

# Program

*Thursday, 30 July*

## Autonomic tone and Arrhythmia

**Chairs Hiroshi Inoue**

*Saiseikai Toyama Hospital, Toyama, Japan*

**Naohiko Takahashi**

*Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

### SPP1 Autonomic tone and molecular electrophysiology

**Katsushige Ono**

*Department of Pathophysiology, Oita University School of Medicine, Oita, Japan*

### SPP2 Autonomic nerve activity and ventricular tachyarrhythmias associated with structural heart diseases

**Masaomi Chinushi<sup>1</sup>, Kenichi Iijima<sup>2</sup>, Akinori Sato<sup>2</sup>, Daisuke Izumi<sup>2</sup>, Osamu Saitoh<sup>1</sup>, Hiroshi Furushima<sup>3</sup>, Tohru Minamino<sup>2</sup>**

*<sup>1</sup>Graduate School of Health Sciences, Niigata University School of Medicine, Niigata, Japan, <sup>2</sup>Cardiovascular Biology and Medicine Niigata University School of Medicine, Niigata, Japan, <sup>3</sup>Furushima Clinic, Niigata, Japan*

### SPP3 Role of Autonomic Nervous Activity in Patients with Idiopathic Ventricular Fibrillation and Long QT Syndrome

**Koichi Mizumaki<sup>1</sup>, Kunihiro Nishida<sup>2</sup>, Naoya Kataoka<sup>2</sup>, Yosuke Nakatani<sup>2</sup>, Tamotsu Sakamoto<sup>2</sup>, Yoshiaki Yamaguchi<sup>2</sup>, Hiroshi Inoue<sup>3</sup>**

*<sup>1</sup>Clinical Research and Ethics Center, University of Toyama, Toyama, Japan, <sup>2</sup>Second Department of Internal Medicine, Graduate School of Medicine, University of Toyama, Toyama, Japan, <sup>3</sup>Saiseikai Toyama Hospital, Toyama, Japan*

### SPP4 Atrial Fibrillation and Autonomic Function: Significance of GP Ablation

**Kenzo Hirao**

*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

### SPP5 Pathophysiological Mechanisms on the Relationship Between Autonomic Nervous System and Arrhythmia in Obstructive Sleep Apnea Syndrome

**Yu-ki Iwasaki**

*The Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan*

### SPP6 Prevention of Sudden Cardiac Death Using $\beta$ Blockers

**Takanori Ikeda**

*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*

*Thursday, 30 July*

**Room 1** 10:30-11:30 Kazuo Yamada Invited Lecture [KYL]

## **Autonomic neuromodulation for refractory heart failure and arrhythmias**

**Chair** **Youichi Kobayashi**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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**KYL** **Autonomic neuromodulation for refractory heart failure and arrhythmias**

**Kenji Sunagawa**

*Department of Therapeutic Regulation of Cardiovascular Homeostasis, Center for Disruptive Cardiovascular Medicine, Kyushu University, Fukuoka, Japan*

**Room 1** 11:50-12:50 Luncheon Seminar13 [LS13]

## **Impacts of NOACs Introduction on the Clinical Treatment and Outcomes of NVAF Patient in the Cardiovascular Institute**

**Chair** Ken Okumura

*Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan*

**LS13-1** **Impacts of NOACs Introduction on the Clinical Treatment and Outcomes of NVAF Patient in the Cardiovascular Institute**

**Takeshi Yamashita**

*The Cardiovascular Institute, Tokyo, Japan*

*(DAIICHI SANKYO COMPANY, LIMITED)*

*Thursday, 30 July*

**Room 1** 14:10-15:10 Koshichiro Hirosawa Memorial Lecture [KHL]

## **Cardiomyopathies Up-to-date: Lesson from the Patients and for the Future**

**Chair Satoshi Ogawa**

*International University of Health and Welfare Mita Hospital, Tokyo, Japan*

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**KHL Cardiomyopathies Up-to-date: Lesson from the Patients and for the Future**

**Michiaki Hiroe**

*The Department of Cardiology, National Center for Global Health and Medicine, Tokyo, Japan*

## Patient Management of Pain and Anxiety during Electrophysiological Procedures as Device Implantation or Catheter Ablation

**Chairs** Yoshimi Inagaki

*Department of Anesthesiology and Critical Care Medicine, Tottori University Faculty of Medicine, Tottori, Japan*

Yasushi Miyauchi

*Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan*

### SP6-1 Key Note Lecture: What is sedation?

Yoshimi Inagaki

*Department of Anesthesiology and Critical Care Medicine, Tottori University Faculty of Medicine, Tottori, Japan*

### SP6-2 Balance between patient immobility and risk for apnea during intraprocedural sedation

Akinori Sairaku<sup>1</sup>, Yukihiro Yoshida<sup>2</sup>, Yukiko Nakano<sup>1</sup>, Yasuki Kihara<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Hiroshima University, Hiroshima, Japan, <sup>2</sup>Department of Cardiology, Nagoya Daini Red Cross Hospital, Aichi, Japan*

### SP6-3 Deep Sedation Using Propofol under Meticulous Respiratory Management for NavX-guided Atrial Fibrillation Ablation

Takanori Yamaguchi<sup>1</sup>, Takeshi Tsuchiya<sup>1</sup>, Akira Fukui<sup>1</sup>, Yasutsugu Nagamoto<sup>2</sup>, Chie Yasuoka<sup>3</sup>, Naohiko Takahashi<sup>4</sup>

*<sup>1</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>2</sup>Saga-ken Medical Centre Koseikan, Saga, Japan, <sup>3</sup>Omura Municipal Hospital Cardiovascular Center, Nagasaki, Japan, <sup>4</sup>Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

### SP6-4 Airway support with pediatric intubation tube in adult atrial fibrillation patients: A novel method to prevent heart movement during catheter ablation under continuous-deep-sedation

Masateru Takigawa<sup>1</sup>, Atsushi Takahashi<sup>1</sup>, Taishi Kuwahara<sup>1</sup>, Kenji Okubo<sup>1</sup>, Yasuaki Tanaka<sup>1</sup>, Kazuya Yamao<sup>1</sup>, Emiko Nakashima<sup>1</sup>, Jun Nakajima<sup>1</sup>, Katsumasa Takagi<sup>1</sup>, Mitsuaki Isobe<sup>2</sup>, Kenzo Hirao<sup>3</sup>

*<sup>1</sup>Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, <sup>2</sup>Department of Cardiology, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

### SP6-5 Simple Minimal Sedation for Catheter Ablation of Atrial Fibrillation Using Hydroxyzine Pamoate and Pentazocine

Shinsuke Miyazaki, Makoto Araki, Noboru Ichihara, Takamitsu Takagi, Jin Iwasawa, Akio Kuroi, Hiroaki Nakamura, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka

*Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan*

# Thursday, 30 July

Room 1 18:00-21:00 Educational Course2 [EC2]

## コメディカルのための心電図レッスン～基本から理解する～

座長 井上 博

富山県済生会富山病院

池田隆徳

東邦大学医学部内科学講座循環器内科学分野

### EC2-1 12誘導心電図の基本的な読み方

中野由紀子

広島大学病院循環器内科

### EC2-2 ホルター心電図を用いた心電図診断と危険な不整脈のスクリーニング

高木雅彦

大阪市立大学大学院医学研究科循環器内科学

### EC2-3 ペースメーカー植込み例における心電図の理解

吉田明弘

北幡磨総合医療センター循環器内科

(フクダ電子株式会社)

## Total Management of Catheter Ablation for Persistent Atrial Fibrillation

**Chairs Kazutaka Aonuma**

*Cardiovascular Division, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan*

**Kazuo Matsumoto**

*Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan*

### PD4-1 Low Amplitude Fibrillatory Waves on the Surface ECG Predicts Non-responders of Ablation in Patients with Long-standing Persistent Atrial Fibrillation

**Yoshiyuki Hama<sup>1</sup>, Yuji Matsudo<sup>1</sup>, Taishi Kuwahara<sup>2</sup>, Noriko Eguchi<sup>1</sup>, Haruka Fujimaki<sup>1</sup>, Ikuto Terabayashi<sup>1</sup>, Kohei Kamishita<sup>1</sup>, Bi Katsu<sup>1</sup>, Shuzo Tanaka<sup>1</sup>, Norimasa Tonoike<sup>1</sup>, Kyokushi Hou<sup>1</sup>, Tai Sekine<sup>1</sup>, Masashi Yamamoto<sup>1</sup>, Toshiharu Himi<sup>1</sup>**

*<sup>1</sup>Division of Cardiology, Kimitsu Chuo Hospital, Chiba, Japan, <sup>2</sup>Cardiovascular Center, Yokosuka Kyousai Hospital, Kanagawa, Japan*

### PD4-2 Selection of optimal strategy and candidates amenable to catheter ablation for long-standing persistent atrial fibrillation according to the response of electrical cardioversion

**Atsushi Takahashi<sup>1</sup>, Taishi Kuwahara<sup>1</sup>, Katsumasa Takagi<sup>1</sup>, Kenji Okubo<sup>1</sup>, Yasuyuki Tanaka<sup>1</sup>, Masateru Takigawa<sup>1</sup>, Jun Nakajima<sup>1</sup>, Emiko Nakashima<sup>1</sup>, Kazuo Yamao<sup>1</sup>, Kenzo Hirao<sup>2</sup>, Mitsuaki Isobe<sup>2</sup>**

*<sup>1</sup>Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan*

### PD4-3 Indication and Follow-up of Catheter Ablation for Persistent Atrial Fibrillation from the Perspective of Left Atrial Function; A Novel Index of Echocardiography

**Takahiko Nagase<sup>1</sup>, Ritsushi Kato<sup>1</sup>, Yoshifumi Ikeda<sup>1</sup>, Yuichiro Shiki<sup>1</sup>, Yoshihiro Yamada<sup>1</sup>, Sayaka Tanaka<sup>1</sup>, Shirou Iwanaga<sup>1</sup>, Shigeyuki Nishimura<sup>1</sup>, Kazuo Matsumoto<sup>2</sup>**

*<sup>1</sup>Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan, <sup>2</sup>Higashimatsuyama Medical Association Hospital, Saitama, Japan*

### PD4-4 Left Atrial Linear Ablation in Patients with Persistent Atrial Fibrillation

**Seiichiro Matsuo, Teiichi Yamane, Kenichi Tokutake, Kenichi Yokoyama, Mika Hioki, Ryohsuke Narui, Shin-ichi Tanigawa, Michifumi Tokuda, Seigo Yamashita, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Michihiro Yoshimura**

*The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*



# Thursday, 30 July

**PD4-5**

## **The Efficacy of Epicardial Adipose Tissue Ablation Based on the Dominant Frequency of Non-paroxysmal Atrial Fibrillation**

**Koji Kumagai**, Masahiro Nakano, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Kentaro Minami, Manabu Shimizu, Toshiaki Yano, Takehito Sasaki, Kohki Nakamura, Shigeto Naito, Shigeru Oshima

*Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*

**PD4-6**

## **Characteristics of refractory persistent AF patients after ganglionated plexus plus antral PV isolation based approach**

**Kohei Yamashiro**, Daisuke Yoshimoto, Mitsuaki Ito, Kazuto Kujira, Yuichiro Sakamoto

*Cardiovascular Medicine, Toyohashi Heart Center, Aichi, Japan*

## Approach to Non-responder of CRT ★

**Chairs** Toshiyuki Ishikawa

*Department of Cardiovascular Medicine, Yokohama City University School of Medicine, Kanagawa, Japan*

Hisashi Yokoshiki

*Department of Cardiovascular Medicine, Hokkaido University Hospital, Hokkaido, Japan*

### SP7-1 Key Note Lecture: Approach to Non-Responders of CRT

**Bernard Thibault**

*Montreal Heart Institute, Canada*

### SP7-2 CRT non-responder can decrease by appropriate patient selection along current guidelines

**Toshiko Nakai<sup>1</sup>**, Yukitoshi Ikeya<sup>1</sup>, Sonoko Ashino<sup>1</sup>, Kazuki Iso<sup>1</sup>, Keiko Takahashi<sup>1</sup>, Naoko Sasaki<sup>1</sup>, Kazumasa Sonoda<sup>1</sup>, Rikitake Kogawa<sup>1</sup>, Koichi Nagashima<sup>1</sup>, Masaaki Nagashima<sup>2</sup>, Sayaka Kurokawa<sup>1</sup>, Yasuo Okumura<sup>1</sup>, Kimie Ohkubo<sup>1</sup>, Toshiyuki Ohya<sup>1</sup>, Satoshi Kunitomo<sup>1</sup>, Yuji Kasamaki<sup>1</sup>, Ichiro Watanabe<sup>1</sup>, Atsushi Hirayama<sup>1</sup>

*<sup>1</sup>Department of Medicine, Division of Cardiology, Nihon University School of Medicine, Tokyo, Japan, <sup>2</sup>Division of Laboratory Medicine, Department of Pathology and Microbiology, Nihon University School of Medicine, Tokyo, Japan*

### SP7-3 Presence of mitral regurgitation at mid-term follow-up predicts rehospitalization due to worsening heart failure in non-responder patients to cardiac resynchronization therapy

**Hitoshi Minamiguchi**, Hiroya Mizuno, Shozo Konishi, Kentaro Ozu, Tomoaki Nakano, Tomohito Ohtani, Yuji Okuyama, Osamu Yamaguchi, Yasushi Sakata

*Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine, Osaka, Japan*

### SP7-4 Programming and pharmacological optimization for long-term structural reverse remodeling in patients with cardiac resynchronization therapy

**Ikutaro Nakajima**, Takashi Noda, Mitsuru Wada, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takeshi Aiba, Shiro Kamakura, Kengo Kusano

*Division of Cardiology, National Cerebral and Cardiovascular Center, Osaka, Japan*

### SP7-5 Ventricular tachyarrhythmias of implantable cardioverter defibrillator patients who are upgraded to cardiac resynchronization therapy increase or decrease in response?

