Ryszard Piotrowicz
His bundle pacing    Jon Steinberg
Trifascicular or tetrafascicular nature of the left bundle branch - anatomy and LV depolarization
Andres Perez-Riera
The left septal fascicle – clinical implications   Ryszard Piotrowicz
SVTs using the proximal HPS            Sam Johnston


### 6. ECG changes and arrhythmias in Non Ischemic cardiomyopathies

Takotsubo cardiomyopathy- Peter Stone/ Mark Haigney/Takanori
ECG changes and arrhythmias in hypothermia – Piotr Kukla (Poland)
Philippides cardiomyopathy (athletes) Iwona Cygankiewicz
Lamin AC- Krzysztof Kaczmarek


### 7. Tachycardiomyopathy

AF                              Kjell Nikus
PACs and PVCs- origin and burden          Andres Enriquez
RV pacing                       Carlos Pastore
Do tachycardia induced CM differ to other NICM?        Philippe Chevalier


### 8. QRS as a Key Selection Criterion for CRT

QRS duration or morphology:  what really matters for CRT selection?      J Sahadevan
Which definition of LBBB should I apply?                       L Bacharova
Should QRS Duration be Recalibrated to Body Size in Selecting Patients for CRT?: Niraj Varma
Do we need Machine Learning to select the right patient for CRT?        Mina Chung


### 9. Optimization of Cardiac Resynchronization Therapy by
- The 12-lead surface Electrocardiogram     Mark Potse
- The Echocardiographic evaluation        Malgorzata Sobieszczanska
- Holter                       W Zareba
- The automatic algorithms provided by the devices  Yochai Birnbaum

## 10. Brugada Syndrome

ECG diagnosis- and differential diagnosis   Gary Tse
Risk Stratification Using Non-Invasive ECG Techniques in Brugada Syndrome Konstantino Letsas
Brugada phenocopy   Adrian Baranchuk
An ion channel disease or anatomical pathology?          Sam Johnston

## 11. Repolarization and QT syndrome

How do you measure it? supine/ standing and exercise  Pieter Postema
Long QT                                                Wojtek Zareba
Short QT                                               Ihor Gussak
Early repolarization                                   Peter MacFarlane

## 12  New Insights into AF Mechanisms

Can P Wave Wavelet Analysis Predict Atrial Fibrillation          V Vassilikos <vvas63@otenet.gr>
Epicardial contact Mapping                              JJayakumar Sahadevan
                                                        <jxs47@case.edu>
Epicardial non-contact mapping                          Cakulev

Sam Johnston: Priobiotics, Antibiotics, and the Incidence of Atrial Fibrillation

## 13  Diagnosis and management of Ventricular Tachycardia

ECG markers and methods of monitoring  Andres Enriquez
New systems of body surface mapping: the role of CardioInsight
Role of MRI                            R Macleod
Noninvasive ablation with radiotherapy     Mina Chung

## 14  Heart rate control

Prognostic role of heart rate in cardiovascular diseases – Iwona Cygankiewicz

Inappropriate sinus tachycardia- Pawel Ptaszynski ( Poland)

Heart rate control in AFB patients- Pyotr Platonov/ Ali Oto/ Thomas Klingenhaben

Optimal programming of heart rate settings in patients with implantable devices-

Brian Olshansky


## 15  Diagnosis and Management of Unexplained Syncope

How to choose the best ECG monitoring strategy?  Nelson Samesina
What ECG markers are available for identifying cardiogenic syncope?   Sam Johnston
Syncope in athletes: what is the best diagnostic pathway?  Drezner
Autonomic disorders and syncope  Brian Olshanksy  <brian-olshansky@uiowa.edu>


## 16  ECG Predictors of Cardiovascular Outcomes: New Insights
### Chair Lin Yee Chen

Prediction of Sudden Cardiac Death using an Electrical Risk Score
   Sumeet Chugh (Sumeet.Chugh@cshs.org)
P Wave Indices: Improving Stroke Prediction in Atrial Fibrillation
   Lin Yee Chen (chenx484@umn.edu)

