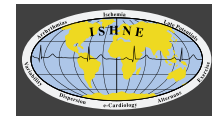


# International Congress on Electrocardiology Joint meeting of ISHNE and ISE

May 30 - June 1, 2019

Crowne Plaza Hotel • Belgrade, Serbia



## PROGRAM

30 MAY 2019, THURSDAY

07:00-08:30	<b>ISHNE Board Meeting</b>	<b>Meeting Room 4</b>
08:30-09:00	<b>Congress Opening Welcome</b> <i>Branislav Milovanovic, President of the congress ICE 2019</i> <i>Niraj Varma, President of ISHNE</i> <i>Adrian Baranchuk, President of ISE</i> <i>Mladen Sarcevic, Minister, Ministry of Education, Science and Technological Development of the Republic of Serbia</i> <i>Vladimir Popovic, State secretary, Ministry of Education, Science and Technological Development of the Republic of Serbia</i> <i>Zlatibor Loncar, Minister, Ministry of Health of the Republic of Serbia</i> <i>Ana Djordjevic Dikic, President of Cardiology Society of Serbia</i> <i>Radoje Colovic, President of Serbian medical society</i> <i>Ilija Brceski, European Academy Of Sciences And Arts</i>	<b>Meeting Room 1</b>
09:00-17:00	<b>Poster Presentations</b>	
	<b>QRS as a key selection criterion for CRT</b> Chairmen: <b>Branislav Milovanovic, Wojciech Zareba</b>	<b>Meeting Room 1</b>
09:10-09:30	<b>QRS duration or morphology: What really matters for CRT selection?</b> <i>Jayakumar Sahadevan (USA)</i>	
09:30-09:50	<b>Which definition of LBBB should I apply?</b> <i>Ljuba Bacharova (Slovakia)</i>	
09:50-10:10	<b>Do we need machine learning to select the right patient for CRT?</b> <i>Mina Chung (USA)</i>	
10:10-10:30	<b>Should QRS duration be recalibrated to body size in selecting patients for CRT?</b> <i>Niraj Varma (USA)</i>	
	<b>Wearable monitoring</b> Chairmen: <b>Emanuela Locati, Suave Lobodzinski</b>	<b>Meeting Room 2</b>
09:10-09:30	<b>Available technologies; how do they work and how accurate are they?</b> <i>Jonathan Steinberg (USA)</i>	
09:30-09:50	<b>What are limitations of wearable ECGs?</b> <i>Polychronis Dilaveris (Greece)</i>	
09:50-10:10	<b>Self monitoring and self medication : NOAC for AF</b> <i>Rod Passman (USA)</i>	
10:10-10:30	<b>Cybersecurity</b>	

**Athletes and sudden death risk****Meeting Room 3****Chairmen: Brian Olshansky, Ludovit Gaspar**

- 09:10-09:30**    **Arterial hypertension in young athletes**  
*Larisa Balykova (Russia)*
- 09:30-09:50**    **Syncope in athletes: When to worry?**  
*Leonid Makarov (Russia)*
- 09:50-10:10**    **The changes of QT interval in standing position - new marker of LQ**  
*Vera Komoliatova (Russia)*
- 10:10-10:30**    **Eligibility and disqualification of competitive athletes with aortic diseases -holistic approach**  
*Marija Andjelkovic (Serbia) and Milica Vukašinović Vesić (Serbia)*
- 10:30-10:50**    **Coffee Break**

**Electrocardiology in risk stratification****Meeting Room 1****Chairmen: Takanori Ikeda, Richard Verrier**

- 10:50-11:10**    **ECG predictors of cardiac mortality through our experience**  
*Takanori Ikeda (Japan)*
- 11:10-11:30**    **Role of noninvasive imaging for predictions of sudden cardiac death**  
*Krassimira Hristova (Bulgaria)*
- 11:30-11:50**    **Machine learning techniques: New approach in risk stratification**  
*Branislav Milovanovic (Serbia)*
- 11:50-12:10**    **ECG & VCG aspects in brugada and RV dysplasia**  
*Carlos Pastore (Brazil)*
- 12:10-12:30**    **ECG risk stratificationin candidates for TAVI**  
*Paul Malik (Canada)*

