

Scientific Program

Thursday - June 28

8:00 Registration opens

Room 1 (2F [Int'l Conference Room])

9:00 ~ 10:00 Symposium 1 ECG Techniques and Risk Assessment

Moderators: Malgorzata Sobieszczanska (Poland)
Tetsunori Saikawa (Japan)

- [SY1-1] **HRV for assessment of SCD**
Eiichi Watanabe (Japan)
- [SY1-2] **Beat-to-beat measurements of ventricular repolarization.**
György Kozmann (Hungary)
- [SY1-3] **Role of HRV in prediction of risk of death in sepsis**
Antonio Luiz Pinho Ribeiro (Brazil)
- [SY1-4] **Sleep disordered breathing as a cardiologic risk factor**
Malgorzata Kurpesa (Poland)

10:00 ~ 10:10 Break

10:10 ~ 11:25 Sponsored Session 1 Management of AF

Co-sponsored with Bayer Yakuhin

Moderators: Sergio Dubner (Argentina)
Kaoru Sugi (Japan)

- [SS1-1] **Neuromodulation of AF**
Jonathan S. Steinberg (USA)
- [SS1-2] **Risk of thromboembolism in patients with AF**
Eitaro Kodani (Japan)
- [SS1-3] **Management of asymptomatic AF**
Jose Gant Lopez (Argentina)
- [SS1-4] **Real world data using DOAC for AF management**
Yuji Murakawa (Japan)
- [SS1-5] **Subclinical AF: Does it matter?**
Pyotr Platonov (Sweden)

11:25 ~ 11:35 Break

11:35 ~ 12:20 Pierre Rijlant Lecture

Co-sponsored with HeartSciences

Moderators: Adrian Baranchuk (Canada)
Takanori Ikeda (Japan)

[PRL-1] **Relation between the world and Japan in ISHNE's congress activity**
Teruhisa Tanabe (Japan)

[PRL-2] **Overview of Japanese contribution to the International Society of Electrocardiology**
Masayasu Hiraoka (Japan)

12:20 ~ 12:40 Break

12:40 ~ 13:35 Luncheon Seminar 1 AF and Stroke Management

Co-sponsored with Daiichi Sankyo

Moderators: Bulent Gorenec (Turkey)
Haruhiko Abe (Japan)

[LS1-1] **AF in Inherited arrhythmia disorders**
Wojciech Zareba (USA)

[LS1-2] **Detection of silent and subclinical AF**
Emanuela Teresa Locati (Italy)

[LS1-3] **Imaging modalities for stroke diagnosis: Insight into management of AF**
Takanori Ikeda (Japan)

13:35 ~ 13:50 Break

13:50 ~ 15:05 Sponsored Session 2 Risk Stratification and Management

Co-sponsored with Fukuda Denshi

Moderators: Milan Tysler (Slovakia)
Takao Katoh (Japan)

[SS2-1] **Periodic repolarization dynamics: A novel marker of cardiac repolarization**
Alex Bauer (Germany)

[SS2-2] **SCD risk in patients from "grey zone" LVEF 30-40%**
Iwona Cygankiewicz (Poland)

[SS2-3] **Artificial intelligence and sudden cardiac death risk stratification**
Branislav Milovanovic (Serbia)

[SS2-4] **Risk stratification in LVD patients: the JANIES Study**
Takanori Ikeda (Japan)

[SS2-5] **ECG-based risk stratification in acute coronary syndrome**
Kjell Nikus (Finland)

15:05 ~ 15:15 Break

15:15 ~ 16:30 Sponsored Session 3 Implantable Cardiac Devices

Co-sponsored with Boston Scientific

Moderators: Kjell Nikus (Finland)
Mahito Noro (Japan)

- [SS3-1] **Approach to the interpretation of the 12-lead ECGs of pacemaker/ICDs**
Yochai Birnbaum (USA)
- [SS3-2] **Current status of device use: Western countries vs Japan**
Kazutaka Aonuma (Japan)
- [SS3-3] **Remote control of implantable devices**
Emanuela Teresa Locati (Italy)
- [SS3-4] **Indication of subcutaneous ICD in Japan**
Masahiko Goya (Japan)
- [SS3-5] **Use of routine 12-lead ECG to determine eligibility to subcutaneous ICD**
Larisa Tereshchenko (USA)

17:30 ~ 21:30 Social Events Excursion and Dinner

Room 3 (1F [Room 103])

9:00 ~ 10:00 Topics 1 Arrhythmogenicity and Pharmacology

Moderators: Milan Tysler (Slovakia)
Akiko Chishaki (Japan)

- [TO1-1] **Anti-atrial fibrillatory, proarrhythmic, and cardiodepressive profiles of anti-arrhythmic drugs**
Atsushi Sugiyama (Japan)
- [TO1-2] **Arrhythmogenic property in hemorrhagic shock heart : Optical mapping analysis**
Bonpei Takase (Japan)
- [TO1-3] **Implementation of deep learning in ECG interpretation.**
Xin Zhu (Japan)
- [TO1-4] **Relation between alcohol and cardiovascular system**
Adrian Baranchuk (Canada)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Topics 2 Brugada Syndrome

Moderators: Wojciech Zareba (USA)
Minoru Horie (Japan)

- [TO2-1] **Vectorcardiogram: Brugada syndrome vs early repolarization**
Nelson Samesima (Brazil)
- [TO2-2] **Clinical features of Brugada syndrome patients**
Hiroshi Morita (Japan)
- [TO2-3] **Maneuvers for the electrocardiographic diagnosis of Brugada syndrome**
Manlio F. Márquez (Mexico)

[TO2-4] **Risk stratification in Brugada syndrome**
Masahiko Takagi (Japan)

11:10 ~ 11:20 Break

11:20 ~ 12:20 Topics 3 Heart Monitoring and Arrhythmia Detection

Moderators: Iwona Cygankiewicz (Poland)
Naohiko Takahashi (Japan)

[TO3-1] **Enabling contactless cardiac monitoring**
Jean-Philippe Couderc (USA)

[TO3-2] **Automatic remote monitoring utilizing daily transmissions**
Niraj Varma (USA)

[TO3-3] **Detection of arrhythmias using remote monitoring**
Eiichi Watanabe (Japan)

[TO3-4] **Evaluation of QT memory from Holter ECG monitoring**
Marcio Sturmer (Canada)

12:20 ~ 12:40 Break

12:40 ~ 13:35 Luncheon Seminar 2 AF and Real World Data

Co-sponsored with Bristol-Myers Squibb / Pfizer Japan

Moderators: Carlos Alberto Pastore (Brazil)
Eiichi Watanabe (Japan)