Advanced Interatrial Block as a Risk Factor for Atrial Fibrillation and Stroke
   Antoni Bayes de Luna (abayes@santpau.cat)

Supraventricular Ectopy: Is it a Risk Factor or Risk Marker for Stroke?
Elsayed Soliman (esoliman@wakehealth.edu)


## 17  Sudden cardiac death prevention
1. Sudden cardiac death- changing epidemiology and "patients at risk" profile – Iwona CYgankiewicz
2. Beyond implantable devices- is there a place for pharmacotherapy and life style changes in SCD prevention- (recreational sport, diet) Harold Kennedy? Ali Oto, Ryszard piotrowicz
3. ICD implantation in borderline patients ( LVEF 30-35%)-and Recovered LVEF at the time of reimplantation Thomas Kligenheben
4. ICD alternatives- subcutaneous ICD, Life Vest- Jerzy Krzysztof Wranicz


## 18  Risk prediction for Sudden Cardiac Death in
- Non-ischemic cardiomyopathy patients   George Kozzman
- Post-infarction patients with preserved ejection fraction   W Zareba
- Patients with a recent (< 45 days) myocardial infarction   Jose Manuel Rubio
  Patients with Brugada Syndrome   Konstantitno Letsas

## 19  Sleep Disordered Breathing and Atrial Fibrillation: Mechanistic and Clinical Insights

Chairs- Reena Mehra, Cleveland Clinic; Thomas Klingenheben

1. Sleep Apnea and Atrial Fibrillation-Omics (Genomics and Proteomics): Finding Common Ground *Reena Mehra*
2. Clarifying the Role of the Autonomic Nervous System in Sleep Apnea and Atrial Arrhythmogenesis      Olshansky, Brian <brian-olshansky@uiowa.edu>
3. Novel Questionnaire-Based and Wearable Device Monitoring Approaches for the Identification of Sleep Apnea and Atrial Fibrillation  Thomas Klingenheben
4. Key Considerations of Sleep Disordered Breathing Treatment in Atrial Fibrillation Adrian Baranchuk


## 20  Lifestyle/environment as modulators of arrhythmias?

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|---|---|
| Obesity and Exercise | Mina Chung |
| Sleep | M Kurpesa |
| Alcohol | Adrian Baranchuk |
| Stress and pollution | Valentina Kutyfa |


## 21  Should ECG interpretation for interventional therapy account for patient gender?

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|---|---|
| Sinus rates, IAST and POTS | Paweł Ptaszynski |
| The ST segment and acute coronary syndromes | Paul Malik |
| Repolarization, QT and torsade –implications for drug tx | W Zareba |
| QRS duration/ LBBB and CRT | Yong Mei Cha |
| | (ycha@mayo.edu) |


## 22  Sports cardiology

Sudden cardiac death in athletes- what's new ? (2019 update) Iwona Cygankiewicz
ECG preparticipation screening- debate continues (USA vs Europe) Mark Haigney
Cardiac arrhythmias in athletes / AFib in athletes – TBD- Vinzenz Hombach/ Philippe Chevalier
CAD in athletes – how to manage   Brian Olshansky

## 23  ECG diagnosis in-utero: fetal magnetocardiography

Bettina Cuneo Colorado, Ron Wakai PhD from Madison WI USA, Janette Strasburger Md from Milwaukee WI USA, and Hitoshi Horigome MD from Japan.