**Sports cardiology****Meeting Room 2****Chairmen: Luigi De Ambroggi, Leonid Makarov**

- 10:50-11:10**    **Sudden cardiac death in athletes - What's new ? (2019 update)**  
*Iwona Cygankiewicz (Poland)*
- 11:10-11:30**    **CAD in athletes - how to manage**  
*Brian Olshansky (USA)*
- 11:30-11:50**    **ECG preparticipation screening - debate continues (USA vs Europe)**  
*Mark Haigney (USA)*
- 11:50-12:10**    **T wave inversion in athletes**  
*Peter Macfarlane (UK)*
- 12:10-12:30**    **Cardiac arrhythmias in athletes / AFib in athletes**  
*Philippe Chevalier (France)*

**10:30-12:00 Oral Abstracts Meeting Room 3**

**Chairmen: Miguel Fiol, Jerzy Krzysztof Wranicz**

- 10:30-10:45 J-Wave in ischemic conditions – is it really an early repolarization?**  
*Alena Tsvetkova, Yan Azarov, Alexey Ovechkin, Olesya Bernikova, Marina Vaykshnorayte, Marina Demidova and Pyotr Platonov*
- 10:45-11:00 Diagnostic yield of the target gene panels testing in Russian patients with arrhythmogenic right ventricular cardiomyopathy and overlapping phenotypes**  
*Anna Shestak, Anna Bukaeva, Olga Blagova, Yulia Lutokhina, Margarita Polyak, Sergei Dzemeshkevich and Elena Zaklyazminskaya*
- 11:00-11:15 Antiarrhythmic effect of melatonin is associated with enhanced myocardial connexin-43 and PKC- signaling in male hypertensive and female obese rats**  
*Narcisa Tribulova, Tamara Egan Benova, Barbara Szeiffova Bacova, Vladimir Knezl and Miroslav Barancik*
- 11:15-11:30 A feasibility study to evaluate activation patterns during simultaneous biventricular pacing based on different ECGI algorithms**  
*Stepan Zubarev, Mikhail Chmelevsky, Danila Potyagaylo, Margarita Budanova and Dmitry Lebedev*
- 11:30-11:45 Comparison of CARTO LAT maps and non-invasive activation maps created using algorithms of Tikhonov Regularization for electrical potentials**  
*Margarita Budanova, Mikhail Chmelevsky, Danila Potyagaylo, Stepan Zubarev, Aleksey Tsyganov and Tatjana Treshkur*

**12:30-13:30 Lunch Break**

**Luncheon Session 1 Abbott: CRT fails in a third of my patients - accept or intervene? Meeting Room 1**

**Chairmen: Niraj Varma, Goran Milasinovic**

- 12:40-12:55 The paced QRS- does it predict NRs?**  
*Marek Jastrzebski (Poland)*
- 12:55-13:10 MPP to improve LV activation**  
*Niraj Varma (USA)*
- 13:10-13:25 Dynamic pacing to improve CRT response**  
*Brian Wisnoskey (USA)*

**Diagnosis and management of unexplained syncope****Meeting Room 1****Chairmen: Dmitry Duplyakov, Thomas Klingenheben**

- 13:30-13:50** **Current challenges with syncope patients**  
*Antonio Raviele (Italy)*
- 13:50-14:10** **Autonomic disorders and syncope**  
*Brian Olshansky (USA)*
- 14:10-14:30** **Syncope in athletes: What is the best diagnostic pathway?**  
*Felix Ayala-Paredes (Canada)*
- 14:30-14:50** **What ECG markers are available for identifying cardiogenic syncope?**  
*Sam Johnston (USA)*
- 14:50-15:10** **Neuroablation in syncope**  
*Krzysztof Kaczmarek (Poland)*
- 15:10-15:50** **Coffee Break**

