**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**

**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

1. **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

1. **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

1. **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

1. **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

1. **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

1. **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

1. **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

1. **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
1. 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

1. **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

1. **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

1. **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

1. 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

1. **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>

1. **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)

1. **Sudden cardiac death prevention**
2. Sudden cardiac death- changing epidemiology and “patients at risk” profile – Iwona CYgankiewicz
3. 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
4. ICD implantation in borderline patients ( LVEF 30-35%)-and Recovered LVEF at the time of reimplantation Thomas Kligenheben
5. ICD alternatives- subcutaneous ICD, Life Vest- Jerzy Krzysztof Wranicz
6. **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

1. **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
5. **Lifestyle/environment as modulators of arrhythmias?**

Obesity and Exercise Mina Chung

Sleep M Kurpesa

Alcohol Adrian Baranchuk

Stress and pollution Valentina Kutyfa

1. **Should ECG interpretation for interventional therapy account for patient gender?**

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)

1. **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

1. **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

1. **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

1. Wearable Monitoring
2. Available technologies; how do they work and how accurate are they Rod Passman
3. Clinical uses of digital health in cardiology
4. Telemedicine for ACS Najeeb Osman
5. Cybersecurity Couderc
6. **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

1. **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

1. Autonomic nervous system as a therapeutic target in cardiology
2. Methods to assess autonomic nervous system – Branislav Milovanovic (Serbia)
3. Neuroablation in syncope - Krzysztof Kaczmarek (Poland)
4. Invasive strategies to modulate ANS in heart failure (vagal nerve stimulation, BRS stimulation, CCM) TBD
5. Impact of exercise on ANS- Ewa Piotrowicz (Poland)
6. **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
1. **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
1. **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 1.Basic science**

**Chairs:** Elena V. Zaklyazminskaya.Moscow(Russia),**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)**

4. "**Deep phenotyping of Russian patients with Brugada Syndrome"**

Elena V. Zaklyazminskaya.Moscow(Russia)

**Session 2.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 3.Autonomic nervous system as a therapeutic target in cardiology

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**Session4..Heart Rate: physiology, properties, tools for assessment and clinical usefulness.**

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* Heart Rate in the healthy. Alterations during disease and during drug treatments. Tom Ribeiro brian-olshansky@uiowa.edu
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* Factors affecting Heart Rate. Meaning and usefulness of Resting Heart Rate & Minimum - Mean - Maximum Heart Rate. Iwona C

**Session 5. 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 6.** **Athletes and sudden death risk**

Chairs:Leonid Makarov (Moscow,Russia),Larysa Balykova (Saransk,Russia),Nenad Dikic(Belgarde,Serbia)

 **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)**

**4. Eligibility and Disqualification of Competitive Athletes With Aortic Diseases – Holistic Approach**.

**Andjelkovic Marija, Vukasinovic Vesic Milica, Dikic Nenad (Belgrade,Serbia)**

**Session 7.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 8.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 9.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)