[LS2-1] **Ambulatory ECG for detection of AF**
Jonathan S. Steinberg (USA)

[LS2-2] **Issues of anti-coagulant from real world data**
Shun Kohsaka (Japan)

[LS2-3] **Important points in Anticoagulation for Elderly AF patients**
Keitaro Senoo (Japan)

13:35 ~ 13:50 Break

13:50 ~ 14:50 Topics 4 Simulation and Modeling

Moderators: Mark Potse (Netherlands)
Shin Inada (Japan)

[TO4-1] **Dynamics of electrical rotors in the heart**
Haruo Honjo (Japan)

[TO4-2] **Computational ECG in acute ischemia**
Rob MacLeod (USA)

[TO4-3] **Rotor dynamics and cardiac fibrillation**
Masatoshi Yamazaki (Japan)

[TO4-4] **What can we learned about ST segment deviations from the simulation studies?**
Ljuba Bacharova (Slovakia)

14:50 ~ 15:15 Break

15:15 ~ 16:15 Topics 5 Assessment of ECG and Arrhythmias

Moderators: György Kozmann (Hungary)
Kenzo Hirao (Japan)

- [T05-1] **Management of silent AF**
Bulent Gorenek (Turkey)
- [T05-2] **Electrophysiological analysis of atypical fast-slow AVNRT**
Yoshiaki Kaneko (Japan)
- [T05-3] **Electrophysiological assessment to VT**
Martin Green (Canada)
- [T05-4] **The role of primary arrhythmias in the sudden death of young athletes**
Leonid Makarov (Russia)

Room 4 (1F [Room 104])

9:00 ~ 10:00 Oral Abstract Presentation 1 Clinical Studies 1

Moderators: Yochai Birnbaum (USA)
Naohiko Takahashi (Japan)

- [O1-1] **Keynote: Arrhythmic phenotype in Andersen-Tawil syndrome with p.Arg218Trp mutation in KCNJ2**
Malio F. Márquez (Mexico)
- [O1-2] **Gene-based β -blocker therapy for long-QT syndrome type 2: comparison between nadolol and propranolol**
Chisato Okamoto, Takeshi Aiba, Tsukasa Kamakura, Mitsuru Wada, Kenichiro Yamagata, Kohei Ishibashi, Koji Miyamoto, Satoshi Nagase, Takeshi Noda, Kengo Kusano (Japan)
- [O1-3] **Nonlinear parameters of heart rate variability and detection of high risk patients after myocardial infarction based on artificial intelligence analysis**
Branislav Milovanovic, Drasko Furundzic, Tatjana Gligorijevic, Dusica Jovanovic (Serbia)
- [O1-4] **Comparison the influences for autonomic tone between cryo-balloon and hot-balloon ablation for paroxysmal atrial fibrillation**
Satoshi Miyazawa, Seiji Fukamizu, Iwanari Kawamura, Rintaro Hojo, Harumizu Sakurada, Masayasu Hiraoka (Japan)
- [O1-5] **Evaluation of the mortality in patients with atrial fibrillation in a large electronic cohort: Clinical Outcomes in Digital Electrocardiography (CODE) study**
Gabriela Paixão, Paulo Gomes, Luis Gustavo Silva, Milton Ferreira, Derick Oliveira, Jamil Nascimento, Jessica Canazart, Leonardo Ribeiro, Milena Marcolino, Antonio Luiz Pinho Ribeiro (Brazil)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Oral Abstract Presentation 2 Clinical Studies 2

Moderators: Emanuela Teresa Locati (Italy)
Mikiko Nakagawa (Japan)

- [O2-1] **Keynote: Risk stratification using noninvasive markers**
Kenichi Hashimoto (Japan)
- [O2-2] **Analysis of changes of Syndecan-1 serum level in response to orthostatic stress during head-up tilt test in patients with vasovagal syncope**
Artur Z Pietrucha (Poland)

- [02-3] **Evaluation of the Impact of Vasovagal Syncope in Car-Drivers on the Safety of Car Traffic**
Irena Bzukala (Poland)
- [02-4] **Modulation of autonomic response and atrial conduction after cryoablation versus radiofrequency ablation for paroxysmal atrial fibrillation**
Mari Amino, Koichiro Yoshioka, Susumu Sakama, Kengo Ayabe, Daisuke Fujibayashi, Tadashi Hashida, Shigetaka Kanda, Teruhisa Tanabe, Yuji Ikari (Japan)
- [02-5] **Signal-averaged electrocardiograph can evaluate citrate response and vasovagal reflex during apheresis donation**
Kenji Nakai, Chiharu Taguchi, Midori Nakashima, Manabu Itoh, Toshimi Chiba (Japan)

11:10 ~ 11:20 Break

11:20 ~ 12:20 Oral Abstract Presentation 3 Basic Science 1

Moderators: Mark Potse (Netherlands)
Atsushi Sugiyama (Japan)

- [03-1] **Keynote: Human induced pluripotent stem cell models for inherited arrhythmias**
Takeru Makiyama (Japan)
- [03-2] **Model interpretation of BSPM based SCD risk markers**
György Kozmann, Tuboly G, Szathmáry V, Švehlíková J, Tyšler M (Hungary)
- [03-4] **Arrhythmogenicity of right ventricular outflow tract epicardium -A simulation study-**
Shin Inada, Takeshi Aiba, Ryo Haraguchi, Takashi Ashihara, Kengo Kusano, Wataru Shimizu, Takanori Ikeda, Kazuo Nakazawa (Japan)
- [03-5] **The accuracy of noninvasive localization of ectopic focus: Simulation study of the impact of focus position and used ECG leads**
Elena Deutsch, Milan Tysler, Jana Svehlikova, Peter Kneppo (Slovakia)

12:20 ~ 13:50 Break

13:50 ~ 14:50 Oral Abstract Presentation 4 Experimental Studies 1

Moderators: Peter Macfarlane (UK)
Itsuo Kodama (Japan)

- [04-1] **Keynote: Epicardial adipose tissue and AF**
Naohiko Takahashi (Japan)
- [04-2] **Effects of artemisinin on ventricular tachyarrhythmias induced by abrupt increases in wall stress in rat hearts: Comparison with verapamil**
Xue Xu, Yuansheng Liu, Dong Han (China)
- [04-4] **Quantification of the influence of 0.67 Hz high-pass monitoring filters on the magnitude of the spatial ventricular gradient**
Daniel Guldenring, Dewar Finlay, Raymond Bond, Alan Kennedy, James McLaughlin (UK)
- [04-5] **T wave alternans assessed in ambulatory Holter monitoring in patients with implantable cardioverter-defibrillator - Long term follow up**
Joanna Lewek (Poland)