**New insights into AF mechanisms****Meeting Room 2****Chairmen: Jonathan Steinberg, Mark Potse**

- 13:30-13:50** **P wave indices: Improving stroke prediction in AF**  
*Lin Yee Chen (USA)*
- 13:50-14:10** **Advanced interatrial block as a risk factor for atrial fibrillation and stroke**  
*Antoni Bayes de Luna (Spain)*
- 14:10-14:30** **Can P Wave wavelet analysis predict atrial fibrillation**  
*Vass Vassilikos (Greece)*
- 14:30-14:50** **Atrial fibrillation dynamics**  
*Mark Potse (The Netherlands)*
- 14:50-15:10** **Epicardial contact mapping**  
*Jayakumar Sahadevan (USA)*

**Basic science****Meeting Room 3****Chairmen: Leonid Makarov, Nina Zigon Japundzic**

- 13:30-13:50** **Pluripotent stem cells in sudden cardiac death research**  
*Mark Haigney (USA)*
- 13:50-14:10** **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)*
- 14:10-14:30** **Deep phenotyping of Russian patients with brugada syndrome**  
*Elena V. Zaklyazminskaya (Russia)*
- 14:30-14:50** **Beta adrenergic gene expression and cardiovascular variability in a rat model of doxorubicin induced cardiomyopathy**  
*Nina Japundzic (Serbia)*

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**The his bundle and its arborizations****Meeting Room 1****Chairmen: Antoni Bayes de Luna, Sergio Dubner**

- 15:30-15:50**    **Trifascicular or tetrafascicular nature of the left bundle branch - anatomy and LV depolarization**  
*Andres Ricardo Perez-Riera (Brazil)*
- 15:50-16:10**    **The left septal fascicle – clinical implications**  
*Ryszard Piotrowicz (Poland)*
- 16:10-16:30**    **His bundle pacing**  
*Jonathan Steinberg (USA)*
- 16:30-16:50**    **SVTs using the proximal HPS**  
*Najeeb Osman (USA)*
- 16:50-17:00**    **Discussions**

**Heart Rate: Physiology, properties, tools for assess and clinical usefulness.****Meeting Room 2****Chairmen: Pyotr Platonov, Iwona Cygankiewicz**

- 15:30-15:55**    **Physiology of heart rate. Intrinsic rhythm and external regulation from autonomic nervous system**  
*Pawel Ptaszynski (Poland)*
- 15:55-16:20**    **Clinical and epidemiological implications of heart rate**  
*Tom Ribeiro (Brazil)*
- 16:20-16:45**    **Prognostic significance of heart rate**  
*Wojciech Zareba (USA)*

15:30-17:00	ISHNE best abstracts	Meeting Room 3
Chairmen: Niraj Varma, Takanori Ikeda		
15:30-15:45	<b>Smartwatch performance for the detection and quantification of atrial fibrillation</b>	<i>Jeremiah Wasserlauf, Cindy You, Ruchi Patel, Alexander Valys, David Albert and Rod Passman</i>
15:45-16:00	<b>The usefulness of dual cardiac autonomic nervous modulation assessment for prediction of mortality in patients with relatively preserved left ventricular ejection fraction</b>	<i>Toshio Kinoshita, Atsuko Abe, Ryo Wada, Kensuke Yano, Katsuya Akitsu, Masaya Shinohara, Hideki Koike, Hitomi Yuzawa, Takeya Suzuki, Tadashi Fujino and Takanori Ikeda</i>
16:00-16:15	<b>Noninvasive beat-to-beat epi-endocardial mapping in patients with ventricular arrhythmias</b>	<i>Mikhail Chmelevsky, Stepan Zubarev, Margarita Budanova, Danila Potyagaylo, Tatjana Treshkur and Dmitry Lebedev</i>
16:15-16:30	<b>Should we take gestational age into consideration when assessing an ECG?</b>	<i>Marina Pimenta, Nelson Samesima, Carlos Alberto Pastore, Vera Lucia Krebs, Gabriela Leal and Werther Carvalho</i>
16:30-16:45	<b>Sensitivity to electrode placement of a novel automated ECG-vector algorithm to localize the PVC origin</b>	<i>Peter van Dam, Roger Abächerli and Tobias Reichlin</i>
16:45-17:00	<b>New electrocardiographic score for the prediction of atrial fibrillation: MVP ECG risk score (Morphology-voltage-P-wave duration)</b>	<i>Bryce Alexander, Julia Milden, Sohaib Haseeb, Antoni Bayes-Genis, Roberto Elosua, Manuel Martínez-Sellés, Cynthia Yeung, Wilma Hopman, Antoni Bayes de Luna and Adrian Baranchuk</i>
20:00	<b>Gala Dinner</b>	