Technology

AV block Annette Wacker-Gussmann MD from Germany

Long QT syndrome

Sudden unexplained death in the fetus Parvin Dorokstar/Georgia Brugada Serequell


## 24  Self Monitoring and PRN treatment for paroxysmal arrhythmias

Patient self monitoring- How and how accurate                      Suneet Mittal

PO NOAC for AF                      Rod Passman

Intratracheal flecainide AF                      Richard Verrier

Etripamil Nasal Spray for SVT                      Bruce Stambler


## 25  Wearable Monitoring

1. Available technologies; how do they work and how accurate are they Rod Passman
2. Clinical uses of digital health in cardiology
3. Telemedicine for ACS          Najeeb Osman
4. Cybersecurity          Couderc


## 26  How to handle Asymptomatic AF detected on Monitoring

By my watch          P. Guzik

By my ILR          Rod Passman

By my pacemaker          Bulent Gorenek

By my CRT          Sergio Dubner


## *27*  Open Questions for AF Screening and Anticoagulation Therapy

What methods of ECG monitoring should be utilized: implantable vs. external devices? P Guzik

How long should ECG monitoring last for PAF screening?  E Locati

What duration of PAFepisodes should be considered significant (30 sec? 6 min? 1 hr? 6hrs? 24 hrs?...) in order to start NAO/TAO?          Mina Chung

Does prior clinical history (eg post cardiac surgery, cryptogenic stroke,…) affect interpretation? Iwona

28 Autonomic nervous system as a therapeutic target in cardiology
1.  Methods to assess autonomic nervous system – Branislav Milovanovic (Serbia)
2.  Neuroablation in syncope -  Krzysztof Kaczmarek (Poland)
3.   Invasive strategies to modulate ANS in heart failure (vagal nerve stimulation, BRS stimulation, CCM) TBD
4.  Impact of exercise on ANS-    Ewa Piotrowicz (Poland)

29 **Autonomic tone alterations in patients with**

DILAVERIS proposal

- Heart failure with reduced ejection fraction
- Heart failure with preserved ejection fraction
- Diabetes mellitus
- Neurological disorders, including neurogenic orthostatic hypotension
  - Brian Olshanksky     brian-olshansky@uiowa.edu

30 **Heart Rate: physiology, properties, tools for assessment and clinical usefulness.**
- Physiology of Heart Rate. Intrinsic rhythm and external regulation from Autonomic Nervous System. Pawel Ptaszynski /Richard Verrier
- Heart Rate in the healthy. Alterations during disease and during drug treatments. Tom Ribeiro    brian-olshansky@uiowa.edu
- ECG tools for assessment of Heart rate properties. Revealing the concealed information. (HR, Circardian HR, HRV, HRT, DC, CVHR, Stress ECG) Przemyslaw Guzik
- Factors affecting Heart Rate.  Meaning and usefulness of Resting Heart Rate & Minimum - Mean - Maximum Heart Rate. Iwona C

**31  CIEDs**
ECG interpretation                                          Birnbaum
SCAf            Milan Tysler
SQ ICD and ECG qualification             Valentina Kutyfa
Remote Monitoring                         NV

## Ivan Cakulev:Lectures

**1.Non-invasive electrocardiographic mapping in various arrhythmias**

**Ivan Cakulev(USA)**

2. **3.History of cardioversion and defibrillation.**

**Ivan Cakulev,(USA)**

## Session 32.ECG Imaging Session

**Chairs: Suave Lobodzinski(USA), Rob McLeod(USA)**
**1. State of the art in ECG Imaging – trends and future directions.**

 **Rob McLeod, ( Salt Lake City, USA)**
**2. Anatomical localization of pacing sites in CRT patients.**

 **Danila Potyagaylo, EP Solutions, Yverdon-les-Bains, (Switzerland)**
**3. Improving the diagnostic value of the ECG: 3D anatomical view.**

**Peter van Damm,( UCLA, Los Angeles, California,USA)**
**4. Towards practical ECG Imaging– Standardization of the anatomical models.**