14:50 ~ 15:00 Break

Moderators: Antonio Luiz Pinho Ribeiro (Brazil)
Takanori Ikeda (Japan)
Judges : Wojciech Zareba (USA), Peter Macfarlane (UK),
Rob MacLeod (USA), Milan Tysler (Slovakia)

- [YIA-1] **Mutational spectrum of the SCN5A gene in Brugada syndrome patients**
Anna Shestak, Siamak Saber, Leonid Makarov, Elena Zaklyazminskaya (Russia)
- [YIA-2] **Lyme carditis presenting with high-degree atrioventricular block: A systematic review**
Georgia Besant, Douglas Wan, Crystal Blakely, Pamela Branscombe, Laiden Suarez-Fuster, Damian Redfearn, Christopher Simpson, Hoshiar Abdollah, Benedict Glover, Adrian Baranchuk (Canada)
- [YIA-3] **Interatrial block predicts atrial fibrillation in patients with coronary and carotid artery disease**
Bryce Alexander, Adrian Baranchuk, Henri van Rooy, Sohaib Haseeb, Omar Ibrahim, Adrian Kuchtaruk, Wilma Hopman, Göksel Çinier, Marie-France Hetu, Terry Li, Amer Johri (Canada)
- [YIA-4] **Flecainide challenge in children with suspected Brugada syndrome**
David Cruz-Punti, Sergi Cesar-Diaz, Josep Brugada, Georgia Sarquella-Brugada (Spain)
- [YIA-5] **Detect the premature ventricular contraction using recurrent neural networks**
Xue Zhou, Xin Zhu, Keijiro Nakamura, Mahito Noro (Japan)
- [YIA-6] **New electrocardiographic marker as “notched P wave component” for recurrence of atrial fibrillation after electrical cardioversion**
Yuhi Fujimoto, Kenji Yodogawa, Masaaki Yashima, Yu-ki Iwasaki, Wataru Shimizu (Japan)

Room 5 (1F [Room 105])

- [P1-1] **Extended cardiac monitoring in patients with severe sleep apnea and no history of atrial fibrillation (The Reveal XT-SA Study)**
Cynthia Yeung, Doran Drew, Sharlene Hammond, Gwen Ewart, Damian Redfearn, Christopher Simpson, Hoshiar Abdollah, Benedict Glover and Adrian Baranchuk (Canada)
- [P1-2] **Short term cardiac monitoring of patients with severe sleep apnea does not allow for the prediction of atrial fibrillation**
Cynthia Yeung, Doran Drew, Sharlene Hammond, Gwen Ewart, Laiden Suarez-Fuster, Damian Redfearn, Christopher Simpson, Hoshiar Abdollah, Benedict Glover and Adrian Baranchuk (Canada)
- [P1-3] **Electrocardiographic characteristics and left ventricular ejection fraction improvement in patients with implantable cardioverter defibrillator**
Atsushi Suzuki, Yuko Matsui, Tsuyoshi Shiga, Shoda Morio and Nobuhisa Hagiwara (Japan)
- [P1-4] **The relationship between vascular tone, age and gender in hypertensive patients**
Ioana Cotet (Romania)
- [P1-5] **Short-term prognosis of patients with ventricular tachycardia/fibrillation: Three years' data from Tokyo CCU Network Registry**
Akira Ueno, Yoshinori Kobayashi, Ken Kato, Takeshi Sasaki, Seiji Fukamizu, Norikazu Watanabe, Kaoru Tanno, Takeshi Yamamoto, Ken Nagao and Morimasa Takayama (Japan)
- [P1-6] **T-wave amplitude in aVR for left ventricular dyssynchrony in patients with complete left bundle branch block**
Masato Shimizu, Mari Ohmori, Yuta Taomoto, Toshio Kaneda, Yosuke Yamakami, Munehiro Iiya, Hiroshi Shimada, Tomoko Manno, Hiroyuki Fujii, Makoto Suzuki, Noriyoshi Yamawake, Mitsuhiro Nishizaki, Harumizu Sakurada, Masayasu Hiraoka and Kenzo Hiraio (Japan)
- [P1-7] **Lower 24-hour Holter-derived heart rates suggest Brugada syndrome: Study of the family**
Paweł Matusik, Patrycja Matusik, Andrzej Maziarz and Jacek Lelakowski (Poland)
- [P1-8] **Cardiac adverse event in apheresis donation and significance of two-dimensional repolarization function diagram**
Kenji Nakai, Chiharu Taguchi, Midori Nakashima, Manabu Itoh and Toshimi Chiba (Japan)
- [P1-9] **Degree of remote monitoring of cardiac rhythm devices use by prefecture in Japan**
Eiichi Watanabe and Toshitake Takahashi (Japan)