07:00-08:30	<b>ISE Council Meeting</b>	<b>Meeting Room 4</b>
	<b>Pierre Rijlant Memorial Lecture</b> Chairmen: Peter Macfarlane, Adrian Baranchuk	<b>Meeting Room 1</b>
08:30-09:00	<b>Big Data in Electrocardiography</b> <i>Tom Ribeiro (Brazil)</i>	
09:00-18:15	<b>Poster Presentations</b>	
	<b>Brugada syndrome</b> Chairmen: Takanori Ikeda	<b>Meeting Room 1</b>
9:00-9:20	<b>Brugada phenocopy</b> <i>Adrian Baranchuk (Canada)</i>	
9:20-9:40	<b>Early repolarization vs brugada pattern</b> <i>Peter MacFarlane (UK)</i>	
9:40-10:00	<b>ECG diagnosis- RsR' in V1 lead and differential diagnosis</b> <i>Gary Tse (China)</i>	
10:00-10:20	<b>Risk Stratification using non-invasive ECG techniques in brugada syndrome</b> <i>Konstantino Letsas (Greece)</i>	
10:20-10:40	<b>Risk stratification in family members in brugada syncrome</b> <i>Malgorzata Kurpesa (Poland)</i>	
	<b>Tachycardiomyopathy</b> Chairmen: Bulent Gorenek, Philippe Chevalier	<b>Meeting Room 2</b>
09:00-09:25	<b>When to ablate PVC</b> <i>Bulent Gorenek (Turkey)</i>	
09:25-09:50	<b>RV pacing</b> <i>Valentina Kutyifa (USA)</i>	
09:50-10:15	<b>Do tachycardia induced CM differ to other NICM?</b> <i>Philippe Chevalier (France)</i>	
10:15-10:40	<b>Noninvasive localization of premature ventricular contractions</b> <i>Milan Tysler (Slovakia)</i>	
	<b>Innovations in Electrocardiology</b> Chairmen: Branko Beleslin, Luigi DeAmbroggi	<b>Meeting Room 3</b>
09:00-09:20	<b>Continuous assessment of late potentials by Holter-based signal-averaged ECGs over 24 hours</b> <i>Takanori Ikeda (Japan)</i>	
09:20-09:40	<b>Inhaled flecainide for accelerated conversion of new-onset atrial fibrillation</b> <i>Richard Verrier (USA)</i>	
09:40-10:00	<b>Exercise testing with the Combyn™ 12- channel ECG: Assessment of myocardial wall tension and aerobic thresholds by arterial impedance plethysmography</b> <i>Falko Skrabal (Austria)</i>	
10:00-10:20	<b>Heart rate variability disorders in young patient with ROHHAD syndrome</b> <i>Larisa Balykova (Russia)</i>	
10:20-10:40	<b>Approaches to assessment of the QT interval by holter monitoring</b> <i>Leonid Makarov (Russia)</i>	
10:40-11:00	<b>Coffee Break</b>	

**ECG Imaging Session****Meeting Room 1****Chairmen: Rob MacLeod, Mark Potse**

- 11:00-11:20**    **Anatomical localization of pacing sites in CRT patients**  
*Danila Potyagaylo (Germany)*
- 11:20-11:40**    **Improving the diagnostic value of the ECG: 3D anatomical view**  
*Peter van Dam (Switzerland)*
- 11:40-12:00**    **State of the art in ECG imaging – trends and future directions**  
*Rob MacLeod (USA)*
- 12:00-12:20**    **Towards practical ECG Imaging – standardization of the anatomical models**  
*Suave Lobodzinski (USA)*
- 12:20-12:40**    **ECG Imaging without imaging**  
*Mark Potse (The Netherlands)*