**Junjiroh Koyama**, Yasuaki Tanaka, Takuo Tsurugi, Hideharu Okamatsu, Masataka Kajiwara, Toshihiro Honda

*Division of Cardiology, Saiseikai Kumamoto Hospital Cardiovascular Center, Kumamoto, Japan*

# Thursday, 30 July

**Room 2** 11:50-12:50 Luncheon Seminar14 [LS14]

## **Focus on Apixaban: Stroke Prevention Up-To-Date Strategy for AF Patients with HF in Elderly Patients ★**

**Chair** Hideo Mitamura

*Tachikawa Hospital, Federation of National Public Service Personnel Mutual Aid Association, Tokyo, Japan*

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### **LS14-1 Heart Failure and Atrial Fibrillation: Lessons From Registries and Clinical Trials**

**Hiroyuki Tsutsui**

*Department of Cardiovascular Medicine, Hokkaido University Graduate School of Medicine, Hokkaido, Japan*

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### **LS14-2 New Data on Stroke Prevention in AF Patients with Heart Failure - Focus on Apixaban**

**John J V McMurray**

*Medical Cardiology in the Institute of Cardiovascular and Medical Sciences, University of Glasgow, UK*

*(Bristol-Myers K.K. / Pfizer Japan Inc.)*

**Director****Warren M. Jackman***University of Oklahoma Health Sciences Center, USA***Co-Directors****Hiroshi Nakagawa***University of Oklahoma Health Sciences Center, USA***Kazuo Matsumoto***Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan***Opening Remarks****Johnson & Johnson K.K.****Session 1****Chair****Hiroshi Nakagawa***University of Oklahoma Health Sciences Center, USA***OAC1****Lecture 1 Radiofrequency Catheter Ablation: Lessons on Lesions****Hiroshi Nakagawa***University of Oklahoma Health Sciences Center, USA***OAC2****Lecture 2 WPW Syndrome Ablation****Warren M. Jackman***University of Oklahoma Health Sciences Center, USA***OAC3****Lecture 3 AVNRT Ablation****Warren M. Jackman***University of Oklahoma Health Sciences Center, USA***Session 2****Chair****Kazuo Matsumoto***Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan***OAC4****Lecture 4 Electrophysiological and anatomical substrates of verapamil-sensitive idiopathic left ventricular tachycardia****Yoshinori Kobayashi***Department of Cardiology, Tokai University Hachioji-Hospital, Tokyo, Japan*

# Thursday, 30 July

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**OAC5**   **Lecture 5**   **Tips and Tricks for VT Ablation: Substrate Mapping, Entrainment, and Pacemapping**

**Kyoko Soejima**

*The Second Department of Internal Medicine, Kyorin University Hospital, Tokyo, Japan*

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**OAC6**   **Lecture 6**   **Prospective Study to Test the Ability to Create RF Lesions at Predicted Depth and Diameter Using a New Formula Incorporating Contact Force, Radiofrequency Power and Application Time (Force-Power-Time Index) in the Beating Canine Heart**

**Hiroshi Nakagawa**

*University of Oklahoma Health Sciences Center, USA*

**Closing Remarks**

**Warren M. Jackman**

*University of Oklahoma Health Sciences Center, USA*

*(Johnson & Johnson K.K.)*

**Room 3** 7:45-8:30 Morning Seminar1 [MS1]

## **Epicardial VT ablation: When and How?**

**Chair** Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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**MS1-1** **Epicardial VT ablation: When and How?**

**Seiji Fukamizu**

*Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan*

*(Novartis Pharma K.K.)*

Thursday, 30 July

Room 3 8:30-10:00 Symposium8 [SP8]

## Noninvasive Test for Prediction of Sudden Cardiac Death —Conventional Methods and Its New Application— ★

**Chairs** Masatake Fukunami  
*Osaka General Medical Center, Osaka, Japan*

Koichiro Yoshioka  
*Tokai University School of Medicine, Cardiology, Kanagawa, Japan*

### Key Note Lecture: Combined Use of Noninvasive Risk Stratification Tools for Sudden Cardiac Death

Takanori Ikeda  
*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*

### SP8-1 Circadian Variation, Rate-dependent Dynamics of Late Potential(LP) in Sarcoidosis, ARVC, IVF, Brugada Syndrome Evaluated by SAECG Using 24h-HolterECG

Mutsuko Sangawa, Hiroshi Morita, Motomi Tachibana, Koji Nakagawa, Nobuhiro Nishii, Satoshi Nagase, Kazufumi Nakamura, Hiroshi Ito  
*Department of Cardiovascular Medicine, Okayama University, Okayama, Japan*

### SP8-2 Prevalence and Prognostic Significance of Late Potentials in Patients with Sarcoidosis

Kenji Yodogawa, Yuhi Fujimoto, Kanako Hagiwara, Eiichiro Oka, Kenta Takahashi, Ippei Tsuboi, Hiroshi Hayashi, Yu-ki Iwasaki, Meiso Hayashi, Yasushi Miyauchi, Wataru Shimizu  
*Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan*

### SP8-3 Prognostic significance of ventricular late potential for prediction of recurrent hospitalization events in patients with acute coronary syndrome

Mari Amino<sup>1</sup>, Koichiro Yoshioka<sup>1</sup>, Mari Nakamura<sup>1</sup>, Eiichi Watanabe<sup>2</sup>, Daisuke Fujibayashi<sup>1</sup>, Shigetaka Kanda<sup>1</sup>, Sadaki Inokuchi<sup>3</sup>, Yoshinori Kobayashi<sup>1</sup>, Teruhisa Tanabe<sup>4</sup>, Yuji Ikari<sup>1</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Tokai University School of Medicine, Kanagawa, Japan, <sup>2</sup>Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, <sup>3</sup>Department of Emergency Critical Care Medicine, Tokai University School of Medicine, Kanagawa, Japan, <sup>4</sup>Ebina General Hospital Cardiovascular Center, Kanagawa, Japan

**SP8-4** **Spatial distribution of the late gadolinium enhancement on cardiac MRI strongly affects maximal T-wave alternans sites on the 12-lead Holter ECG in hypertrophic cardiomyopathy**

**Naka Sakamoto**, Nobuyuki Sato, Eitaro Sugiyama, Yasuko Tanabe, Yuichiro Kawamura, Naoyuki Hasebe

*The Department of Cardiology, Asahikawa Medical University, Hokkaido, Japan*

**SP8-5** **Patients with implantable cardioverter defibrillator at risk for ventricular tachyarrhythmias: Identification by ambulatory electrocardiogram-based frequency domain T-wave alternans in comparison with heart rate variability and heart rate turbulence**

**Masato Kawasaki**, Takahisa Yamada, Takashi Morita, Yoshio Furukawa, Shunsuke Tamaki, Yusuke Iwasaki, Atsushi Kikuchi, Takumi Kondo, Masashi Ishimi, Hideyuki Hakui, Tatsuhisa Ozaki, Yoshihiro Sato, Masahiro Seo, Masatake Fukunami

*Division of Cardiology, Osaka General Medical Center, Osaka, Japan*



## The Role of Imaging Modalities in the EP Laboratory

**Chairs Hiroshi Nakagawa**

*University of Oklahoma Health Sciences Center, USA*

**Ritsushi Kato**

*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

### PD5-1 Pre-procedural Assessment of Atrial and Ventricular Tissue Scar Identified by Delayed Enhancement MRI for Catheter Ablation

**Yasuo Okumura**, Ichiro Watanabe, Kazumasa Sonoda, Koichi Nagashima, Naoko Sasaki, Rikitake Kogawa, Keiko Takahashi, Kazuki Iso, Satoshi Kunimoto, Kimie Ohkubo, Toshiko Nakaj, Atsushi Hirayama

*Division of Cardiology, Department of Medicine, Nihon University School of Medicine, Tokyo, Japan*

### PD5-2 Accuracy of delayed enhancement magnetic resonance imaging detecting the reconnection site in 2nd AF ablation

**Kunihiko Kiuchi**<sup>1</sup>, Katsunori Okajima<sup>1</sup>, Akira Shimane<sup>1</sup>, Kiminobu Yokoi<sup>1</sup>, Jin Teranishi<sup>1</sup>, Kousuke Aoki<sup>1</sup>, Misato Chimura<sup>1</sup>, Takayoshi Toba<sup>1</sup>, Shogo Ohishi<sup>1</sup>, Takahiro Sawada<sup>1</sup>, Yasue Tsukishiro<sup>1</sup>, Tetsuuri Onishi<sup>1</sup>, Seiichi Kobayashi<sup>1</sup>, Shinichiro Yamada<sup>1</sup>, Yasuyo Taniguchi<sup>1</sup>, Yoshinori Yasaka<sup>1</sup>, Hiroya Kawai<sup>1</sup>, Kazushi Ikeuchi<sup>2</sup>, Yutaka Shigenaga<sup>2</sup>, Takayuki Ikeda<sup>2</sup>

<sup>1</sup>Department of Cardiology, Himeji Cardiovascular Center, Hyogo, Japan, <sup>2</sup>Department of Laboratory and Radiology, Himeji Cardiovascular Center, Hyogo, Japan

### PD5-3 Novel evaluation method with delayed-enhancement magnetic resonance imaging for assessment of lesions after cryothermal balloon ablation

**Tsuyoshi Mishima**<sup>1</sup>, Koji Miyamoto<sup>1</sup>, Yoshinari Morita<sup>2</sup>, Mitsuru Wada<sup>1</sup>, Ikutaro Nakajima<sup>1</sup>, Kohei Ishibashi<sup>1</sup>, Hideo Okamura<sup>1</sup>, Takashi Noda<sup>1</sup>, Takeshi Aiba<sup>1</sup>, Shiro Kamakura<sup>1</sup>, Kengo Kusano<sup>1</sup>

<sup>1</sup>The Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan, <sup>2</sup>The Department of Radiology, National Cerebral and Cardiovascular Center, Osaka, Japan

### PD5-4 Integration of MDCT-Imaged Myocardial Fatty Infiltration into 3D Navigation System to Guide Ventricular Tachycardia Ablation in Arrhythmogenic Right Ventricular Cardiomyopathy

**Yuki Komatsu**<sup>1</sup>, Michel Haissaguerre<sup>2</sup>, Pierre Jais<sup>2</sup>

<sup>1</sup>Cardiology Division, Yokohama Rosai Hospital, Kanagawa, Japan, <sup>2</sup>Department of Cardiac Electrophysiology, Hopital Cardiologique du Haut-Leveque, CHU Bordeaux, Bordeaux, France

PD5-5

## Development of a Novel Real-Time Phase Mapping System Using in Silico Technique for Identifying Unstable Rotors in Human Atrial Fibrillation

Takashi Ashihara<sup>1</sup>, Tomoya Ozawa<sup>1</sup>, Takeshi Tsuchiya<sup>2</sup>, Takanori Yamaguchi<sup>3</sup>, Akira Fukui<sup>2</sup>, Ryo Haraguchi<sup>4</sup>, Shin Inada<sup>4</sup>, Kazuo Nakazawa<sup>4</sup>, Minoru Horie<sup>1</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Shiga University of Medical Science, Shiga, Japan, <sup>2</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>3</sup>Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, <sup>4</sup>National Cerebral and Cardiovascular Center, Osaka, Japan