- [P1-10] **Does the ‘normal’ QRS (duration<120ms) in heart failure patients differ to normals? : a study in the Japanese population**
Maki Ono, Akira Mizukami and Niraj Varma (United States)
- [P1-11] **Sex-specific QRS differences in Japanese heart failure patients with QRSD <120 ms**
Maki Ono, Akira Mizukami and Niraj Varma (United States)
- [P1-12] **Electrocardiographic evidence of atrial cardiomyopathy in mitral stenosis: A retrospective analysis in a Chinese cohort**
Ricko Wong, Pui Wong, Enpei Zhang, Calista Zhuo Yi Chan, Guangping Li, Wing Tak Wong, Yat Sun Chan, Martin Wong, Tong Liu, Adrian Baranchuk, Gregory Lip, Alex Lee and Gary Tse (Hong Kong Special Administrative Region of China)
- [P1-13] **Relationship between activity log stored in the cardiac rhythm device and prognosis**
Yoshihiro Nomura, Asami Fujiwara, Yuji Motoike, Masayuki Koshikawa, Tomohide Ichikawa, Masahide Harade, Yukio Ozaki and Eiichi Watanabe (Japan)
- [P1-14] **Silent ischemic strokes during cryoballoon ablation for the treatment of paroxysmal atrial fibrillation**
Asuka Nishimura, Mayumi kawai, Masahide Harada, Yoshihiro Nomura, Yukio Ozaki and Eiichi watanabe (Japan)
- [P1-15] **Prognosis in patients with history of inappropriate implantable cardioverter-defibrillator therapy**
Eiichi Watanabe, Okajima Katsunori, Akira Shimane, Tomoya Ozawa, Itsuro Morishima, Toru Asai, Masahiko Takagi, Atsunobu Kasai, Eitaro Fujii and Ken Kiyono (Japan)
- [P1-16] **The role of primary arrhythmias in the sudden death of young athletes center for syncope and cardiac arrhythmias for children and adolescents**
Leonid Makarov (Russian Federation)
- [P1-17] **The changes of QT interval in standing position – new criteria for diagnostic syndrome (LQTS).**
Vera Komoliatova, Leonid Makarov, Dmitrii Besportochinii, Alena Dmitrieva, Irina Kiseleva and Elena Zaklyazminskaya (Russian Federation)
- [P1-18] **Local activation delay exacerbates local J-ST elevation in the epicardium: electrophysiological substrate in Brugada syndrome**
Satoshi Nagase, Tsukasa Kamakura, Mitsuru Wada, Kenichiro Yamagata, Kohei Ishibashi, Yuko Y. Inoue, Koji Miyamoto, Takashi Noda, Takeshi Aiba and Kengo Kusano (Japan)
- [P1-19] **Permanent His-bundle pacing instead of biventricular pacing for cardiac resynchronization therapy: A case report**
Bartosz Skonieczny, Aleksandra Gajek, Jakub Adamowicz, Jacek Gajek and Agnieszka Sławuta (Poland)
- [P1-20] **The specific His-bundle pacing features in electrocardiogram.**
Jacek Zawadzki, Aleksandra Gajek, Jakub Adamowicz, Jacek Gajek, Agnieszka Sławuta, Piotr Strózik, Bartek Skonieczny and Agnieszka Szczepaniak (Poland)
- [P1-21] **Sex disparities on psychological responses among implantable cardioverter defibrillator patients with underlying heart diseases**
Anita Rahmawati, Akiko Chishaki, Mami Miyazono, Hiroyuki Sawatari, Nobuko Hashiguchi, Miyuki Tsuchihashi-Makaya, Mori Nakai, Harumizu Sakurada, Masao Takemoto, Yasushi Mukai, Shujiro Inoue and Hiroaki Chishaki (Japan)
- [P1-22] **Burden of device-detected atrial high-rate episode related to worsening heart failure events**
Ryo Nishinarita, Shinichi Niwano, Hidehira Fukaya, Jun Oikawa, Takeru Nabeta, Yuuki Arakawa, Ai Horiguchi, Hironori Nakamura, Jun Kishihara, Akira Sato and Junya Ako (Japan)
- [P1-23] **Ventricular conduction disturbances in patients with Chagas’ disease and clinical correlation**
Lêda Maria Braga, Antoinette Blackman and Luiz Fernando Junqueira Jr (Brazil)
- [P1-24] **Possible favorable marker of positive head-up tilt and negative T-wave alternans during test in suspected high risk reflex syncope patients**
Yuko Higashimura (Japan)
- [P1-25] **The influence of AV fistula percutaneous transluminal angioplasty on autonomic tone in end stage renal diseases patients**
Jau-Kang Huang (Taiwan)
- [P1-26] **The alteration of heart rate variability after coronary angiogram in normal healthy Taiwanese subjects**
Jau-Kang Huang (Taiwan)
- [P1-27] **The heart rate variability in healthy and coronary interventions in ischemic heart diseases**
Jau-Kang Huang (Taiwan)
- [P1-28] **The alteration of heart rate variability in percutaneous coronary intervention**
Shiang Yun Huang, Jau-Kang Huang, Chih-hsien Lee, Chien-Jung Chang, Ing-Fang Yang and Ten-Fang Yang (Taiwan)

Friday - June 29

8:00 Registration opens

Room 1 (2F [Int'l Conference Room])

9:00 ~ 10:00 Symposium 2 Assessment of Cardiac Arrhythmia Syndromes

Moderators: Peter Macfarlane (UK)
Tohru Ohe (Japan)

- [SY2-1] **Bayes syndrome: Interatrial block**
Adrian Baranchuk (Canada)
- [SY2-2] **Genotype-phenotype correlation in inherited arrhythmias**
Wataru Shimizu (Japan)
- [SY2-3] **Arrhythmology in the post-NGS era: Impressive achievements and unmet expectations**
Elena Zaklyazminskaya (Russia)
- [SY2-4] **T wave morphology changes specific to inherited arrhythmia syndromes**
Minoru Horie (Japan)

10:00 ~ 10:10 Break

10:10 ~ 11:25 Sponsored Session 4 Detection of Syncope and Arrhythmias

Co-sponsored with Japan Medtronic

Moderators: Pyotr Platonov (Sweden)
Kenzo Hirao (Japan)

- [SS4-1] **Detection and diagnosis of cardiogenic syncope**
Haruhiko Abe (Japan)
- [SS4-2] **Syncope and chronic inflammation**
Branislav Milovanovic (Serbia)
- [SS4-3] **Detection of arrhythmias using Reveal LINQ**
Yosuke Miwa (Japan)
- [SS4-4] **Tele ECG monitoring in HF patients during cardiac rehabilitation**
Ryszard Piotrowicz (Poland)
- [SS4-5] **Do pilots with vasovagal syncope fit to fly?**
Youichi Kobayashi (Japan)

11:25 ~ 11:35 Break

11:35 ~ 12:20 Memorial Lecture for Arthur J. Moss

Moderators: Niraj Varma (USA)
Jonathan S. Steinberg (USA)

- [AML-1] **Lessons from MADIT trials and challenges with ICD and CRT-D therapies**
Wojciech Zareba (USA)
- [AML-2] **The dilemmas posed by "silent AF"**
Harold L. Kennedy (USA)

12:20 ~ 12:40 Break

12:40 ~ 13:35 Luncheon Seminar 4 AF and Anticoagulant Therapy

Co-sponsored with Bayer Yakuhin

Moderators: Antonio Luiz Pinho Ribeiro (Brazil)
Hirotugu Atarashi (Japan)

- [LS4-1] **AF in athlete**
Iwona Cygankiewicz (Poland)
- [LS4-2] **The role of catheter ablation of AF in a progressive aging of society**
Kazuhiro Satomi (Japan)
- [LS4-3] **Japanese real world data of peri-procedural oral anticoagulation in atrial fibrillation patients undergoing catheter ablation; Result of the JACRE registry**
Koichi Inoue (Japan)

13:35 ~ 13:50 Break

13:50 ~ 15:05 Sponsored Session 5 Implantable Devices and Arrhythmias

Co-sponsored with Abbott

Moderators: Larisa Tereshchenko (USA)
Yoshinori Kobayashi (Japan)