**Sleep disordered breathing and atrial fibrillation:  
Mechanistic and clinical insights****Meeting Room 2****Chairmen: Ryszard Piotrowicz, Brian Olshansky**

- 11:00-11:20**    **Key considerations of sleep disordered breathing treatment in atrial fibrillation**  
*Adrian Baranchuk (Canada)*
- 11:20-11:40**    **Clarifying the role of the autonomic nervous system in sleep apnea and atrial arrhythmogenesis**  
*Brian Olshansky (USA)*
- 11:40-12:00**    **Novel questionnaire-based and wearable device monitoring approaches for the identification of sleep apnea and atrial fibrillation**  
*Thomas Klingenheben (Germany)*
- 12:00-12:20**    **Holter monitoring in sleep disordered breathing diagnosis**  
*Malgorzata Kurpesa (Poland)*
- 12:20-12:40**    **P wave and P Wave vector morphology and AF**  
*Pyotr Platonov (Sweden)*



11:30 – 13:00	Oral Abstracts	Meeting Room 3
11:30-11:45	<b>The advantage of Bachmann's-Bundle pacing combined with His-Bundle Pacing</b> <i>Peter Stephan Wolff, Piotr Strozik, Jacek Marcin Zawadzki, Aleksandra Gajek, Dorota Zysko, Adam Cisielski, Agnieszka Slawuta and Prof. Dr. Jacek Gajek</i>	
11:45-12:00	<b>The Use of Noninvasive Arrhythmia Mapping: A Single Center Experience</b> <i>Zorana Mrsic, Matthew Needleman, Mark Haigney and Stephanie Andersen</i>	
12:00-12:15	<b>Diurnal Index of Heart Rate for Risk Assessment in Patients with Permanent Atrial Fibrillation</b> <i>Irena Kurcalte</i>	
12:15-12:30	<b>The diagnostic trap of selective His – bundle pacing</b> <i>Peter Stephan Wolff, Jakub Mercik, Piotr Strozik, Jacek Marcin Zawadzki, Aleksandra Gajek, Agnieszka Slawuta and Prof. Dr. Jacek Gajek</i>	
12:45-13:10	<b>ISHNE General Assembly</b>	<b>Meeting Room 1</b>
	<b>Luncheon Session 2 Medtronic: Advantages and disadvantages of automatic diagnostics with implantable devices</b> <b>Chairmen: Goran Milasinovic</b>	<b>Meeting Room 1</b>
13:10-13:30	<b>Advantages and disadvantages of automatic diagnostics with implantable devices</b> <i>Bozidar Ferek Petric (Croatia)</i>	
13:30-13:50	<b>Automatic diagnostics of hemodynamic parameters in CRT devices</b> <i>Goran Milasinovic (Serbia)</i>	
13:50-14:10	<b>Prolonged automatic monitoring of heart rhythm in the light of new recommendations</b> <i>Dragan Kovacevic (Serbia)</i>	
13:00-14:15	<b>Lunch Break</b>	