*Thursday, 30 July*

**Room 3** 11:50-12:50 Luncheon Seminar15 [LS15]

**Novel methods for evaluation of repolarization dynamics during 24-h Holter ECG**

**~QT-RR relation and AF embolism~**

**Chair Naohiko Takahashi**

*Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

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**LS15-1** **Novel methods for evaluation of repolarization dynamics during 24-h Holter ECG**

**~QT-RR relation and AF embolism~**

**Akira Fujiki**

*Shizuoka Heart Rhythm Clinic, Shizuoka, Japan*

*(FUKUDA DENSHI CO., LTD)*

## デバイスの遠隔診断の普及は必要である

座長 西井伸洋  
岡山大学大学院医歯学総合研究科循環器内科

### MD2-1 賛成

伊藤朋晃  
小倉記念病院検査技師部工学課

### MD2-2 反対

堺 美郎  
熊本済生会病院臨床工学部

# Thursday, 30 July

Room 3 15:10-16:10 Oral Presentation (Medical Professionals) [M3]

## アブレーション2 (メディカルプロフェッショナル)

座長 山部浩茂

熊本大学大学院生命科学研究部 循環器内科学

岡本陽地

倉敷中央病院心臓病センター 循環器内科

### M3-1 Ensite NavXにおける大動脈リファレンス留置部位の比較検討

官野高明<sup>1</sup>, 齋藤直樹<sup>2</sup>, 久次米真吾<sup>2</sup>, 安藤元素<sup>2</sup>, 飯田大輔<sup>2</sup>, 山家 謙<sup>2</sup>, 竹中 創<sup>2</sup>, 郡司尚玲<sup>3</sup>

<sup>1</sup>緑成会横浜総合病院臨床工学科, <sup>2</sup>緑成会横浜総合病院循環器, <sup>3</sup>勤医協中央病院循環器科

### M3-2 EnSite Velocity™使用中のドリフト軽減に対するNavX体表面電極キットLargeの有用性

根津知行<sup>1</sup>, 山田将志<sup>1</sup>, 宮城恵子<sup>1</sup>, 三原由裕<sup>1</sup>, 千葉晶奈<sup>1</sup>, 沼里淳平<sup>1</sup>, 小笠原洋子<sup>3</sup>, 國井民夫<sup>3</sup>, 乙井亮太<sup>3</sup>, 林 直人<sup>1</sup>, 円城寺由久<sup>2</sup>

<sup>1</sup>大崎病院東京ハートセンター臨床工学科, <sup>2</sup>大崎病院東京ハートセンター循環器内科不整脈診療部, <sup>3</sup>セント・ジュード・メディカル株式会社

### M3-3 心房細動アブレーション後の複数起源のPACに対してEnSite VelocityシステムのMulti Morphology Mappingが有用だった1例

中西理恵子<sup>1</sup>, 内藤雅起<sup>2</sup>, 藤本 源<sup>2</sup>, 平井香衣子<sup>2</sup>, 荻田 祐<sup>1</sup>, 田仲直弘<sup>1</sup>, 上村義昌<sup>1</sup>, 布元孝典<sup>1</sup>, 寺田賢二<sup>1</sup>, 土肥直文<sup>2</sup>

<sup>1</sup>奈良県西和医療センター診療部臨床工学科, <sup>2</sup>奈良県西和医療センター

### M3-4 心房頻拍症例時のElectro-anatomical mappingにおけるReference電極の評価

長瀬弘行<sup>1</sup>, 間瀬健太郎<sup>1</sup>, 又野暢天<sup>1</sup>, 林 洋佑<sup>1</sup>, 奥村一史<sup>1</sup>, 大坪克浩<sup>1</sup>, 新田功児<sup>1</sup>, 浅井 徹<sup>2</sup>, 志水清和<sup>2</sup>

<sup>1</sup>一宮市立市民病院臨床工学科, <sup>2</sup>一宮市立市民病院循環器内科

### M3-5 心房細動に対するボックス隔離術後の”Gate map”の有効性

森末明彦<sup>1</sup>, 中下清文<sup>1</sup>, 峠崎純一<sup>1</sup>, 藤井美弥<sup>1</sup>, 新井翔太<sup>1</sup>, 木下卓也<sup>1</sup>, 原 幹<sup>2</sup>, 城日加里<sup>2</sup>, 梶原賢太<sup>2</sup>, 新田和宏<sup>2</sup>, 梶原真二<sup>2</sup>, 小野裕二郎<sup>2</sup>

<sup>1</sup>独立行政法人国立病院機構東広島医療センター医療機器管理室, <sup>2</sup>独立行政法人国立病院機構東広島医療センター循環器内科

## 遠隔モニタリング（メディカルプロフェッショナル）

座長 栗田康生  
国際医療福祉大学大学院  
久保元基  
心臓病センター榊原病院 循環器内科

### M4-1 ケアリンクエクスプレスが外来診療に与える影響～患者の待ち時間短縮の試みから見てきたこと～

菅 令子  
鳥取県立中央病院看護局

### M4-2 遠隔モニタリングのバックアップ作動によるアラート経験

神谷典男<sup>1</sup>，北本憲永<sup>1</sup>，広瀬徳勝<sup>1</sup>，藤井洵希<sup>1</sup>，九島祐樹<sup>1</sup>，杉浦 亮<sup>2</sup>，岡 俊明<sup>2</sup>，岩谷亜矢子<sup>3</sup>  
<sup>1</sup>聖隷浜松病院臨床工学室，<sup>2</sup>聖隷浜松病院循環器科，<sup>3</sup>聖隷浜松病院看護部

### M4-3 呼吸状態の遠隔モニタリングの重要性

藤原麻未<sup>1</sup>，山本真由美<sup>2</sup>，越川真行<sup>2</sup>，市川智英<sup>2</sup>，祖父江嘉洋<sup>2</sup>，奥田健太郎<sup>2</sup>，原田将英<sup>2</sup>，辻川圭亮<sup>1</sup>，山本 賢<sup>1</sup>，渡邊英一<sup>2</sup>，尾崎行男<sup>1</sup>  
<sup>1</sup>藤田保健衛生大学病院臨床検査部，<sup>2</sup>藤田保健衛生大学循環器内科

### M4-4 ペースメーカ植込み患者の遠隔モニタリングにおける心室性頻拍エピソードの意義

早坂秀幸<sup>1</sup>，草浦理恵<sup>1</sup>，安田 徹<sup>1</sup>，百瀬直樹<sup>1</sup>，林 武邦<sup>2</sup>，菅原養厚<sup>2</sup>，三橋武司<sup>2</sup>  
<sup>1</sup>自治医科大学附属さいたま医療センター，<sup>2</sup>自治医科大学附属さいたま医療センター循環器科

### M4-5 小児患者の遠隔モニタリングシステムの現状と課題

丸川史織<sup>1</sup>，井上完起<sup>2</sup>，岡崎真紀子<sup>3</sup>，増田愛子<sup>1</sup>，前田友未<sup>1</sup>，矢川真弓子<sup>2</sup>，上田知実<sup>4</sup>，和田直樹<sup>5</sup>，嘉川忠博<sup>4</sup>，安藤 誠<sup>5</sup>，辻 孝子<sup>1</sup>，三浦稚郁子<sup>1</sup>，朴 仁三<sup>4</sup>，高橋幸宏<sup>5</sup>，梅村 純<sup>2</sup>，友池仁暢<sup>2</sup>  
<sup>1</sup>日本心臓血圧研究振興会附属榊原記念病院看護部，<sup>2</sup>日本心臓血圧研究振興会附属榊原記念病院循環器内科，<sup>3</sup>日本心臓血圧研究振興会附属榊原記念病院臨床工学技士，<sup>4</sup>日本心臓血圧研究振興会附属榊原記念病院小児循環器内科，<sup>5</sup>日本心臓血圧研究振興会附属榊原記念病院小児循環器外科

### M4-6 植込み型除作動器の抗頻拍ペーシングに起因した心室頻拍加速現象について

木田博太<sup>1</sup>，古川善郎<sup>2</sup>，菊池佳峰<sup>1</sup>，川崎真佐登<sup>2</sup>，山田貴久<sup>2</sup>，福並正剛<sup>2</sup>  
<sup>1</sup>大阪府立急性期・総合医療センター臨床工学室，<sup>2</sup>大阪府立急性期・総合医療センター心臓内科

**Committee Chair****Akiko Chishaki***Faculty of Medical Sciences Department of Health Sciences, Kyushu University, Fukuoka, Japan***Committee Members****Atsushi Sugiyama***Department of Pharmacology, Toho University, Tokyo, Japan***Naohiko Takahashi***Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan***Hiroshi Tada***Department of Cardiovascular Medicine, Faculty of Medical Sciences, University of Fukui, Fukui, Japan***Kaoru Tanno***Department of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan***Nobuhisa Hagiwara***Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan***Eiichi Watanabe***Department of Cardiology, Fujita Health University, Aichi, Japan***AW2-1****Nonsense-Mediated mRNA Decay due to a CACNA1C Splicing Mutation in a Patient with Brugada Syndrome****Megumi Fukuyama<sup>1</sup>, Seiko Ohno<sup>1</sup>, Qi Wang<sup>1</sup>, Takeshi Shirayama<sup>2</sup>, Hideki Itoh<sup>1</sup>, Minoru Horie<sup>1</sup>***<sup>1</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan, <sup>2</sup>Division of Cardiovascular Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan***AW2-2****Inhibition of N-type Ca<sup>2+</sup> Channels Ameliorates an Imbalance in Cardiac Autonomic Nerve Activity and Prevents Lethal Arrhythmias in Mice with Heart Failure****Yuko Yamada<sup>1,2</sup>, Hideyuki Kinoshita<sup>1,3</sup>, Koichiro Kuwahara<sup>1,3</sup>, Yasuaki Nakagawa<sup>1,3</sup>, Yoshihiro Kuwabara<sup>1,4</sup>, Takeya Minami<sup>1,3</sup>, Chinatsu Yamada<sup>1,3</sup>, Junko Shibata<sup>1,3</sup>, Kazuhiro Nakao<sup>1,2,3</sup>, Kosai Cho<sup>3,5</sup>, Yuji Arai<sup>6</sup>, Shinji Yasuno<sup>4</sup>, Toshio Nishikimi<sup>1,3</sup>, Kenji Ueshima<sup>4</sup>, Shiro Kamakura<sup>7</sup>, Motohiro Nishida<sup>8</sup>, Shigeki Kiyonaka<sup>9</sup>, Yasuo Mori<sup>9</sup>, Takeshi Kimura<sup>3</sup>, Kenji Kangawa<sup>2,10</sup>, Kazuwa Nakao<sup>1,11</sup>***<sup>1</sup>Department of Medicine and Clinical Science, Kyoto University Graduate School of Medicine, Kyoto, Japan,**<sup>2</sup>Department of Peptide Research, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>3</sup>Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>4</sup>Department of EBM Research, Institute for Advanced of Clinical and Translational Science, Kyoto University Hospital, Kyoto, Japan,**<sup>5</sup>Department of Primary Care and Emergency Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan,**<sup>6</sup>Department of Bioscience and Genetics, National Cerebral and Cardiovascular Center Research, Institute, Osaka, Japan, <sup>7</sup>Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan,**<sup>8</sup>Division of Cardiocirculatory Signaling, Okazaki Institute for Integrative Bioscience(National Institute for**Physiological Sciences), National Institute for Natural Sciences, Aichi, Japan, <sup>9</sup>Department of Synthetic Chemistry and Biological Chemistry, Kyoto University Graduate School of Engineering, Kyoto, Japan, <sup>10</sup>Department of Biochemistry,**National Cerebral and Cardiovascular Center Research, Institute, Osaka, Japan, <sup>11</sup>Medical Innovation Center, Kyoto University Graduate School of Medicine, Kyoto, Japan*

**AW2-3 Long-Term Follow-Up after Catheter Ablation of Paroxysmal Atrial Fibrillation: The Incidence of Recurrence and Progression of Atrial Fibrillation**

**Masateru Takigawa**<sup>1,3,4</sup>, Atsushi Takahashi<sup>1</sup>, Taishi Kuwahara<sup>1</sup>, Kenji Okubo<sup>1</sup>, Yoshihide Takahashi<sup>1</sup>, Yuji Watari<sup>1</sup>, Katsumasa Takagi<sup>1</sup>, Tadashi Fujino<sup>1</sup>, Shigeki Kimura<sup>1</sup>, Hiroyuki Hikita<sup>1</sup>, Makoto Tomita<sup>2</sup>, Kenzo Hirao<sup>3</sup>, Mitsuaki Isobe<sup>4</sup>