- [SS5-1] **Indication of ICD and CRT-D**
Niraj Varma (USA)
- [SS5-2] **Current understanding of the indication of wearable cardioverter defibrillator**
Shinichi Niwano (Japan)
- [SS5-3] **Device-detected subclinical atrial tachyarrhythmias**
Bulent Gorenek (Turkey)
- [SS5-4] **Management of electrical storm after ICD implantation**
Takashi Kurita (Japan)
- [SS5-5] **Conduction abnormalities following transcatheter aortic valve replacement**
Paul Malik (Canada)

15:05 ~ 15:15 Break

15:15 ~ 16:30 Sponsored Session 6 Assessment and Treatment of AF

Co-sponsored with Nippon Boehringer Ingelheim

Moderators: Thomas Klingeneben (Germany)
Naohiko Takahashi (Japan)

- [SS6-1] **NOACs in the real world: Insights of the GLORIA-AF registry**
Sergio Dubner (Argentina)
- [SS6-2] **Management of AF using ablation procedure**
Kaoru Tanno (Japan)
- [SS6-3] **ECG characteristics of AF in risk stratification and outcome**
Pyotr Platonov (Sweden)

[SS6-4] **Antithrombotic therapy in preventing ischemic stroke**
Seiji Fukamizu (Japan)

[SS6-5] **Real-time mapping and catheter ablation for non-paroxysmal AF**
Takashi Ashihara (Japan)

16:30 ~ 16:40 Break

16:40 ~ 17:15 **ISHNE General Assembly**

Moderator: Niraj Varma (USA)

ISHNE - The Best Abstract (Junior) Award

17:30 ~ 21:30 Social Events Excursion and Dinner

Room 3 (1F [Room 103])

9:00 ~ 10:00 **Topics 6 Novel Application for Arrhythmia Management**

Moderators: Wojciech Zareba (USA)
Bonpei Takase (Japan)

[TO6-1] **Point of care testing (POCT) as a tool for the management of heart disease**
Yuji Kasamaki (Japan)

[TO6-2] **Interactive 12-lead ECG at the point of care**
S. Suave Lobodzinski (USA)

[TO6-3] **Body surface two-dimensional spectral map to detect arrhythmias**
Kenji Nakai (Japan)

[TO6-4] **ECG and electronic cohorts for big data**
Antonio Luiz Pinho Ribeiro (Brazil)

10:00 ~ 10:10 Break

10:10 ~ 11:10 **Topics 7 ECG Analysis in Various Population**

Moderators: Iwona Cygankiewicz (Poland)
Yoshihiro Akashi (Japan)

[TO7-1] **ECG analysis of arrhythmias in athletes**
Jose Gant Lopez (Argentina)

[TO7-2] **Secret of healthy aging: longitudinal patterns of ECG changes over 25 years**
Larisa Tereshchenko (USA)

[TO7-3] **ECG analysis in women**
Malgorzata Kurpesa (Poland)

[TO7-4] **SMART-MI: A novel ECG-based approach to personalized post-MI**
Alex Bauer (Germany)

11:10 ~ 11:20 Break

11:20 ~ 12:20 Topics 8 Basic Science

Moderators: Ljuba Bacharova (Slovakia)
Itsuo Kodama (Japan)

- [TO8-1] **ECG imaging and computational ECG**
Rob MacLeod (USA)
- [TO8-2] **Biomedical engineering approach for spiral wave control**
Ichiro Sakuma (Japan)
- [TO8-3] **The lead field: modern applications of a classic ...**
Mark Potse (Netherlands)
- [TO8-4] **Arrhythmogenicity of ventricular arrhythmias**
Masaomi Chinushi (Japan)

12:20 ~ 12:40 Break

12:40 ~ 13:35 Luncheon Seminar 5 Management of Cardiogenic Stroke

Co-sponsored with ONO PHARMACEUTICAL

Moderators: Kjell Nikus (Finland)
Wataru Shimizu (Japan)

- [LS5-1] **Left ventricular Hypertrophy and AF**
Nelson Samesima (Brazil)
- [LS5-2] **Current strategies of antiarrhythmic drug therapy for paroxysmal AF**
Takashi Komatsu (Japan)
- [LS5-3] **Pharmacological antiarrhythmic therapy in patients of J-CARAF study**
Yuji Murakawa (Japan)

13:35 ~ 13:50 Break

13:50 ~ 14:50 Topics 9 Risk Assessment Using Novel Indices

Moderators: Ryszard Piotrowicz (Poland)
Pavin Dorostkar (USA)

- [TO9-1] **Challenge and future of arrhythmia risk stratification in non-ischemic DCM**
Thomas Klungenheben (Germany)
- [TO9-2] **Risk assessment of High resolution ECG**
Kenji Yodogawa (Japan)
- [TO9-3] **The significance of artificial intelligence in assessment of cardiovascular risk**
Branislav Milovanovic (Serbia)
- [TO9-4] **Risk assessment evaluated by late potential using high-resolution ambulatory ECG**
Koichiro Yoshioka

14:50 ~ 15:15 Break

15:15 ~ 16:15 Topics 10 Ambulatory ECG Monitoring and Arrhythmias

Moderators: Yochai Birnbaum (USA)
Leonid Makarov (Russia)

- [TO10-1] **Very long-term cardiac monitoring - Opportunities and challenges**
S. Suave Lobodzinski (USA)
- [TO10-2] **Heart beat variability estimated by microwave reflectometry in noncontact clothing condition**
Toru Maruyama (Japan)
- [TO10-3] **Prolonged ECG monitoring from Holter to smartphone**
Emanuela Teresa Locati (Italy)
- [TO10-4] **Evaluation of fetal cardiac rhythm abnormalities?**
Parvin Dorostkar (USA)

Room 4 (1F [Room 104])

9:00 ~ 10:00 Oral Abstract Presentation 5 Clinical Studies 3

Moderators: Carlos Alberto Pastore (Brazil)
Hirotugu Atarashi (Japan)

- [05-1] **Keynote: Electrocardiography in Andersen-Tawil syndrome**
Manlio F. Márquez (Mexico)
- [05-2] **The combined evaluation of ambulatory-based late potentials and heart rate turbulence to predict ventricular arrhythmias in patients with postmyocardial infarction**
Kenichi Hashimoto, Bonpei Takase, Mari Amino, Koichi Yoshioka, Yuji Kasamaki, Toshio Kinoshita, Takanori Ikeda (Japan)
- [05-3] **Analysis of serum of selected adhesion molecules in response to orthostatic stress during head-up tilt test in patients with vasovagal syncope.**
Artur Z. Pietrucha (Poland)
- [05-4] **Evaluation of the Usefulness of Feedback Tilt Training in the Treatment of Patients With Vasovagal Syncope.**
Irena Bzukala (Poland)
- [05-5] **Early detection of sudden infant death syndrome: Systematic neonatal ECG, genetic study and familial cascade screening.**
Georgia Sarquella-Brugada, Dolores Zambrano, Sergi Cesar-Diaz, Victoria Fiol, Anna Fernandez-Falgueras, Ramon Brugada, Josep Brugada, Oscar Campuzano (Spain)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Oral Abstract Presentation 6 Clinical Studies 4