**14:15-15:45 ISE Young Investigator Competition (YIC) Meeting Room 1**

Chairmen: Rob MacLeod, Tom Ribeiro

- 14:15-14:30** Screening for atrial fibrillation using a mobile, single-Lead electrocardiogram in Canadian primary care clinics  
*Cynthia Yeung, Adrian Baranchuk, Peter Guerra and Jeff Healey*
- 14:30-14:45** Prognostic value of ECG in patients with pulmonary embolism  
*Irina Mullova, Tatyana Pavlova, Sergey Khokhlunov and Dmitry Duplyakov*
- 14:45-15:00** Can slow breathing exercise improve the autonomic nervous imbalance in chronic kidney disease patients?  
*Kentaro Kaneko, Shin-ichi Sekizawa, Ryota Tochinai, Machiko Yamamoto and Masayoshi Kuwahara*
- 15:00-15:15** Research mentorship and leadership development for undergraduate students: A pilot study from the international health informatics study (IHIS) network  
*Gary Tse, Ka Hou Christien Li, Rachel Wing Chuen Lai, Sohaib Haseeb and Adrian Baranchuk*
- 15:15-15:30** Radiotherapy for patients with cardiovascular Implantable electronic devices: An 11-year experience  
*Cynthia Yeung, Bachar Hazim, Debra Campbell, Jim Gooding, Shirley Li, Ho Kit Tam, Wilma Hopman, Sanoj Chacko, Damian Redfearn, Chris Simpson, Hoshiar Abdollah and Adrian Baranchuk*
- 15:30-15:45** Association of ACE I/D, AGTR1 +1166A/C and AGTR2 -1332A/G gene variants with autonomous nervous system function in Serbian syncope patients  
*Ivana Kolic, Ivan Zivotic, Tamara Djuric, Maja Zivkovic, Dragan Alavantic, Dusica Jovanovic, Branislav Milovanovic and Aleksandra Stankovic*

**15:55-16:15 Coffee Break**

**Syncope Meeting Room 2**

Chairmen: Emanuela Locati, Dmitry Duplyakov

- 14:15-14:35** Chronic fatigue syndrome and syncope: New approach in pathophysiology and therapy  
*Branislav Milovanovic (Serbia)*
- 14:35-14:55** New therapeutic options for the reflex syncope  
*Cristian Podoleanu (Romania)*
- 14:55-15:15** Risk stratification in patients with syncope  
*Dmitry Duplyakov (Russia)*
- 15:15-15:35** Syncope, epilepsy or both  
*Nikola Vajvodic (Serbia)*
- 15:35-15:55** Autonomic tests in the evaluation of syncope - what stands in clinical practice?  
*Thomas Klingenhoben (Germany)*

**New advances in cardiological techniques****Meeting Room 3****Chairmen: Krassimira Hristova, Falco Skrabal**

- 14:15-14:40**    **Localization of MI: CMR - ECG correlations**  
*Yochai Birnbaum (USA)*
- 14:40-15:05**    **Tracking interlead ECG heterogeneity for detection of arrhythmia risk**  
*Richard Verrier (USA)*
- 15:05-15:30**    **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 (Austria)*
- 15:30-15:55**    **Cardiomagnetic resonance in diagnosis of heart failure**  
*Marija Zdravković (Serbia)*

**Optimization of cardiac resynchronization therapy****Meeting Room 1****Chairmen; Niraj Varma, Valentina Kutyifa**

- 16:15-16:35**    **ECG and holter**  
*Wojciech Zareba (USA)*
- 16:35-16:55**    **Prolonged PR and benefit from CRT**  
*Valentina Kutyifa (USA)*
- 16:55-17:15**    **When ECG is sufficient, when the CRT memory, and when should we perform holter monitoring in patients with implanted devices?**  
*Jerzy Krzysztof Wranicz (Poland)*
- 17:15-17:35**    **The automatic algorithms provided by the devices**  
*Niraj Varma (USA)*
- 17:35-17:55**    **CRT in patients with atrial fibrillation**  
*Polychronis Dilaveris (Greece)*
- 17:55-18:15**    **Cardiac rehabilitation in heart failure patients with CRT devices**  
*Ewa Piotrowicz (Poland)*

**Chronic inflammation and cardiovascular diseases****Meeting Room 2**

Chairmen: Ljudmila Stojanovic, Ricard Cervera

- 16:15-16:35 **Neurologic and cardiovascular antiphospholipid syndrome (APS) Events: Lessons from the "Euro-Phospholipid project"**  
*Ricard Cervera (Spain)*
- 16:35-16:55 **Chronic inflammation and coronary heart disease**  
*Branko Beleslin (Serbia)*
- 16:55-17:15 **Beyond inflammation responses in the brain**  
*Jorge I. Celis (Colombia)*
- 17:15-17:35 **Correlations between systemic cardiovascular APS manifestations: Lesions from the Serbian National Registry**  
*Ljudmila Stojanovich (Serbia)*
- 17:35-17:55 **Relationship of the oxidative stress markers to main vascular manifestations of APS**  
*Natasa Stanisavljevic (Serbia)*
- 17:55-18:15 **Prevalence and association of accelerated atherosclerosis and cardiovascular involvement in APS: a prospective long-term follow-up study**  
*Aleksandra Djokovic (Serbia)*