<sup>1</sup>Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, <sup>2</sup>Clinical Research Center, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, <sup>4</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

**AW2-4 Electrocardiographic Parameters and Fatal Arrhythmic Events in Patients with Brugada Syndrome: Combination of Depolarization and Repolarization Abnormalities**

**Koji Tokioka**<sup>1</sup>, Kengo F. Kusano<sup>2</sup>, Hiroshi Morita<sup>1</sup>, Daiji Miura<sup>1</sup>, Nobuhiro Nishii<sup>1</sup>, Satoshi Nagase<sup>1</sup>, Kazufumi Nakamura<sup>1</sup>, Kuniyoshi Kohno<sup>1</sup>, Hiroshi Ito<sup>1</sup>, Tooru Ohe<sup>3</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Science, Okayama, Japan, <sup>2</sup>Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan, <sup>3</sup>Sakakibara Heart Institute of Okayama, Okayama, Japan



# Thursday, 30 July

Room 4 9:30-11:30 JHRS-JSE-EHRA Joint Symposium [JEJ]

## New Technology Ablation ★

**Chairs** Pierre Jais

*University of Bordeaux, France*

**Ken Okumura**

*Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan*

**JEJ1**

**One-year clinical outcome after pulmonary vein isolation using the second-generation 28mm cryoballoon**

**Andreas Metzner**

*Asklepios Klinik St. Georg, Germany*

**JEJ2**

**Cryoballoon ablation for Japanese patients: Preliminary reports from Japanese PMS**

**Teiichi Yamane, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryosuke Narui, Mika Kato, Michifumi Tokuda, Michihiro Yoshimura**

*Department of Cardiology, Jikei University School of Medicine, Tokyo, Japan*

**JEJ3**

**Catheter ablation guided by cardiac MRI**

**Christopher Piorkowski**

*Heart Center Dresden University, Germany*

**JEJ4**

**Catheter ablation using photodynamic therapy**

**Seiji Takatsuki, Takehiro Kimura, Keiichi Fukuda**

*Department of Cardiology, Keio University School of Medicine, Tokyo, Japan*

**Room 4** 11:50-12:50 Luncheon Seminar16 [LS16]

## **Tips and tricks of AdaptivCRT in clinical practice**

**Chair** Yukihiro Yoshida

*Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan*

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**LS16-1** **Tips and tricks of AdaptivCRT in clinical practice**

**Takashi Noda**

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

*(Medtronic Japan Co., Ltd.)*

# Thursday, 30 July

**Room 4** 14:10-15:10 Sweets Seminar3 [TS3]

## **The Current Situation of Diagnostic Care Pathways in Unexplained Syncope ★**

**Chair Haruhiko Abe**

*Department of Heart Rhythm Management, University of Occupational and Environment Health, Fukuoka, Japan*

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**TS3-1 To Implant? Or Not Implant?: The Current Usage of ILRs According to a Nationwide Survey of Cardiologists on Unexplained Syncope Diagnosis**

**Ritsuko Kohno**

*Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan*

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**TS3-2 Developing an Optimal Care Pathway for Diagnosis of Unexplained Syncope**

**David G. Benditt**

*Cardiac Arrhythmia Center, Cardiovascular Division, University of Minnesota, USA*

*(Medtronic Japan Co., Ltd.)*

## Arrhythmia and Cardiac Rehabilitation—Evidence and Future Perspective of Exercise Therapy—

**Chairs** Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

**Akira Yamashina**

*Department of Cardiology, Tokyo Medical University, Tokyo, Japan*

### JAJ1 Relation of physical activity to risk of atrial fibrillation

**Mikiko Nakagawa**, Takanori Yamaguchi, Naohiko Takahashi

*Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

### JAJ2 How to deal with the problems during cardiac rehabilitation and to maximize its effects in the patients with ICD or CRT-D?

**Takeshi Mitsuhashi**, Nahoko Ikeda, Yoshitaka Sugawara, Shin-ichi Momomura

*Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan*

### JAJ3 Beneficial effects of exercise-based cardiac rehabilitation for long-term prognosis in patients with device implantation

**Shinji Koba**<sup>1</sup>, Mitsuharu Kawamura<sup>1</sup>, Miwa Kikuchi<sup>1</sup>, Yuya Yokota<sup>1</sup>, Fumiaki Furuyama<sup>1</sup>, Yumi Munetsugu<sup>1</sup>, Makoto Shoji<sup>1</sup>, Taro Adachi<sup>1</sup>, Taku Asano<sup>1</sup>, Kaoru Tanno<sup>2</sup>, Youichi Kobayashi<sup>1</sup>

<sup>1</sup>The Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan, <sup>2</sup>The Department of Medicine, Division of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan

### JAJ4 The effects of exercise training on arrhythmia: Case Presentation and literature review

**Hirokazu Shiraishi**, Tetsuro Hamaoka, Mikimasa Imai, Akira Kuroyanagi, Takeshi Shirayama

*The Department of Cardiovascular Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan*

## VT 4★

**Chairs** Yuichiro Kawamura

*Health Administration Center, Asahikawa Medical University, Hokkaido, Japan*

**Kyoko Soejima**

*Department of Cardiology, Kyorin University Hospital, Tokyo, Japan*

### O24-1 Delayed Success Following Catheter Ablation for Premature Ventricular Complexes

**Takeshi Kitamura<sup>1</sup>**, Seiji Fukamizu<sup>1</sup>, Kiyotaka Yoshida<sup>1</sup>, Satoshi Miyazawa<sup>1</sup>, Iwanari Kawamura<sup>1</sup>, Akihiro Nakada<sup>1</sup>, Yuichi Moriyama<sup>1</sup>, Ken Arai<sup>1</sup>, Toshiki Kaihara<sup>1</sup>, Rintaro Hojo<sup>1</sup>, Yuya Aoyama<sup>1</sup>, Kota Komiyama<sup>1</sup>, Tamotsu Tejima<sup>1</sup>, Mitsuhiro Nishizaki<sup>2</sup>, Harumizu Sakurada<sup>3</sup>, Masayasu Hiraoka<sup>4</sup>

*<sup>1</sup>Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan, <sup>2</sup>Department of Cardiology, Yokohama Minami Kyosai Hospital, Kanagawa, Japan, <sup>3</sup>Tokyo Metropolitan Health and Medical Treatment Corporation Ohkubo Hospital, Tokyo, Japan, <sup>4</sup>Toride Kitasoma Medical Center Hospital, Ibaraki, Japan*

### O24-2 Late LAD stenosis after Ventricular tachycardia ablation

**Haruo Mitani**, Manabu Moriya, Sugao Ishiwata, Minoru Ohno

*Cardiovascular Center Toranomom Hospital, Tokyo, Japan*

### O24-3 Usefulness of contact force-sensing catheter for ablation of the premature ventricular complexes originating from the left ventricular papillary muscle

**Eiichiro Nakagawa**, Kenji Shimeno, Kanako Akamatsu, Syunsuke Kagawa, Tsukasa Matsushita, Tomotaka Yoshiyama, Astuko Fufukawa, Kei Yunoki, Yukio Abe, Ryushi Komatsu, Takahiko Naruko

*Department of Cardiology, Osaka City General Hospital, Osaka, Japan*

### O24-4 Circadian Variation of Ventricular Tachycardia in Cardiomyopathy was Associated with Instability of Repolarization

**Minoru Nodera**, Hitoshi Suzuki, Masashi Kamioka, Takashi Kaneshiro, Yoshiyuki Kamiyama, Yasuchika Takeishi

*Department of Cardiology and Hematology, Fukushima Medical University, Fukushima, Japan*

### O24-5 Arrhythmogenic Substrate in Hemorrhagic Shock-Induced Heart and Comparable Effect of Different Artificial Oxygen Carriers

**Bonpei Takase**, Yuko Higashimura

*Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan*

## VT 5

**Chairs Masahiko Goya**

*Department of Cardiology, Tokyo Medical and Dental University, Tokyo, Japan*

**Hiroshi Furusho**

*Department of Cardiology, Kanazawa University Hospital, Ishikawa, Japan*

### **O25-1 Estimation of the Origin of Ventricular Arrhythmia Using Synthesized 18-Lead Electrocardiography: Differentiating between the para-Hisian Region and the Right Coronary Cusp**

**Masahiro Nakano**<sup>1</sup>, Koji Kumagai<sup>2</sup>, Shigeto Naito<sup>2</sup>, Kohki Nakamura<sup>2</sup>, Eri Goto<sup>2</sup>, Satoru Shimizu<sup>2</sup>, Toshiaki Yano<sup>2</sup>, Daisuke Kutsuzawa<sup>2</sup>, Yoshiaki Yamaguchi<sup>2</sup>, Kentaro Minami<sup>2</sup>, Taketo Sasaki<sup>2</sup>, Marehiko Ueda<sup>1</sup>, Yoshio Kobayashi<sup>1</sup>

*<sup>1</sup>Department of Cardiovascular Medicine, Chiba University Graduate School of Medicine, Chiba, Japan, <sup>2</sup>Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*

### **O25-2 Distance to the origin, not the earliness activation or pacemap, determines a cure of ventricular tachyarrhythmias: A distinct subgroup of outflow tachyarrhythmias**

**Kaori Hisazaki**, Kenichi Kaseno, Naoki Amaya, Daisetsu Aoyama, Kanae Hasegawa, Yuichiro Shiomi, Naoto Tama, Hiroyuki Ikeda, Takehiko Sato, Yoshitomo Fukuoka, Tetsuji Morishita, Kentaro Ishida, Hiroyasu Uzui, Hiroshi Tada

*Department of Cardiovascular Medicine, Faculty of Medical Sciences, University of Fukui, Fukui, Japan*

### **O25-3 Characteristics of idiopathic right ventricular outflow tract type ventricular arrhythmias originating from septal intramural foci**

**Yoshihiro Yamashina**, Tetsuo Yagi, Akihiko Ishida, Yoshiaki Mibiki, Hirokazu Sato, Takashi Nakagawa, Eiji Sato, Juri Komatsu

*Division of Cardiology, Sendai City Hospital, Miyagi, Japan*

### **O25-4 Epicardial ablation in patients with drug-refractory ventricular tachycardia and structural heart diseases**

**Muryo Terasawa**<sup>1</sup>, Kazuhiro Satomi<sup>1</sup>, Ken Takarada<sup>3</sup>, Yoshinao Yazaki<sup>3</sup>, Yoshinari Goseki<sup>3</sup>, Kengo Kusano<sup>2</sup>, Akira Yamashina<sup>3</sup>

*<sup>1</sup>Cardiovascular Medicine Tokyo Medical University Hachioji Medical Center, Tokyo, Japan, <sup>2</sup>National Cerebral and Cardiovascular Center Hospital, Osaka, Japan, <sup>3</sup>Tokyo Medical University Hospital, Tokyo, Japan*

# Thursday, 30 July

**O25-5** **The effectiveness and the safety of epicardial radiofrequency catheter ablation for ventricular tachycardia refractory to endocardial catheter ablation**

**Hiroshi Imada**, Koji Fukuzawa, Akihiro Yoshida, Tomoyuki Nakanishi, Soichiro Yamashita, Akinori Matsumoto, Hiroki Konishi, Hirotochi Ichibori, Kiyohiro Hyogo, Ken-ichi Hirata

*Department of Internal Medicine, Division of Cardiovascular Medicine, Kobe University Graduate School of Medicine, Hyogo, Japan*

## VT 6

**Chairs** Kaoru Tanno

*Department of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan*

**Shingo Sasaki**

*Department of Advanced Management of Cardiac Arrhythmias, Hirosaki University School of Medicine, Aomori, Japan*

### **O26-1 Scar related reentrant ventricular tachycardia just below the mechanical aortic valve**

**Emi Nakano**, Tomoo Harada, Yui Nakayama, Marika Yamada, Yasushi Takagi, Makoto Takano, Toshiyuki Furukawa, Yoshihiro Akashi

*Division of Cardiology, Department of Internal Medicine, St. Marianna University School of Medicine, Kanagawa, Japan*

### **O26-2 A case of a idiopathic narrow QRS ventricular tachycardia originating from left ventricle**

**Miwa Miyoshi**, Hajime Saeki, Takashi Mukai, Tomoka Tabata, Yasuhiro Inui, Miho Kuramoto, Shumpei Kosugi, Masami Nakagawa, Nobuyuki Ogasawara, Yusuke Kobayashi, Shinji Hasegawa