Moderators: Bulent Gorenek (Turkey)
Hiroto Takeda (Japan)

- [06-1] **Keynote: Automatic diagnosis of ECG: Problem and its solution**
Takao Katoh (Japan)
- [06-2] **Response of J point elevation to cardio-active agents and risk of ventricular fibrillation in patients with early repolarization syndrome**
Yumi Ishii, Tetsuji Shinohara, Hidekazu Kondo, Akira Fukui, Tomomi Tanino, Taisuke Harada, Kazuki Mitarai, Kyoko Kawano, Seiichiro Yoshimura, Hidefumi Akioka, Yasushi Teshima, Kunio Yufu, Mikiko Nakagawa, Naohiko Takahashi (Japan)

[06-4] **Do drugs that prolong the QT interval also alter the spatial QRST angle?**

Effects of rac-sotalol and moxifloxacin.

Gopi Panicker, Pramod Kadam, Elaine Clark, Snehal Kothari, Nenad Sarapa, Dilip Karnad, Peter Macfarlane (UK)

[06-5] **Changes of brain desaturation during head-up tilt test in teenagers with vasovagal syncope**

Beata J. Pietrucha (Poland)

11:10 ~ 11:20 Break

11:20 ~ 12:20 Oral Abstract Presentation 7 Case Reports 1

Moderators: Martin Green (Canada)

Koji Azegami (Japan)

[07-1] **Keynote: Clinical and electrophysiological characteristics in patients with bundle branch reentrant VT**

Seiji Fukamizu (Japan)

[07-2] **Assessment of heart variability in patients with Anderson-Fabry disease**

José Sobral Neto, Antoinette Blackman, Lúcia Cristina Sobral, Sandra Marques e Silva, Mônica Delgado (Brazil)

[07-3] **Non-contact electrical assessment on cardiac autonomic activity in neurally mediated syncope**

Bonpei Takase, Kenichi Hashimoto, Guanghao Sun, Takemi Matsui (Japan)

[07-4] **A case of catecholaminergic polymorphic ventricular tachycardia diagnosed as having long QT syndrome 25 years ago**

Kyoko Kawano, Akira Fukui, Tetsuji Shinohara, Hidefumi Akioka, Yasushi Teshima, Kunio Yufu, Mikiko Nakagawa, Naohiko Takahashi, Seiko Ohno, Minoru Horie (Japan)

[07-5] **Takotsubo cardiomyopathy with J-waves induced by accidental hypothermia**

Satoshi Iwamiya, Takakatsu Yoshitake, Yasuaki Hada, Hironori Sato, Yuji Konishi, Kaoru Sakurai, Koji Azegami (Japan)

12:20 ~ 13:50 Break

13:50 ~ 14:50 Oral Abstract Presentation 8 Experimental Studies 2

Moderators: Malgorzata Sobieszczanska (Poland)

Kan Takayanagi (Japan)

[08-1] **Keynote: Mechanism of electrical defibrillation: current status and future perspective**

Nitaro Shibata (Japan)

[08-2] **Role of late sodium current in experimental torsade de pointes**

Masatoshi Yamazaki, Yukiomi Tsuji, Ryoko Niwa, Naoki Tomii, Tatsuhiko Arafune, Haruo Honjo, Dobromir Dobrev, Stanley Nattel, Itsuo Kodama, Ichiro Sakuma, Naomasa Makita (Japan)

[08-4] **Analysis of heart rate variability with the help of Welch periodogram in Indian Young male adults based on body type/physique**

Vishwajeet Vishwajeet, Dilbag Singh (India)

[08-5] **Wearable patch cardiac monitors. Is Holter obsolete?**

S. Suave Lobodzinski (USA)

14:50 ~ 15:00 Break

15:15 ~ 16:30 ISHNE - The Best Abstract (Junior Investigator) Award Competition

Moderators: Ryszard Piotrowicz (Poland)
 Malgorzata Kurpesa (Poland)
 Judges: Niraj Varma (USA), Jonathan S. Steinberg (USA),
 Iwona Cygankiewicz (Poland), Koichiro Yoshioka (Japan)

- [BAA-1] **Relation of the Brugada phenocopy to hyperkalemia (From the International Registry on Brugada Phenocopy)**
 Grace Xu, Byron Gottschalk, Daniel Anselm, David Benditt, Ankit Maheshwari, Shiva Sreenivasan, Raed Abu Shama, Gregory Dendramis, Héctor Barajas-Martínez, José Manuel Rubio Campal, Sam Aznaurov, Adrian Baranchuk (Canada)
- [BAA-2] **Diagnosis and course of a case of fetal accelerated idioventricular rhythm using tissue Doppler imaging**
 Matthew Ambrose, Parvin Dorostkar (USA)
- [BAA-3] **Long-term follow-up of arrhythmogenic right ventricular cardiomyopathy patients with and without Brugada syndrome type electrocardiogram**
 Nobuhiko Ueda, Satoshi Nagase, Tsukasa Kamakura, Mitsuru Wada, Kenichiro Yamagata, Kohei Ishibashi, Yuko Inoue, Koji Miyamoto, Takashi Noda, Takeshi Aiba, Kengo Kusano (Japan)
- [BAA-4] **The magic of lidocaine load in extreme long QT with 2:1 functional AV block**
 Georgia Sarquella-Brugada, Sergi Cesar-Diaz, Dolores Zambrano, Xavit Tarrado, Olga Gomez, Oscar Campuzano, Ramon Brugada, Josep Brugada (Spain)
- [BAA-5] **Serial electrocardiographic changes after transcatheter closure of atrial septal defects**
 Minjeong Kang, Ichiro Sakamoto, Hiroyuki Sawatari, Tomoaki Kouho, Keiko Yamasaki, Shintaro Umemoto, Kohtaro Abe, Kenichi Hiasa, Tomomi Ide, Mari Nishizaka, Kenichiro Yamamura, Yoshihiko Kodama, Shiro Ishikawa, Ryoji Shinbara, Hiroaki Chishaki, Hiroyuki Tsutsui, Akiko Chishaki (Korea)

Room 5 (1F [Room 105])