**Artificial intelligence and biosignal processing****Meeting Room 3**

Chairmen: Goran Krstacic, Dragana Bajic

- 16:15-16:35 **Artificial intelligence: Clinical approach in different diseases**  
*Branislav Milovanovic (Serbia)*
- 16:35-16:55 **Chaos - state of the (he)art**  
*Goran Krstacic (Croatia)*
- 16:55-17:15 **Comparative analysis of machine learning techniques in cardiology**  
*Sladjana Jovanovic (Serbia)*
- 17:15-17:35 **Artificial intelligence, features and dependency structures in patients with Lyme diseases**  
*Dragana Bajic (Serbia)*
- 17:35-17:55 **Prediction of left ventricular ejection fraction by human or machine learning by standard ECG: human vs. artificial intelligence or combined?**  
*Miodrag Ostojic (Serbia)*

**20:00 Welcome Reception**

<b>07:00-08:30</b>	<b>ISHNE Council Meeting</b>	<b>Meeting Room 3</b>
<b>07:00-08:30</b>	<b>JE Editorial Board Meeting</b>	<b>Meeting Room 4</b>
	<b>Telemedicine in cardiology</b>	<b>Meeting Room 1</b>
	<b>Chairmen: Emanuela Locati, Ryszard Piotrowicz</b>	
<b>09:00-09:20</b>	<b>Telerehabilitation in heart failure patients - TELEREH-HF - multicenter controlled trial</b> <i>Ewa Piotrowicz (Poland)</i>	
<b>09:20-09:40</b>	<b>Insights from TIMI-HF 2 trial</b> <i>Friedrich Kohler (Germany)</i>	
<b>09:40-10:00</b>	<b>Hemodynamic telemonitoring in heart failure - AMULET project</b> <i>Pawel Krzesinski (Poland)</i>	
<b>10:00-10:20</b>	<b>New mobile technologies for arrhythmia detection</b> <i>Philipp Kopylov (Russia)</i>	
<b>10:20-10:40</b>	<b>Crowdsensing heart care platform: ECG for everybody</b> <i>Stevan Jokic (Serbia)</i>	
	<b>ISHNE ECG University</b>	<b>Meeting Room 2</b>
	<b>Chairmen: Jonathan Steinberg, Sergio Dubner, Adrian Baranchuk</b>	
<b>09:00-09:20</b>	<b>ECG University V1: milestones, learning curve, successes and failures</b> <i>Jonathan Steinberg (USA)</i>	
<b>09:20-09:40</b>	<b>ECG University structure: technicalities, website construction, interaction, and examination online</b> <i>Sergio Dubner (Argentina)</i>	
<b>09:40-10:00</b>	<b>ECG University V2: Funding, structure, topics, presenters and new challenges</b> <i>Adrian Baranchuk (Canada)</i>	
<b>10:00-10:20</b>	<b>12-lead interpretation of pacemakers/ICDs</b> <i>Yochai Birnbaum (USA)</i>	
<b>10:20-10:40</b>	<b>Risk stratification in ARVD</b> <i>Pyotr Platonov (Sweden)</i>	

**10:40-11:00 Coffee Break**

**Open questions for AF screening and anticoagulation therapy**

**Meeting Room 1**

**Chairmen: Sergio Dubner, Antonio Raviele**

**11:00-11:25 How long should ECG monitoring last for PAF screening?**

*Emanuela Locati (Italy)*

**11:25-11:50 Does prior clinical history (eg post cardiac surgery, cryptogenic stroke,...) affect interpretation?**

*Iwona Cygankiewicz (Poland)*

**11:50-12:15 Anticoagulant therapy- regional differences**

*Sergio Dubner (Argentina)*

**12:15-12:40 What duration of PAF episodes should be considered significant (30 sec? 6 min? 1 hr? 6hrs? 24 hrs?...) in order to start NAO/TAO?**