*JCHO Osaka Hospital, Osaka, Japan*

### **O26-3 A Case Report; Prolonged Overdrive Ventricular Pacing Suppressed and Overcame Electrical Storm Associated with Myocardial Infarction**

**Saori Tsukuda**, Keisuke Okawa, Fumi Yokohama, Tomoyuki Nishibe, Masahiro Sogo, Kazumasa Nosaka, Masahito Kajiya, Keiichi Mashima, Masayuki Doi, Kou Takeda

*The Department of Cardiovascular Internal Medicine, Kagawa Prefectural Central Hospital, Kagawa, Japan*

### **O26-4 Efficacy of high density mapping with the multipolar catheter for recurrent ventricular premature contraction arising from aortic sinus cusp: A case report**

**Hiroaki Nakamura**, Makoto Araki, Noboru Ichihara, Takamitsu Takagi, Jin Iwasawa, Akio Kuroj, Shinsuke Miyazaki, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka

*Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan*

### **O26-5 A case of ventricular fibrillation possibly associated with Brugada syndrome or anomalous aortic origin of right coronary artery from left coronary sinus**

**Naotaka Okamoto**, Yasuyuki Egami, Nobuhiko Makino, Ryu Shutta, Masami Nishino

*The Division of Cardiology, Osaka Rosai Hospital, Osaka, Japan*



# Thursday, 30 July

**Room 5** 11:50-12:50 Luncheon Seminar17 [LS17]

## **Advancing AF Management in CRT Patients ★**

**Chair** Kengo Kusano

*Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

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### **LS17-1 Advancing AF Management in CRT Patients**

**Christopher Piorkowski**

*Department of Electrophysiology, University of Dresden-Heart Center, Dresden, Germany*

(BIOTRONIK JAPAN)

## CRT 1

**Chairs** Akihiko Yotsukura

*Department of Cardiology, Hokko Memorial Hospital, Hokkaido, Japan*

Toshihiro Nakamura

*Department of Cardiology, NHO Kyushu Medical Center, Fukuoka, Japan*

### O27-1 Difficulty of LV lead implantation to optimal position of coronary sinus

Yoshifumi Ikeda, Ritsushi Kato, Takahiko Nagase, Yuichiro Shiki, Sayaka Tanaka, Naoko Yozawa, Shigeyuki Nishimura, Kazuo Matsumoto

*The Department of Cardiology, Saitama Medical University International Medical Center, Saitama, Japan*

### O27-2 Inappropriate detection of intraventricular conduction delay as lead failure due to increase of the sensing integrity counter in a patient with cardiac resynchronization therapy defibrillator

Kentaro Ozu, Hitoshi Minamiguchi, Hiroya Mizuno, Shozo Konishi, Tomoaki Nakano, Tomohito Ohtani, Yuji Okuyama, Osamu Yamaguchi, Yasushi Sakata

*Department of Cardiovascular Medicine Osaka University Graduate School of Medicine, Osaka, Japan*

### O27-3 Effect of minimized RV pacing and dynamic adaptation of AV/VV delay algorithm in cardiac resynchronization therapy: Primary experience of Adaptive CRT

Shingo Sasaki<sup>1</sup>, Takahiko Kinjo<sup>2</sup>, Yuji Ishida<sup>2</sup>, Taihei Ito<sup>2</sup>, Kenichi Sasaki<sup>2</sup>, Daisuke Horiuchi<sup>1</sup>, Masaomi Kimura<sup>2</sup>, Ken Okumura<sup>2</sup>

*<sup>1</sup>Department of Advance Management of Cardiac Arrhythmias, Hirosaki University School of Medicine, Aomori, Japan, <sup>2</sup>Department of Cardiology, Hirosaki University School of Medicine, Aomori, Japan*

### O27-4 The Impact of Cardiac Resynchronized Therapy to Dilated-Phase Hypertrophic Cardiomyopathy and The Prognostic Analysis After Implantation

Tomoaki Nakano, Hitoshi Minamiguchi, Hiroya Mizuno, Shozo Konishi, Kentaro Ozu, Tomohito Ohtani, Osamu Yamaguchi, Yuji Okuyama, Yasushi Sakata

*Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine, Osaka, Japan*

### O27-5 Impact of Relative Positions of RV and LV Leads on Long-Term Prognosis for CRT-D

Hiroyuki Kato<sup>1</sup>, Yasuya Inden<sup>1</sup>, Tadahiro Ito<sup>1</sup>, Yoshiaki Mizutani<sup>1</sup>, Tomoyuki Nagao<sup>1</sup>, Satoshi Okumura<sup>1</sup>, Satoshi Yanagisawa<sup>1</sup>, Toshihiko Yamamoto<sup>1</sup>, Shinji Ishikawa<sup>1</sup>, Naoki Yoshida<sup>1</sup>, Makoto Hirai<sup>2</sup>, Toyooki Murohara<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Nagoya University Graduate School of Medicine, Aichi, Japan, <sup>2</sup>Nagoya University School of Health Sciences, Aichi, Japan*

## CRT 2

**Chairs** Takashi Kurita

*Division of Cardiovascular Center, Department of Internal Medicine, Kinki University, Osaka, Japan*

Tetsuyuki Manaka

*Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

### O28-1 Time course of systolic and diastolic dyssynchrony assessed by gated myocardial perfusion single-photon emission computed tomography in patients undergoing cardiac resynchronization therapy

Rintaro Hojo<sup>1</sup>, Seiji Fukamizu<sup>1</sup>, Kiyotaka Yoshida<sup>1</sup>, Akihiro Nakada<sup>1</sup>, Iwanari Kawamura<sup>1</sup>, Ken Arai<sup>1</sup>, Toshiki Kaihara<sup>1</sup>, Satoshi Miyazawa<sup>1</sup>, Mikihiro Asaki<sup>1</sup>, Takeshi Kitamura<sup>1</sup>, Yuya Aoyama<sup>1</sup>, Kota Komiyama<sup>1</sup>, Tamotsu Tejima<sup>1</sup>, Mitsuhiro Nishizaki<sup>2</sup>, Masayasu Hiraoka<sup>3</sup>, Harumizu Sakurada<sup>4</sup>

*<sup>1</sup>The Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan, <sup>2</sup>Yokohama Minami Kyousai Hospital, Kanagawa, Japan, <sup>3</sup>Toride Kitasohma Medical Center Hospital, Ibaraki, Japan, <sup>4</sup>Tokyo Metropolitan Health and Medical Treatment Corporation Ohkubo Hospital, Tokyo, Japan*

### O28-2 Early improvement of dyssynchrony after CRT will achieve a late volumetric response of the left ventricle

Tadahiro Ito, Yasuya Inden, Tomoyuki Nagao, Yoshiaki Mizutani, Satoshi Okumura, Hiroyuki Kato, Satoshi Yanagisawa, Toshihiko Yamamoto, Shinji Ishikawa, Naoki Yoshida, Masato Hirai, Toyoaki Murohara

*Department of Cardiology, Nagoya University, Aichi, Japan*

### O28-3 QRS Width of Left Ventricular Pacing in Patients with Cardiac Resynchronization Therapy

Akinori Sato<sup>1</sup>, Naoko Ishida<sup>2</sup>, So Otsuki<sup>1</sup>, Yuki Hasegawa<sup>1</sup>, Nobue Yagihara<sup>1</sup>, Daisuke Izumi<sup>1</sup>, Takahito Hayakawa<sup>2</sup>, Takashi Okada<sup>2</sup>, Susumu Hasegawa<sup>2</sup>, Hiroshi Watanabe<sup>1</sup>, Tohru Minamino<sup>1</sup>

*<sup>1</sup>Department of Cardiovascular Biology and Medicine, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan, <sup>2</sup>Department of Medical Engineer, Niigata University Medical and Dental Hospital, Niigata, Japan*

### O28-4 Long-term Use Results of Adaptive Servo-Ventilation Therapy for Severe Chronic Heart Failure Patients with Cardiac Resynchronization Therapy

Taro Adachi<sup>1</sup>, Kaoru Tanno<sup>2</sup>, Ko Ogawa<sup>1</sup>, Yuya Nakamura<sup>1</sup>, Akinori Ochi<sup>1</sup>, Koichiro Inokuchi<sup>1</sup>, Yuta Chiba<sup>1</sup>, Shiro Kawasaki<sup>1</sup>, Yoshimi Onishi<sup>1</sup>, Yoshimasa Onuma<sup>1</sup>, Yumi Munetsugu<sup>1</sup>, Miwa Kikuchi<sup>1</sup>, Tatsuya Onuki<sup>1</sup>, Fumito Miyoshi<sup>1</sup>, Norikazu Watanabe<sup>1</sup>, Yoshino Minoura<sup>1</sup>, Mitsuharu Kawamura<sup>1</sup>, Taku Asano<sup>1</sup>, Youichi Kobayashi<sup>1</sup>

*<sup>1</sup>Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan, <sup>2</sup>Division of Cardiology, Koto-Toyosu Hospital, Showa University School of Medicine, Tokyo, Japan*

**O28-5**

**Temporal bi-ventricular pacing provides practical information on issues regarding CRT implantation**

**Yuki Kimura**, Moritoshi Funasako, Tetsuya Haruna, Takao Kato, Eisaku Nakane, Shoichi Miyamoto, Toshiaki Izumi, Moriaki Inoko

*Cardiovascular Center, Kitano Hospital, The Tazuke Kofukai Medical Research Institute, Osaka, Japan*

## Remote Monitoring

**Chairs** Eiichi Watanabe

*Department of Cardiology, Fujita Health University, Aichi, Japan*

**Nobuhiro Nishii**

*The Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan*

### **O29-1 Remote Monitoring Can Detect Asymptomatic Heart Failure Progression in Patients with Cardiac Resynchronization Therapy –Does It Improve the Outcome? –**

**Kentarou Okuda**<sup>1</sup>, Tomohide Ichikawa<sup>1</sup>, Masahide Harada<sup>1</sup>, Masayuki Koshikawa<sup>1</sup>, Mayumi Yamamoto<sup>1</sup>, Yoshihiro Sobue<sup>1</sup>, Asami Fujiwara<sup>2</sup>, Keisuke Tsujikawa<sup>2</sup>, Masaru Yamamoto<sup>2</sup>, Eiichi Watanabe<sup>1</sup>, Yukio Ozaki<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, <sup>2</sup>Joint Research Laboratory of Clinical Medicine, Fujita Health University, Aichi, Japan*

### **O29-2 Major First Manifestation of Lead Failure is Arrhythmic Events in Patients Followed by Remote Monitoring**

**Nobuhiro Nishii**<sup>1</sup>, Ryo Ueoka<sup>2</sup>, Akihito Miyoshi<sup>2</sup>, Motoki Kubo<sup>2</sup>, Hiroyasu Sugiyama<sup>2</sup>, Koji Nakagawa<sup>2</sup>, Satoshi Nagase<sup>2</sup>, Hiroshi Morita<sup>1</sup>, Hiroshi Ito<sup>2</sup>

*<sup>1</sup>Department of Cardiovascular Therapeutics, Okayama University Hospital, Okayama, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Okayama University Hospital, Okayama, Japan*

### **O29-3 Usefulness of remote monitoring of epicardial leads in congenital heart disease**

**Tomomi Nishimura**<sup>1</sup>, Keiko Toyohara<sup>1</sup>, Tsutomu Wada<sup>1</sup>, Yoshimichi Kudou<sup>1</sup>, Daiji Takeuchi<sup>1</sup>, Tetsuyuki Manaka<sup>2</sup>, Morio Shoda<sup>2</sup>, Toshio Nakanishi<sup>1</sup>

*<sup>1</sup>Department of Pediatric Cardiology, Tokyo Women's Medical University, Tokyo, Japan, <sup>2</sup>Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

### **O29-4 Invalid Cases in Remote Monitoring System at One Faculty**

**Yoshinao Sugai**<sup>1</sup>, Kentaro Aizawa<sup>1</sup>, Hayato Shindo<sup>2</sup>, Kohei Fukahori<sup>1</sup>, Satoru Takeda<sup>1</sup>, Etsuko Fushimi<sup>1</sup>, Toshiaki Takahashi<sup>1</sup>, Satoru Horiguchi<sup>1</sup>, Tohru Sakata<sup>2</sup>, Kazuma Tomiki<sup>1</sup>, Noriaki Ando<sup>2</sup>