9:00 ~ 16:30 Poster Abstract Presentation 2

- [P2-1] **The evaluation of autonomic tone in Coronary arteriogram and percutaneous coronary intervention**
 Shiang Yun Huang, Jau-Kang Huang, Chih-hsien Lee, Chien-Jung Chang, Ing-Fang Yang and Ten-Fang Yang (Taiwan)
- [P2-2] **Different quality of life and psychological tendency of implantable cardioverter defibrillator patients with or without organic heart diseases**
 Mami Miyazono, Akiko Chishaki, Aya Oho, Anita Rahmawati, Miyuki Tsuchihashi-Makaya, Hiroyuki Sawatari, Nobuko Hashiguchi, Harumizu Sakurada, Masao Takemoto, Mori Nakai, Yasushi Mukai, Shujirou Inoue and Hiroaki Chishaki (Japan)
- [P2-3] **Age- and obesity-related epicardial adipose tissue accumulation remodels autonomic balance in paroxysmal atrial fibrillation patients - Analysis of heart rate variability -**
 Jun Takeda, Masahide Harada, Tomohide Ichikawa, Yoshihiro Nomura, Yuji Motoike, Masayuki Koshikawa, Eiichi Watanabe and Yukio Ozaki (Japan)
- [P2-4] **Two-dimensional cardiac excitation models incorporating remodeling-associated arrhythmogenic cation channel TRPM4**
 Shen Yanghua, Xin Zhu, Yaopeng Hu and Ryuichi Inoue (Japan)
- [P2-5] **Left atrial volume and voltage in patients with atrial fibrillation assessed by PentaRay catheter**
 Takahiro Furuya (Japan)
- [P2-6] **QRS notch in lateral leads predicts good response to cardiac resynchronization therapy in patients with middle QRS width**
 Naoaki Hashimoto, Hiro Yamasaki, Yasuaki Tsumagari, Yuta Okabe, Yuichi Hanaki, Hiroaki Watanabe, Yuki Komatsu, Takeshi Machino, Yukio Sekiguchi, Akihiko Nogami and Kazutaka Aonuma (Japan)
- [P2-7] **Comparison of magnetic resonance imaging vs echocardiogram as gold standard for diagnosing left ventricular enlargement in atrial fibrillation patients**
 Nelson Samesima, Pedro Augusto Moraes, Tatyane Saito, Horacio Pereira Filho, Mirella Facin, Bruna Madaloso, Wilson Mathias Jr., Cesar Nomura, Lívio Rios, Stephanie Beeby and Carlos Eduardo Rochitte (Brazil)
- [P2-8] **Impact of cardiac autonomic neuropathy on clinical outcomes of patients with acute coronary syndromes**
 Andrzej Bissinger (Poland)

- [P2-9] **Risk stratification with non-invasive techniques for prediction of cardiac mortality in patients with ischemic heart disease.**
Toshio Kinoshita, Atsuko Abe, Shintaro Yao, Kensuke Yano, Katsuya Akitsu, Masaya Shinohara, Hitomi Yuzawa, Takeya Suzuki, Hideyuki Sato, Tadashi Fujino and Takanori Ikeda (Japan)
- [P2-10] **Left arm – V2 ECG lead misplacement by colour: A largely unknown entity which can easily be misdiagnosed as a pulmonary embolism.**
Richard Lynch, Louise Ballesty, Sam Kuan and Yarlini Ponnambolam (Ireland)
- [P2-11] **Identification of significant errors in recording ECGs - Houston we have a problem!**
Richard Lynch (Ireland)
- [P2-12] **Sick sinus syndrome in a patient with hypertrophic cardiomyopathy**
Izabela Poddebska, Pawel Ptaszynski, Iwona Cygankiewicz and Jerzy Wranicz (Poland)
- [P2-13] **Effect of electrocardiogram low-pass filter on QRS wave amplitude**
Jiro Suto, Takashi Takayanagi and Satoshi Yasukouchi (Japan)
- [P2-14] **A difference between the depolarization time and QRS duration in heart failure patients with LBBB: A simulation study.**
Ljuba Bacharova, Vavrinec Szathmary, Anton Mateasik, Jana Svehlikova and Milan Tysler (Slovakia)
- [P2-15] **Heart rate variability affects internally and externally operative attention**
Mukesh Kumar, Dilbag Singh and K K Deepak (India)
- [P2-19] **Electrocardiographic change in V1, V5 and V6 leads in patients with pulmonary hypertension who are receiving effective treatment**
Kazuya Otsu, Satoshi Sakai, Taizou Kimura, Takashi Miyauchi, Satoshi Homma and Kazutaka Aonuma (Japan)
- [P2-20] **“Real live” preparticipation screening in amateur ultramarathon runners.**
Krzysztof Wranicz, Wojciech Stolarczyk, Agnieszka Stasiak-Maszke, Marcin Maszke, Marta Krajka, Dagmara Stolarczyk, Izabela Poddebska, Krzysztof Kaczmarek, Pawel Ptaszynski, Jerzy Wranicz and Iwona Cygankiewicz (Poland)
- [P2-21] **ECG and AECG Holter recordings in ultramaraton runners**
Izabela Poddebska, Krzysztof Wranicz, Joanna Lewek, Agnieszka Stasiak-Maszke, Wojciech Stolarczyk, Krzysztof Kaczmarek, Pawel Ptaszynski, Jerzy Wranicz and Iwona Cygankiewicz (Poland)
- [P2-22] **Dubois vs. Fré methodology for ECG acquisition in thoroughbred equines**
Cássia Costa, Carlos Alberto Pastore and Nelson Samesima (Brazil)
- [P2-23] **Evaluation of tromboxan B2 serum concentration changes during head-up tilt test in patients with vasovagal syncope.**
Artur Z Pietrucha (Poland)
- [P2-24] **Identifying respiration effect on cardiovascular coupling using transfer entropy**
Helen Mary M C, Dilbag Singh and KK DEEPAK (India)
- [P2-25] **Neonatal sepsis prediction- mobile application as a potential solution.**
Jyoti Thakur, Sarwan Kumar and Roop Pahuja (India)
- [P2-26] **IoT based E-health monitoring platform for mass health care**
Harminder Kaur and Sarwan Kumar (India)
- [P2-27] **Ectopic cycle length estimation from the distribution patterns of ventricular bigeminy and trigeminy with variable coupling interval**
Kan Takayanagi, Shiro Nakahara, Yuiti Hori and Isao Taguchi (Japan)
- [P2-28] **Assessment of QT Interval in ventricular conduction defects: Validation of a new formula**
Miguel Ángel Cobos Gil (Spain)
- [P2-29] **Vernakalant decreases f-wave rate and amplitude in a porcine atrial fibrillation model**
Ian Azarov, Jonas G. Diness, Jonas Carlson, Jeppe Kirchhoff, Bo Hjorth Bentzen, Pyotr Platonov (Sweden)