*Mina Chung (USA)*

**Diagnosis and management of ventricular tachycardia**

**Meeting Room 2**

**Chairmen: Parvin Dorostkar, Pawel Ptaszynski**

**11:00-11:20 Pharmacological treatment of VT**

*Wojciech Zareba (USA)*

**11:20-11:40 ICD programming in reducing unnecessary and inappropriate therapy**

*Valentina Kutryfa (USA)*

**11:40-12:00 New systems of body surface mapping: The role of CardioInsight**

*Ivan Cakulev (USA)*

**12:00-12:20 Current indications for VT ablation**

*Dejan Vukajlovic (Serbia)*

**12:20-12:40 Noninvasive ablation with radiotherapy**

*Marcio Sturmer (Canada)*

**Hypertension and metabolic syndrome**

**Meeting Room 3**

**Chairmen: Reuven Zichlichman, Miodrag Ostojic**

**11:00-11:20 How to differentiate LVH from athlete's heart**

*Nelson Samesima (Brazil)*

**11:20-11:40 Limitations of surface ECG for the diagnosis of LVH**

*Ljuba Bacharova (Slovakia)*

**11:40-12:00 Arterial hypertension and atrial fibrillation - the most important risk factors for stroke in clinical practice**

*Ludovit Gaspar (Slovakia)*

**12:00-12:20 Hypertension or metabolic syndrome as predictor of survival in Serbian cohort of the seven countries study**

*Biljana Parapid (Serbia), Biljana Obrenović-Kirćanski (Serbia), Miodrag Ostojic (Serbia)*

**12:20-12:40 Blood pressure, arterial aging and arteriosclerosis**

*Reuven Zimlichman (Israel)*

<b>12:40-13:00</b>	<b>ISE General Assembly</b>	<b>Meeting Room 1</b>
<b>13:00-14:00</b>	<b>Lunch Break</b>	
<b>13:10-13:45</b>	<b>Luncheon Session 3 PMI: Cardiovascular Effects of the Tobacco Heating System (THS) 2.2 Compared with Continued Smoking</b>	<b>Meeting Room 1</b>
<b>13:45-14:20</b>	<b>Luncheon Session 4: History of Cardioversion and Defibrillation</b> Chairmen: Niraj Varma, Branislav Milovanovic <i>Ivan Cakulev (USA)</i>	<b>Meeting Room 1</b>
	<b>How to handle asymptomatic AF detected on monitoring</b> Chairmen: Bulent Gorenek, Polychronis Dilaveris	<b>Meeting Room 1</b>
<b>14:20-14:40</b>	<b>BY ECG or holter</b> <i>Bartosz Szafran (Poland)</i>	
<b>14:40-15:00</b>	<b>By my watch or patch</b> <i>Jonathan Steinberg (USA)</i>	
<b>15:00-15:20</b>	<b>By my ILR</b> <i>Rod Passman (USA)</i>	
<b>15:20-15:40</b>	<b>By my pacemaker or ICD</b> <i>Bulent Gorenek (Turkey)</i>	
	<b>Lifestyle/environment as modulators of arrhythmias?</b> Chairmen: Ewa Piotrowicz, Mina Chung	<b>Meeting Room 2</b>
<b>14:00-14:20</b>	<b>Emotional stress and sudden cardiac death</b> <i>Sanja Pavlovic (Serbia)</i>	
<b>14:20-14:40</b>	<b>Obesity and exercise</b> <i>Mina Chung (USA)</i>	
<b>14.40-15:00</b>	<b>Mediterranean diet</b> <i>Miguel Fiol (Spain)</i>	
<b>15:00-15:20</b>	<b>Alcohol</b> <i>Adrian Baranchuk (Canada)</i>	
<b>15:30-16:00</b>	<b>Closing Ceremony</b>	<b>Meeting Room 1</b>

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- 94 **Comparative Analysis of Machine Learning Techniques in Cardiology**  
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