*<sup>1</sup>Department of Cardiology, JA Akita Kouseiren Hiraka General Hospital, Akita, Japan, <sup>2</sup>Department of Medical Engineering, JA Akita Kouseiren Hiraka General Hospital, Akita, Japan*

### **O29-5 Efficacy and safety of very long term remote monitoring for pacemaker recipients**

**Satoshi Kawada**, Sho Tsushima, Shinpei Fujita, Tomofumi Mizuno

*Cardiovascular Medicine, Fukuyama City Hospital, Hiroshima, Japan*

O29-6

## **Efficacy of Remote Monitoring System in Heart Failure Patients with Cardiac Implantable Electronic Device**

**Makoto Takano**, Tomoo Harada, Yasushi Takagi, Marika Yamada, Emi Nakano, Yukako Takimura, Hisao Matsuda, Satoru Nishio, Toshiyuki Furukawa, Hidekazu Miyazaki, Naoki Matsumoto, Yoshihiro Akashi

*The Department of Cardiology, St. Marianna University School of Medicine, Kanagawa, Japan*

# Thursday, 30 July

Room 5 18:30-21:00 Open Lecture [OL]

## 薬剤師として知っておきたい抗不整脈薬・抗凝固薬の基礎知識

座長 上野和行  
新潟薬科大学薬学部薬物動態学研究室

新 博次  
日本医科大学多摩永山病院

開会の言葉  
上野和行  
新潟薬科大学薬学部薬物動態学研究室

### OL1 抗不整脈薬：薬理作用から見た安全な使い方

栗田隆志  
近畿大学医学部附属病院心臓血管センター

### OL2 抗不整脈薬の薬物動態とTDMの要点

志賀 剛  
東京女子医科大学循環器内科

### OL3 心房細動における適切な抗凝固療法 —新規経口抗凝固薬とワルファリンの使い分け—

矢坂正弘  
国立病院機構九州医療センター脳血管・神経内科

まとめ

新 博次  
日本医科大学多摩永山病院

(第一三共株式会社)

## CRT 3

**Chairs** Keiji Yamamoto

*Department of Cardiology, Saitama Medical University Hospital, Saitama, Japan*

**Kenji Ando**

*Department of Cardiology, Kokura Memorial Hospital, Fukuoka, Japan*

### O30-1 **Impact of catheter ablation for atrial tachyarrhythmia on inappropriate shocks in patients with implantable cardioverter defibrillator and cardiac resynchronization therapy-defibrillator**

**Kentaro Minami**, Kohki Nakamura, Shigeto Naito, Eri Goto, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Satoru Shimizu, Toshiaki Yano, Masahiro Nakano, Takehito Sasaki, Koji Kumagai, Shigeru Oshima

*Gunma Cardiovascular Center, Gunma, Japan*

### O30-2 **Lethal arrhythmic episodes and the cause of death after the implantation of CRT-P**

**Ikuko Togashi**, Toshiaki Sato, Kyoko Soejima, Akiko Ueda, Yosuke Miwa, Satoshi Higuchi, Kyoko Hoshida, Noriko Matsushita, Yuichi Momose, Hideaki Yoshino

*Department of Cardiology, Kyorin University School of Medicine, Tokyo, Japan*

### O30-3 **Influence of device optimization on electrocardiographic changes in cardiac resynchronization therapy**

**Yuko Toyoshima**, Koichi Inoue, Koji Tanaka, Takafumi Oka, Nobuaki Tanaka, Yoshiyuki Orihara, Katsuomi Iwakura, Kenshi Fujii

*Cardiovascular Center, Sakurabashi-Watanabe Hospital, Osaka, Japan*

### O30-4 **Long-term Follow-up Data of Echocardiography in Patients Implanted with Cardiac Resynchronization Therapy Defibrillator**

**Kazunori Kashiwase**, Ryohei Amiya, Masato Okada, Akio Hirata, Yasunori Ueda

*Cardiovascular Division, Osaka Police Hospital, Osaka, Japan*

### O30-5 **A Case Report of a Successful CRT-D Implantation in a Patient with Corrected Transposition of Great Arteries ; A Long Term Survival Case**

**Hideaki Sato**, Mikio Yuhara, Masafumi Nakayama, Takashi Uchiyama

*Toda Chuo General Hospital, Saitama, Japan*



## CRT 4★

**Chairs** Takashi Noda

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

Ritsuko Kohno

*Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan*

### O31-1 Restoration of ventricular septal hypoperfusion by cardiac resynchronization therapy in patients with permanent right ventricular pacing

Michio Ogano<sup>1</sup>, Yu-ki Iwasaki<sup>2</sup>, Jun Tanabe<sup>1</sup>, Kenji Yodogawa<sup>2</sup>, Meiso Hayashi<sup>2</sup>, Yasushi Miyauchi<sup>2</sup>, Wataru Shimizu<sup>2</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Shizuoka Medical Center, Shizuoka, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan

### O31-2 Efficacy of Cardiac Resynchronization Therapy in Elderly Patients

Hideya Suehiro<sup>1</sup>, Kazumasa Adachi<sup>1</sup>, Yasutaka Hirayama<sup>1</sup>, Takeshi Matsuura<sup>1</sup>, Tomomi Akita<sup>1</sup>, Yukinori Kato<sup>1</sup>, Hiroki Takata<sup>1</sup>, Kohei Kamemura<sup>1</sup>, Akira Matsuura<sup>1</sup>, Masahito Kawata<sup>1</sup>, Susumu Sakamoto<sup>1</sup>, Rieko Tsuboi<sup>2</sup>, Kenji Fukui<sup>2</sup>

<sup>1</sup>Division of Cardiology, Akashi Medical Center, Hyogo, Japan, <sup>2</sup>Division of Clinical Engineering, Akashi Medical Center, Hyogo, Japan

### O31-3 Can Cardiac Resynchronization Therapy be a Rescue Therapy for Inotrope-Dependent Advanced Heart Failure?

Teruhiko Imamura<sup>1</sup>, Koichiro Kinugawa<sup>1</sup>, Osamu Kinoshita<sup>2</sup>, Kan Nawata<sup>2</sup>, Minoru Ono<sup>2</sup>

<sup>1</sup>Department of Therapeutic Strategy for Heart Failure, Graduate School of Medicine, University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Cardiac Surgery, Graduate School of Medicine, University of Tokyo, Tokyo, Japan

### O31-4 Evaluation of outcome for the timing of CRT implantation

Yoshiyuki Doi, Satoki Fukae, Takashi Ishimatsu, Shuji Arakawa, Youichi Tomichi, Hiroaki Kawano, Koji Maemura

*Department of Cardiovascular Medicine, Nagasaki University Hospital, Nagasaki, Japan*

### O31-5 The long-term prognosis of cardiac resynchronization therapy can be predict by Body-surface QRST integral mapping

Go Haraguchi, Masatsugu Ohe, Eiichi Takii, Shogo Ito, Jun Kumanomido, Hisashi Adachi, Yoshihiro Fukumoto

*Department of Internal Medicine, Division of Cardio-Vascular Medicine, Kurume University School of Medicine, Fukuoka, Japan*

## Imaging 1

**Chairs** Hirosuke Yamaji

*Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan*

Kiyoshi Ohtomo

### O32-1 Associations between Biatrial Total Activation Time and the Atrial Electromechanical Interval Determined by Transthoracic Echocardiography

Yoshiyuki Hama<sup>1</sup>, Haruka Fujimaki<sup>1</sup>, Taishi Kuwahara<sup>2</sup>, Noriko Eguchi<sup>1</sup>, Ikuto Terabayashi<sup>1</sup>, Kohei Kamishita<sup>1</sup>, Bi Katsu<sup>1</sup>, Shuzo Tanaka<sup>1</sup>, Norimasa Tonoike<sup>1</sup>, Kyokushi Hou<sup>1</sup>, Tai Sekine<sup>1</sup>, Yuji Matsudo<sup>1</sup>, Masashi Yamamoto<sup>1</sup>, Toshiharu Himi<sup>1</sup>

*<sup>1</sup>Division of Cardiology, Kimitsu Chuo Hospital, Chiba, Japan, <sup>2</sup>Cardiovascular Center, Yokosuka Kyouzai Hospital, Kanagawa, Japan*

### O32-2 The association between left atrial remodeling assessed by cardiac magnetic resonance imaging and recurrence of atrial fibrillation in patients underwent AF ablation

Yu Kumagai, Tadateru Iwayama, Takanori Arimoto, Naoaki Hashimoto, Daisuke Ishigaki, Tetsu Watanabe, Isao Kubota

*Department of Cardiology, Pulmonology, and Nephrology, Yamagata University School of Medicine, Yamagata, Japan*

### O32-3 Contrast filling defect in the left atrial appendage on cardiac CT image in patients undergoing catheter ablation for atrial fibrillation: Its causative factor and interpretation

Kenichi Sasaki, Shingo Sasaki, Masaomi Kimura, Daisuke Horiuchi, Taihei Itoh, Yuji Ishida, Takahiko Kinjo, Ken Okumura

*Department of Cardiology, University of Hirosaki, Aomori, Japan*

### O32-4 Differences in prevalence and degree of the abnormal early systolic contraction in left bundle branch block with and without prolonged QRS duration ( $\geq 150$ ms)

Hideyuki Hara<sup>1</sup>, Toyoji Kaida<sup>2</sup>, Ai Horiguchi<sup>2</sup>, Nobuhiro Sato<sup>2</sup>, Horoshi Ito<sup>1</sup>, Shinichi Niwano<sup>2</sup>, Junya Ako<sup>2</sup>

*<sup>1</sup>Cardiology, Numazu City Hospital, Shizuoka, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Kitasato University School of Medicine, Kanagawa, Japan*

Thursday, 30 July

O32-5

**The Diagnostic Value of Positron Emission Tomography in Patients with Cardiac Sarcoidosis**

**Koji Higuchi<sup>1</sup>**, Hirotaka Muramoto<sup>1</sup>, Atsushi Suzuki<sup>1</sup>, Yuya Utsugi<sup>1</sup>, Sawa Matsumoto<sup>1</sup>, Keiko Tachibana<sup>1</sup>, Takayuki Onishi<sup>1</sup>, Isshi Kobayashi<sup>1</sup>, Yuko Onishi<sup>1</sup>, Shigeo Umezawa<sup>1</sup>, Akihiro Niwa<sup>1</sup>, Kenzo Hirao<sup>2</sup>

<sup>1</sup>Department of Cardiology, Hiratsuka Kyosai Hospital, Kanagawa, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

**Room 6** 11:50-12:50 Luncheon Seminar18 [LS18]

## **Sleep Apnea Syndrome and Arrhythmia**

**Chair** **Kaoru Sugi**

*Division of Cardiovascular Medicine, Toho University Ohashi Medical Center, Tokyo, Japan*

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**LS18-1** **Sleep Apnea Syndrome and Arrhythmia**

**Chikashi Suga**

*Suga Clinic / Division of Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan*

*(Philips Respironics GK)*

## Experimental Study 2

**Chairs** Katsushige Ono

*Department of Pathophysiology, Oita University School of Medicine, Oita, Japan*

Jong-kook Lee

*Department of Cardiovascular Regenerative Medicine, Osaka University Graduate School of Medicine, Osaka, Japan*

### O33-1 Analysis of trajectory of phase singularity with spatial heterogeneity of myocardial intracellular Ca<sup>2+</sup> signal duration

Norifusa Tachiyanagi<sup>1</sup>, Tatsuhiko Arafune<sup>1</sup>, Hiroo Noguchi<sup>1</sup>, Nitaro Shibata<sup>2</sup>, Takashi Ogawa<sup>3</sup>, Masatoshi Yamazaki<sup>3</sup>, Haruo Honjo<sup>3</sup>, Kaichiro Kamiya<sup>3</sup>, Akihiko Homma<sup>1</sup>, Akio Funakubo<sup>1</sup>

*<sup>1</sup>School of Science and Engineering, Tokyo Denki University, Tokyo, Japan, <sup>2</sup>Shinjuku Mitsui Building Clinic, Tokyo, Japan, <sup>3</sup>Research Institute of Environmental Medicine, Nagoya University, Aichi, Japan*

### O33-2 Role of impedance monitoring during Bipolar (Bi) radiofrequency ablation (RF). Observations from the experimental study

Osamu Saitoh<sup>1</sup>, Katsuya Suzuki<sup>2</sup>, Kana Oya<sup>1</sup>, Asami Kashiwa<sup>3</sup>, Yukio Hosaka<sup>3</sup>, Hiroshi Furushima<sup>4</sup>, Masaomi Chinushi<sup>1</sup>