Saturday - June 30

8:00 Registration opens

Room 1 (2F [Int'l Conference Room])

9:00 ~ 10:00 Symposium 3 ECG Assessment and Cardiac Disorders

Moderators: Harold L. Kennedy (USA)
Akihiko Shimizu (Japan)

- [SY3-1] **Impact of the input ECG and geometry data on noninvasive localization of ectopic ventricular activity**
Milan Tysler (Slovakia)
- [SY3-2] **Effects of cigarette smoke on Holter ECG in patients with arterial hypertension**
Malgorzata Sobieszczanska (Poland)
- [SY3-3] **ECG in the diagnosis of ARVC**
Pyotr Platonov (Sweden)
- [SY3-4] **Arrhythmogenic changes after carbon-ion radiotherapy in patients with mediastinum cancer.**
Mari Amino (Japan)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Symposium 4 Novel or Alternative ECG Techniques

Moderators: Ljuba Bacharova (Slovakia)
Mitsuhiro Nishizaki (Japan)

- [SY4-1] **Anterior STEMI- new classification based on cMR correlation**
Yochai Birnbaum (USA)
- [SY4-2] **A new high sensitivity ECG for detection of diastolic dysfunction**
Peter Macfarlane (UK)
- [SY4-3] **Novel cardiac monitoring technologies**
Jean-Philippe Couderc (USA)
- [SY4-4] **Vectorcardiography in the ablation of Brugada syndrome**
Nelson Samesima (Brazil)

11:10 ~ 11:20 Break

11:20 ~ 11:55 ISE General Assembly

Moderator: Adrian Baranchuk (Canada)

ISE - Young Investigator Award

ISE - ECG Bayés Award

Room 2 (2F [Room 201])

10:25 ~ 11:10 Education The ISHNE ECG University Course

Moderators: Teruhisa Tanabe (Japan)
Takanori Ikeda (Japan)

- [EP-1] **Welcome words and introduction**
Niraj Varma (USA)
- [EP-2] **Course idea, objectives, goals and opportunities**
Jonathan S. Steinberg (USA)
- [EP-3] **ISHNE ECG University version1 (V1): Logistics, registration, examples**
Sergio Dubner (Argentina)
- [EP-4] **Future directions: ISHNE ECG University version 2 (V2)**
Adrian Baranchuk (Canada)

Room 3 (1F [Room 103])

9:00 ~ 10:00 Topics 11 Catheter Ablation and Implantable Devices

Moderators: Jonathan S. Steinberg (USA)
Masaomi Chinushi (Japan)

- [TO11-1] **Nonpharmacological treatment for electrical storm of Brugada Syndrome**
Kazutaka Aonuma (Japan)
- [TO11-2] **Differences between Western and Japanese guidelines regarding ablation and devices**
Takashi Kurita (Japan)
- [TO11-3] **Relation between defibrillation threshold and clinical outcomes in ICD recipients**
Mahito Noro (Japan)
- [TO11-4] **Valve implantation and techniques to lower pacemaker rates**
Paul Malik (Canada)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Topics 12 Inherited Cardiac Disorders and ECG

Moderators: Carlos Alberto Pastore (Brazil)
Kaoru Sugi (Japan)

- [TO12-1] **Assessment of inherited arrhythmia ECG**
Martin Green (Canada)
- [TO12-2] **Identification of high-risk Brugada patients**
Kengo Kusano (Japan)
- [TO12-3] **Double mutations in the sarcomeric genes: is it a risk factor for HCM patients?**
Elena Zaklyazminskaya (Russia)
- [TO12-4] **Catecholaminergic polymorphic ventricular tachycardia: Update**
Naokata Sumitomo (Japan)

Room 4 (1F [Room 104])

9:00 ~ 10:00 Oral Abstract Presentation 9 Clinical Studies 5

Moderators: Jean-Philippe Couderc (USA)
Masaaki Yashima (Japan)

- [09-1] **Keynote: Assessment of arrhythmias using realtime mapping**
Takashi Ashihara (Japan)
- [09-2] **Advanced interatrial block in patients with paroxysmal atrial fibrillation before and after catheter ablation**
Elena Blinova, Tamara Sakhnova, Oleg Sapelnikov, Dmitriy Cherkashin, Renat Akchurin (Russia)
- [09-3] **Prognostic implication of selvester QRS scoring in atrial fibrillation patients with HFrEF undergoing catheter ablation**
Yoshihiro Nomura, Masahide Harada, Fumihiko Kitagawa, Yuji Motoike, Masayuki Koshikawa, Tomohide Ichikawa, Eiichi Watanabe, Yukio Ozaki (Japan)
- [09-4] **Interval QT during Holter monitoring in patients with long QT syndrome**
Leonid Makarov, Vera Komoliatova, Dima Bespotochnii, Alena Dmitreeva, Irina Kiseleva, Elena Zaklyazminskay (Russia)
- [09-5] **A low-cost version of the Fridericia's formula for QT correction**
Miguel Ángel Cobos Gil (Spain)

10:00 ~ 10:10 Break

10:10 ~ 11:10 Oral Abstract Presentation 10 Clinical Studies 6

Moderators: Alex Bauer (Germany)
Hiroto Takeda (Japan)

- [010-1] **Keynote: Assessment of QT interval variation and QT memory**
Marcio Sturmer (Canada)
- [010-2] **Predictors for new-onset atrial fibrillation in general population on the special health checkups of national health insurance (TAMA MED Project-AF)**
Eitaro Kodani, Tomohiro Kaneko, Hitomi Fujii, Hiroyuki Nakamura, Hajime Sasabe, Yutaka Tamura, Wataru Shimizu (Japan)
- [010-3] **Spatial QRS-T angle and ventricular gradient in different forms of pre-capillary pulmonary hypertension**
Tamara Sakhnova, Elena Blinova, Olga Arkhipova, Marina Saidova, Tamila Martyniuk, Irina Chazova, Vladimir Trunov, Eduard Aidu (Russia)
- [010-4] **Intelligent system for personalized training coordination and risk management**
György Zoltán Kozmann, Tamas Nagy, Ákos Nagy, Balázs Nagy (Hungary)
- [010-5] **Relationship between Brugada phenocopy and myocardial ischemia: results from the international registry on Brugada phenocopy**
Grace Xu, Byron Gottschalk, Andrés Pérez-Riera, Raimundo Barbosa-Barros, Gregory Dendramis, Aldo Carrizo, Sahil Agrawal, Antonio Bayés de Luna, Adrian Baranchuk(Canada)