**Suave Lobodzinski , (UCLA, Los Angeles, California,USA)**

## Session 33.Telemedicine in cardiology

**Chairs: Ewa Piotrowicz,( Poland),Branislav Milovanovic,(Serbia)**

**1.Telerehabilitation in heart failure patients - TELEREH-HF – Multicenter controlled Trial.**

**Ewa Piotrowicz,( Warsaw, Poland)**

**2.Insights from TIMI-HF 2 Trial.**

**Friedrich Kohler(Berlin,Germany)**

**3.New mobile technologies for arrhythmia detection.**

**Philipp Kopylov, (Moscow, Russia)**

**4.Hemodynamic telemonitoring in heart failure - AMULET project**

**Paweł Krzesiński, (Warsaw,Poland)**

**5.Crowdsensing Heart Care Platform: ECG for Everybody,**

**Stevan Jokic (Novi Sad,Serbia)**

## Session 34.Sudden cardiac death:risk stratification

Chairs:Branislav Milovanovic(Belgrade,Serbia),Thomas Klingenheben (Bonn,Germany)

1.New challenges in SCD risk stratification

Thomas Klingenheben,Bonn,Germany

2. Machine learning techniques:new approach in risk stratification

(Branislav Milovanovic(Belgrade,Serbia)

3. Syncope and Sudden Cardiac Death

Dmitry Duplyakov (Russia)

4. Predictors of sudden cardiac death

Galal Elkilany,(Dubai,UAE)

5. Emotional stress and sudden cardiac death
Sanja Pavlovic,(Belgrade,Serbia)

6. Role of Noninvasive Imaging for predictions of sudden cardiac death
Krassimira Hristova,(Sofia,Bulgaria)


## Session 35.Syncope

Chairs:Branislav Milovanovic,(Belgrade,Serbia), Dmitry Duplyakov(Samara,Russia),

Cristian Podoleanu (Targu Mures,Romania)

1.Autonomic tests in the evaluation of Syncope – what stands in clinical practice?

Thomas Klingenheben,(Bonn,Germany)

2.Chronic fatigue syndrome and syncope:new approach in pathophysiology and therapy

Branislav Milovanovic(Belgrade,Serbia)

3. Risk stratification in patients with syncope

Dmitry Duplyakov(Samara,Russia)

4. Syncope, epilepsy or both

Nikola Vojvodic(Belgrade,Serbia)

5.New therapeutic options for the reflex syncope

Cristian Podoleanu (Targu Mures,Romania)

# SESSIONS-NEUROCARD

## Session 36.Basic science

**Chairs: Nina Japundzic(Belgrade,Serbia), Dragan Djuric(Serbia), Bassim I Mohammad,(Iraq)**

**1.Beta adrenergic  gene expression and cardiovascular  variability in a rat model of doxorubicin induced cardiomyopathy**

**Nina Japundzic(Belgrade,Serbia)**

**2.Homocysteine  and cardiac NMDA receptors:how it should affect cardiodynamic  variables and oxidative stress,**

**Dragan Djuric(Serbia)**

**3. A Comparative Study to illustrate the Effects of Beta-1 Adrenergic Receptor Allelic Polymorphism on Disease Outcome in Iraqi Patients with Acute Coronary Syndrome (on Metoprolol Therapy).**

 **Bassim I Mohammad,(Iraq)**


## Session 37.Artificial intelligence and biosignal processing

**Chairs :Dragana Bajic(Belgrade,Serbia),Goran Krstacic(Zagreb,Croatia)**

**1.Chaos - State of the (he)art.**

 **Goran Krstacic,(Zagreb,Croatia)**

**2.Artificial intelligence, features and dependency structures in patients with Lyme diseas.**

**Dragana Bajic (Serbia)**

**3.Comparative analysis  of machine learning techniques in cardiology**

**Sladjana Jovanovic,(Belgrade,Serbia)**

**4.Artificial intelligence:clinical approach in different diseases**

**Branislav Milovanovic,(Belgrade,Serbia)**

## Session 38. ECG and electrocardiology

**Chairs: Małgorzata Kurpesa,(Lodz,Poland), Jerzy K. Wranicz,(Lodz,Poland),**

**1.When an ECG is sufficient,when the CRT memory,and when should we perform Holter monitoring in patients with implanted devices?**