*<sup>1</sup>Graduate School of Health Sciences, Niigata University, Niigata, Japan, <sup>2</sup>Kido Hospital, Niigata, Japan, <sup>3</sup>Niigata City General Hospital, Niigata, Japan, <sup>4</sup>Furushima Clinic, Niigata, Japan*

### O33-3 Dynamical mechanisms of phase 2 early afterdepolarizations in long QT syndromes: Insights from slow-fast decomposition analysis of mathematical models for human ventricular myocytes

Yasutaka Kurata<sup>1</sup>, Ichiro Hisatome<sup>2</sup>

*<sup>1</sup>Department of Physiology, Kanazawa Medical University, Ishikawa, Japan, <sup>2</sup>Division of Regenerative Medicine and Therapeutics, Institute of Regenerative Medicine and Biofunction, Tottori University Graduate School of Medical Science, Tottori, Japan*

### O33-4 Long-term follow-up of 110 sporadic cases with arrhythmogenic right ventricular cardiomyopathy

Yoshitaka Kimura, Takashi Noda, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takeshi Aiba, Shiro Kamakura, Kengo Kusano

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

### O33-5 High Density Mapping of Post-infarction Cardiomyopathy Using a Multipolar Basket Catheter in a Swine Model

Yasuaki Tanaka, Edward P. Gerstenfeld

*Department of Medicine, Section of Cardiac Electrophysiology, University of California San Francisco, San Francisco, CA, USA*

## Ion Channel 2★

**Chairs Haruo Honjo**

*Research Institute of Environmental Medicine, Nagoya University, Aichi, Japan*

**Yoshino Minoura**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### **O34-1 Dose-Sensitive Relationship of an SCN10A Pore Mutation and Enhancer SNPs Identified in a Brugada Syndrome Family with Different Expressivity**

**Taisuke Ishikawa<sup>1</sup>, Kimie Ohkubo<sup>2</sup>, Ryo Yamaguchi<sup>1</sup>, Daniel T. Harrell<sup>1</sup>, Yukiomi Tsuji<sup>1</sup>, Ichiro Watanabe<sup>2</sup>, Naomasa Makita<sup>1</sup>**

*<sup>1</sup>Department of Molecular Physiology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan,*

*<sup>2</sup>Department of Cardiovascular Medicine, Nihon University Graduate School of Medicine, Tokyo, Japan*

### **O34-2 Patient-Specific Induced Pluripotent Stem-Cell Models for Long QT Syndrome with the missense mutation in the CACNA1C gene**

**Takeshi Harita<sup>1</sup>, Takeru Makiyama<sup>1</sup>, Kenichi Sasaki<sup>1</sup>, Suguru Nishiuchi<sup>1</sup>, Mamoru Hayano<sup>1</sup>, Yuta Yamamoto<sup>1</sup>, Hirohiko Kohjitani<sup>1</sup>, Jiarong Chen<sup>1</sup>, Yimin Wuriyanghai<sup>1</sup>, Yoshinori Yoshida<sup>2</sup>, Seiko Ohno<sup>3</sup>, Minoru Horie<sup>3</sup>, Akihiko Shimizu<sup>4</sup>, Takeshi Kimura<sup>1</sup>**

*<sup>1</sup>Kyoto University Graduate School of Medicine, Department of Cardiovascular Medicine, Kyoto, Japan, <sup>2</sup>Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan, <sup>3</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan, <sup>4</sup>Division of Cardiology, Department of Medicine and Clinical Science and Faculty of Health Sciences, Yamaguchi Graduate School of Medicine, Yamaguchi, Japan*

### **O34-3 Meta-analysis of Short QT Syndrome discloses genotype-dependent clinical characteristics in age of manifestation and arrhythmia complications**

**Daniel T. Harrell<sup>1</sup>, Takashi Ashihara<sup>2</sup>, Taisuke Ishikawa<sup>1</sup>, Andrea Mazzanti<sup>3</sup>, Kazuhiro Takahashi<sup>4</sup>, Yasushi Oginosawa<sup>5</sup>, Haruhiko Abe<sup>6</sup>, Koji Maemura<sup>7</sup>, Naokata Sumitomo<sup>8</sup>, Kikuya Uno<sup>9</sup>, Makoto Takano<sup>10</sup>, Silvia G. Priori<sup>3</sup>, Naomasa Makita<sup>1</sup>**

*<sup>1</sup>Department of Molecular Physiology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, <sup>2</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Heart Rhythm Center, Shiga, Japan, <sup>3</sup>Molecular Cardiology, IRCCS Salvatore Maugeri Foundation, Pavia, Italy, <sup>4</sup>Department of Pediatric Cardiology, Okinawa Children's Medical Center, Okinawa, Japan, <sup>5</sup>Second Department of Internal Medicine, University of Occupational and Environmental Health, Fukuoka, Japan, <sup>6</sup>Department of Heart Rhythm Management, University of Occupational and Environment Health, Fukuoka, Japan, <sup>7</sup>Department of Cardiovascular Medicine, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, <sup>8</sup>Department of Pediatric Cardiology, Saitama International Medical Center, Saitama, Japan, <sup>9</sup>Sapporo Heart Center, Hokkaido, Japan, <sup>10</sup>Department of Physiology, Kurume University School of Medicine, Fukuoka, Japan*

# Thursday, 30 July

**O34-4 S107 rescues arrhythmogenic phenotype in a patient-specific induced stem cell-based model of catecholaminergic polymorphic ventricular tachycardia**

**Kenichi Sasaki**<sup>1</sup>, Takeru Makiyama<sup>1</sup>, Yoshinori Yoshida<sup>2</sup>, Yuta Yamamoto<sup>1</sup>, Mamoru Hayano<sup>1</sup>, Suguru Nishiuchi<sup>1</sup>, Takeshi Harita<sup>1</sup>, Yimin Wuriyanghai<sup>1</sup>, Jiarong Chen<sup>1</sup>, Tsukasa Kamakura<sup>1</sup>, Seiko Ohno<sup>3</sup>, Minoru Horie<sup>3</sup>, Shinya Yamanaka<sup>2</sup>, Takeshi Kimura<sup>1</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>2</sup>Kyoto University iPS Cell Research and Application, Kyoto, Japan, <sup>3</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan

**O34-5 A novel ACTC1 gene mutation in a young boy with left ventricular noncompaction and lethal ventricular arrhythmias**

**Yoko Yoshida**<sup>1</sup>, Shuichiro Yoshida<sup>1</sup>, Tsugutoshi Suzuki<sup>1</sup>, Yoshihide Nakamura<sup>1</sup>, Yukiko Hata<sup>2</sup>, Naoki Nishida<sup>2</sup>

<sup>1</sup>Department of Pediatric Electrophysiology, Osaka City General Hospital, Osaka, Japan, <sup>2</sup>Department of Legal Medicine, Graduate School of Medicine, University of Toyama, Toyama, Japan

## Ion Channel 3

**Chairs** Tetsushi Furukawa

*Department of Bio-informational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan*

**Takeshi Aiba**

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

### O35-1 Azelnidipine reduces cell-surface expression of Cav1.2 channel

Fumiaki Nasu<sup>1</sup>, Kazuya Kurakami<sup>2</sup>, Kuniaki Ishii<sup>1</sup>

*<sup>1</sup>Department of Pharmacology, Yamagata University, Yamagata, Japan, <sup>2</sup>Department of Otolaryngology and Neck Surgery, Yamagata University, Yamagata, Japan*

### O35-2 Phenotype and genotype of SCN5A mutation associated sick sinus syndrome in child

Daiji Takeuchi<sup>1</sup>, Yoshiyuki Furutani<sup>1</sup>, Tetsuyuki Manaka<sup>2</sup>, Keiko Toyohara<sup>1</sup>, Morio Shoda<sup>1</sup>, Toshio Nakanishi<sup>1</sup>

*<sup>1</sup>The Department of Pediatric Cardiology, Tokyo Women's Medical University, Tokyo, Japan, <sup>2</sup>The Department of Cardiology, Tokyo women's Medical University, Tokyo, Japan*

### O35-3 Enhanced fast-inactivated state stability of cardiac sodium channels by a novel voltage sensor SCN5A mutation R1632C as a cause of multiple electrophysiological phenotypes

Tadashi Nakajima, Yoshiaki Kaneko, Akihiro Saito, Masaki Ota, Takafumi Iijima, Masahiko Kurabayashi

*Department of Cardiovascular Medicine, Gunma University Graduate School of Medicine, Gunma, Japan*

### O35-4 Combination of genetic markers predicts Atrial Fibrillation susceptibility in Japanese population

Lian Liu<sup>1</sup>, Yusuke Ebana<sup>1</sup>, Junichi Nitta<sup>2</sup>, Yoshihide Takahashi<sup>3</sup>, Shinsuke Miyazaki<sup>4</sup>, Tetsushi Furukawa<sup>1</sup>

*<sup>1</sup>Department of Bioinformational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, <sup>2</sup>Saitama Red Cross Hospital, Saitama, Japan, <sup>3</sup>National Disaster Medical Center, Tokyo, Japan, <sup>4</sup>Tsuchiura Kyodo Hospital, Ibaraki, Japan*

### O35-5 Cardiac Manifestations of Fabry patients in early stage

Hiromi Goto, Fuji Somura, Yoshiyuki Kataoka, Dai Yamamoto

*Nagoya Central Hospital, Aichi, Japan*



*Thursday, 30 July*

**Room 7** 8:30-9:30 Educational Lecture6 [EL6]

## **New Technology of CIED ★**

**Chair** Toshiyuki Ishikawa

*Department of Cardiovascular Medicine, Yokohama City University School of Medicine, Kanagawa, Japan*

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**EL6** **New Technology of CIED**

**Oussama Wazni**

*Cleveland Clinic, USA*

**Room 7** 9:30-10:30 Educational Lecture7 [EL7]

## **Implantable Left Ventricular Assist Device Therapy for Heart Failure—Can It Become an Destination Therapy?**

**Chair** **Hideo Mitamura**  
*Tachikawa Hospital, Tokyo, Japan*

### **EL7** **Implantable Left Ventricular Assist Device Therapy for Heart Failure— Can it become an destination therapy?**

**Shunei Kyo**<sup>1</sup>, Takashi Nishimura<sup>1</sup>, Koichiro Kinugawa<sup>2</sup>, Minoru Ono<sup>3</sup>

<sup>1</sup>*Department of Cardiac Surgery, Tokyo Metropolitan Geriatric Hospital and Institute of Gerontology, Tokyo, Japan,*  
<sup>2</sup>*Department of Therapeutic Strategy for Heart Failure, University of Tokyo Hospital, Tokyo, Japan,* <sup>3</sup>*Department of Cardiothoracic Surgery, University of Tokyo Hospital, Tokyo, Japan*

*Thursday, 30 July*

**Room 7** 10:30-11:30 Educational Lecture8 [EL8]

## **Driving Restriction by Revision of Japan Road and Traffic Law in Patients with Cardiac Arrhythmias**

**Chair** Masataka Sumiyoshi  
*Juntendo University Nerima Hospital, Tokyo, Japan*

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**EL8** **Driving Restriction by Revision of Japan Road and Traffic Law in Patients with Cardiac Arrhythmias**

**Haruhiko Abe**  
*Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan*

**Room 7** 11:50-12:50 Luncheon Seminar19 [LS19]

## **Clinical Evaluation of a Japan-Made Irrigation Catheter**

**Chair** Kenzo Hirao

*Tokyo Medical and Dental University, Heart Rhythm Center, Tokyo, Japan*

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**LS19-1** **Clinical Evaluation of a Japan-Made Irrigation Catheter**

**Hiroshi Nakagawa**

*University of Oklahoma Health Sciences Center, USA*

*(Japan Lifeline Co., Ltd.)*

*Thursday, 30 July*

**Room 7** 14:10-15:10 Educational Lecture9 [EL9]

## **Five Things to Do for Heart Failure Patients before CRT Implantation**

**Chair** **Shinichi Momomura**

*Cardiovascular Department, Saitama Medical Center, Jichi Medical University, Saitama, Japan*

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**EL9** **Five Things to Do for Heart Failure Patients before CRT Implantation**

**Yasuki Kihara**

*Department of Cardiovascular Medicine, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan*

座長 高木雅彦  
大阪市立大学大学院医学研究科循環器内科学

今井克彦  
広島大学病院心臓血管外科

選考委員長  
石川利之  
横浜市立大学医学部循環器腎臓内科学

選考委員  
庄田守男  
東京女子医科大学循環器内科  
高橋尚彦  
大分大学医学部循環器内科・臨床検査診断学  
野田 崇  
国立循環器病研究センター心臓血管内科