**Jerzy K. Wranicz,(Lodz,Poland)**

**2.Exercise Testing with the Combyn™ 12- channel ECG:  Assessment of Myocardial Wall Tension and Aerobic Thresholds by Arterial Impedance Plethysmography**

**Falko Skrabal,(Graz, Austria)**

**3.Risk stratification in Brugada Syndrome**

**Małgorzata Kurpesa,(Lodz,Poland)**

**4.Approaches to assessment of the QT interval by Holter monitoring**

**Leonid Makarov (Moscow,Russia)**

**5.Heart rate variability disorders in young patient with ROHHAD syndrome**

**Larysa Balykova,(Saransk Russia)**


## Session 39. Athletes and sudden death risk

Chairs:Leonid Makarov (Moscow,Russia),Larysa Balykova (Saransk,Russia)

 **1.Syncope in athelts:when to worry?**

**Leonid Makarov(Moscow,Russia)**

**2.Arterial hypertension in young athletes.**

**Larisa Balykova(Saransk,Russia)**

**3. The changes of QT interval in standing position - new marker of LQ**

**Vera Komoliatova (Moscow,Russia)**

## Session 40.New advances in cardiological techniques

**Chairs: Falko Skrabal (Graz,Austria),Fabiola Sozzi (Milan,Italy),**

**1.Live Demo of the Combyn™ 12- Channel ECG: Detecting Heart Failure, Overhydration, Edema, Sarcopenia and Peripheral Arterial Occlusive Disease during the  Routine ECG**

Falko Skrabal,(Graz, Austria)

**2.Cardiac amyloidosis: diagnosis with echocardiography and MRI.**

**Fabiola Sozzi,(Milan,Italy)**

**3.Cardomagnetic resonance – are we closer to the revealing the relatioship of the microcirculation and HFpEF ?**

**Marija Zdravković,(Belgrade,Serbia)**


## Session 41.Hypertension and metabolic syndrome

**Chairs:Reuven Zimlichman(Tel Aviv,Israel),Miodrag Ostojic (Belgrade,Serbia)**

**1.Blood pressure, Arterial aging and Arteriosclerosis**

**Reuven Zimlichman ,(Tel Aviv,Israel)**

**2.Hypertension or Metabolic Syndrome as predictor of survival in Serbian Cohort of the Seven countries study**

**Miodrag Ostojic(Serbia(Belgrade)**

**3. Myocardial perfusion imaging in high risk hypertensive population**

**Galal Elkilany,(Dubai,UAE)**

**4.Arterial hypertension and atrial fibrillation - the most important risk factors for stroke in clinical practice**
 **Ludovit Gaspar,(Bratislava, Slovak Republic)**

## Session 42.Chronic inflammation and cardiovascular diseases

Chairs:Richard Cervera (Spain),Ljudmila Stojanovic (Serbia)

**1.Neurologic and Cardiovascular Antiphospholipid Syndrome (APS) Events: Lessons from the "Euro-Phospholipid Project".**

**Ricard Cervera, (Barselona,Spain)**

**2.Correlations between Systemic Cardiovascular APS manifestations: Lesions from the Serbian National Registry.**

 **Ljudmila Stojanovich,(Belgrade,Serbia)**

**3.Prevalence and Association of Accelerated Atherosclerosis and Cardiovascular Involvement in APS: a prospective long-term follow-up study.  Djokovic Aleksandra(Belgrade,Serbia)**

**4.Relationship of the Oxidative Stress Markers to Main Vascular Manifestations of APS.**

 **Stanisavljevic Natasa,(Belgrade,Serbia)**

**5.Hronic inflammation and coronary heart disease**

**Branko Beleslin,(Belgrade,Serbia)**

**6. Beyond inflammation  responses in the brain**

Jorge I. Celis, (Medellin-Colombia)