CDR1 ペースメーカー介在性頻拍 (PMT) を発症したVDDに対し、設定変更により著明な心不全改善が得られた1例

青木公也, 森田裕介  
セント・ジュード・メディカル株式会社

CDR2 1000件に及ぶメドトロニックの電磁干渉調査から見えてきたこと

上総寛人, 清水咲野, 伊藤寿昭, 藤本 裕  
日本メドトロニック株式会社CRHF事業部

CDR3 CIEDs植込み患者の心電図モニタリング時の電磁干渉

高橋聖智<sup>1</sup>, 原田 照<sup>1</sup>, 宮崎 隆<sup>2</sup>  
<sup>1</sup>フクダ電子株式会社, <sup>2</sup>株式会社フィデスワン

CDR4 デバイスの環境調査における報告

相沢俊祐, 馬場孝成  
バイオトロニックジャパン株式会社

CDR5 ペースメーカー患者への重粒子放射線治療の影響と対策

小池 裕<sup>1</sup>, 吉田 聡<sup>1</sup>, 小川暢之<sup>1</sup>, 中山雅俊<sup>2</sup>, 佐野真友<sup>2</sup>, 渋谷 圭<sup>3</sup>, 小山佳成<sup>3</sup>, 金古善明<sup>4</sup>  
<sup>1</sup>株式会社エムシー, <sup>2</sup>群馬大学医学部附属病院ME機器管理室, <sup>3</sup>群馬大学重粒子線医学研究センター, <sup>4</sup>群馬大学医学部循環器内科

## CDR6 ホームモニタリング機能により早期発見できたEMIによるICD不適切作動の1例

田中伸幸<sup>1</sup>, 高橋憲一<sup>1</sup>, 中島正雄<sup>1</sup>, 大村昌人<sup>2</sup>

<sup>1</sup>バイオエレクトロニクスジャパン株式会社営業戦略企画部, <sup>2</sup>山口県済生会下関総合病院

## CDR7 True bipolarからintegrated bipolarに変更することで不適切作動を回避できている一例

塩谷周平<sup>1</sup>, 三浦康祐<sup>1</sup>, 佐藤仰太郎<sup>1</sup>, 鈴木信都<sup>1</sup>, 佐藤孝博<sup>1</sup>, 荒川博之<sup>1</sup>, 川岸 浩<sup>1</sup>, 赤井澤義紀<sup>1</sup>, 矢口和彦<sup>1</sup>, 石澤 真<sup>1</sup>, 有本貴範<sup>2</sup>, 岩山忠輝<sup>2</sup>, 石垣大輔<sup>2</sup>, 橋本直明<sup>2</sup>, 熊谷 遊<sup>2</sup>, 渡邊 哲<sup>2</sup>, 久保田功<sup>2</sup>

<sup>1</sup>三栄カルディオ株式会社, <sup>2</sup>山形大学医学部内科学第一講座

## CDR8 4極リードを使用したCRT-Dにおいて閾値判定に難渋した1例

上総寛人<sup>1</sup>, 谷本耕司郎<sup>2</sup>, 菊地大視<sup>1</sup>

<sup>1</sup>日本メドトロニック株式会社CRHF事業部, <sup>2</sup>国立病院機構東京医療センター

## CDR9 高除細動閾値症例に対するICDシステム構成に関する考察

鬼塚啓一<sup>1</sup>, 柏 徹雄<sup>1</sup>, 堀部健太郎<sup>1</sup>, 中山哲也<sup>1</sup>, 伊藤寿昭<sup>1</sup>, 阿部芳久<sup>2</sup>, 寺田 健<sup>2</sup>

<sup>1</sup>日本メドトロニック株式会社, <sup>2</sup>秋田県立脳血管研究センター

## CDR10 High DFTに於いてDeft Responseが有効であった1例

成瀬 護, 金野吉倫

セントジュードメディカル株式会社

**Room 8** 8:30-9:30 Debate5 [D5]

## Should we perform catheter ablation for the patients with chronic AF?

**Chair** **Teiichi Yamane**

*Division of Cardiology, Jikei University School of Medicine, Tokyo, Japan*

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**D5-1** **Pro**

**Taku Asano**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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**D5-2** **Con**

**Taishi Kuwahara**

*Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan*



## AF Clinical Study 2

**Chairs** Yukei Higashi

*Department of Cardiology, Okamura Memorial Hospital, Sizuoka, Japan*

Shigeru Ikeguchi

*Department of Cardiology, Shiga Medical Center for Adults, Shiga, Japan*

### O36-1 The impact of recurrences of atrial fibrillation during the blanking period after pulmonary vein isolation

Yosuke Murase, Yasuhiro Ogawa, Hajime Imai, Seifuku Kyo, Yosuke Negishi, Noriaki Otake, Hiroaki Sawada, Yoshihito Arao, Keisuke Sakakibara, Katsuhiro Kawaguchi

*The Department of Cardiology, Komaki City Hospital, Aichi, Japan*

### O36-2 Incidence and Significance of Early Recurrence After Catheter Ablation of Paroxysmal Atrial Fibrillation

Jin Teranishi, Katsunori Okajima, Akira Shimane, Kunihiro Kiuchi, Kiminobu Yokoi, Kosuke Aoki, Misato Chimura, Hideo Tsubata, Taishi Miyata, Yuki Matsuoka, Takayoshi Toba, Shogo Ohishi, Takahiro Sawada, Yasue Tsukishiro, Tetsuuri Ohnishi, Seiichi Kobayashi, Shinichiro Yamada, Yasuyo Taniguchi, Yoshinori Yasaka, Hiroya Kawai

*Himeji Cardiovascular Center, Hyogo, Japan*

### O36-3 Does three-month "blanking period" also exist after the second session of atrial fibrillation ablation?

Yuhi Fujimoto, Meiso Hayashi, Eiichiro Oka, Kanako Hagiwara, Kenta Takahashi, Ippei Tsuboi, Hiroshi Hayashi, Kenji Yodogawa, Yu-ki Iwasaki, Yasushi Miyauchi, Wataru Shimizu

*Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan*

### O36-4 Pre-procedural Heart Rhythm Predicts Recurrence of Atrial Fibrillation in Patients Undergoing Pulmonary Vein Isolation

Kenichi Yokoyama, Keiichi Inada, Kenichi Tokutake, Keiichi Itou, Mika Hioki, Ryohsuke Narui, Shin-ichi Tanigawa, Seigo Yamashita, Michifumi Tokuda, Seiichiro Matsuo, Kenichi Sugimoto, Michihiro Yoshimura, Teiichi Yamane

*Cardiology, Jikei University, Tokyo, Japan*

### O36-5 Predictors of Arrhythmia Recurrence after Termination of Persistent Atrial Fibrillation by Catheter Ablation

Shinsuke Iwai<sup>1</sup>, Yoshihide Takahashi<sup>1</sup>, Naoyuki Miwa<sup>1</sup>, Mayumi Masumura<sup>1</sup>, Yasuhiro Sato<sup>1</sup>, Kenzo Hirao<sup>2</sup>, Mitsuaki Isobe<sup>3</sup>

<sup>1</sup>Department of Cardiovascular Medicine, National Disaster Medical Center, Tokyo, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

## AF Ablation 6

**Chairs Koichiro Ejima**

*Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

**Yasuteru Yamauchi**

*Department of Cardiovascular Medicine, Japanese Red Cross Musashino Hospital, Tokyo, Japan*

### **O37-1 Low Voltage Zone-guided Substrate Modification in Patients with Non-paroxysmal Atrial Fibrillation: A Feasibility Study**

**Takanori Yamaguchi<sup>1</sup>, Shiro Nakahara<sup>2</sup>, Takeshi Tsuchiya<sup>1</sup>, Akira Fukui<sup>1</sup>, Yasutsugu Nagamoto<sup>3</sup>, Naohiko Takahashi<sup>4</sup>**

*<sup>1</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>2</sup>Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan, <sup>3</sup>Saga-ken Medical Centre Koseikan, Saga, Japan, <sup>4</sup>Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

### **O37-2 Low-voltage area in anterior left atrium was frequently related to left atrial tachycardia in patients without any other cardiovascular histories**

**Yuichiro Sakamoto, Kohei Yamashiro, Daisuke Yoshimoto, Kazuto Kujira, Mitsuaki Itoh, Takahiko Suzuki**

*Cardiovascular Medicine, Toyohashi Heart Center, Aichi, Japan*

### **O37-3 Association between Rotational Activations (RotA) and Low Voltage Zone (LVZ) and Effect of LVZ Ablation in Patients with Non-Paroxysmal Atrial Fibrillation**

**Takanori Yamaguchi<sup>1</sup>, Shiro Nakahara<sup>2</sup>, Takeshi Tsuchiya<sup>1</sup>, Akira Fukui<sup>1</sup>, Yasutsugu Nagamoto<sup>3</sup>, Naohiko Takahashi<sup>4</sup>**

*<sup>1</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>2</sup>Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan, <sup>3</sup>Saga-ken Medical Centre Koseikan, Saga, Japan, <sup>4</sup>Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

### **O37-4 Relationship between left atrial wall thickness by computed tomography and voltage amplitude and procedural parameters in patients undergoing radiofrequency catheter ablation of paroxysmal atrial fibrillation**

**Eri Goto, Kohki Nakamura, Shigeto Naito, Kentaro Minami, Takehito Sasaki, Satoru Shimizu, Toshiaki Yano, Masahiro Nakano, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Koji Kumagai, Shigeru Oshima**

*Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*

Thursday, 30 July

**O37-5 Predictive Factors of Atrial Fibrillation Recurrence After First Pulmonary Vein Isolation of Persistent Atrial Fibrillation**

**Kazuhiro Yajima**<sup>1</sup>, Yuichiro Yamase<sup>1</sup>, Junki Yamamoto<sup>1</sup>, Naoki Yoshioka<sup>1</sup>, Chikara Ueyama<sup>1</sup>, Nobukatsu Akita<sup>1</sup>, Toshimasa Shigeta<sup>1</sup>, Hideki Horibe<sup>1</sup>, Takeshi Hibino<sup>1</sup>, Taizo Kondo<sup>1</sup>, Nobuyuki Ohte<sup>2</sup>

<sup>1</sup>Department of Cardiology, Gifu Prefectural Tajimi Hospital, Gifu, Japan, <sup>2</sup>Department of Cardio-Renal Medicine and Hypertension, Nagoya City University Graduate School of Medical Sciences, Aichi, Japan

**Room 8** 11:50-12:50 Luncheon Seminar20 [LS20]

## **Results from the Prospective Registry of Patients Using the Wearable Defibrillator(WEARIT- II Registry) ★**

**Chair Kazuo Matsumoto**

*Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan*

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**LS20-1 Results from the Prospective Registry of Patients Using the Wearable Defibrillator(WEARIT- II Registry)**

**Valentina Kutyifa**

*University of Rochester Medical Center, USA*

*(ASAHI KASEI ZOLL MEDICAL CORPORATION)*

# Thursday, 30 July

**Room 8** 14:10-15:10 Debate6 [D6]

## Is DFT test necessary for ICD implant?

**Chair** Hisashi Yokoshiki

*Department of Cardiovascular Medicine, Hokkaido University Hospital, Hokkaido, Japan*

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**D6-1** **Pro**

**Yoshihisa Abe**

*Department of Cardiology, Research Institute for Brain and Blood Vessels Akita, Akita, Japan*

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**D6-2** **Con**

**Takeshi Mitsuhashi**

*Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan*

## AF Ablation 7

**Chairs** Akihiro Yoshida

*Division of Cardiovascular Medicine, Department of Internal Medicine, Kitaharima Medical Center, Hyogo, Japan*

Takahiko Nagase

*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

### O38-1 Force time index of VisiTag module is useful in reducing residual conduction gap in circumferential pulmonary vein isolation for atrial fibrillation

Noriyori Kaname<sup>1</sup>, Masaomi Kimura<sup>2</sup>, Daisuke Horiuchi<sup>3</sup>, Kenichi Sasaki<sup>2</sup>, Taihei Itoh<sup>2</sup>, Ken Okumura<sup>2</sup>

*<sup>1</sup>Department of Internal Medicine, Chikamori Hospital, Kochi, Japan, <sup>2</sup>Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan, <sup>3</sup>Department of Advance Management of Cardiac Arrhythmia, Hirosaki University, Aomori, Japan*

### O38-2 How Strongly Dose We Get the Catheter Contact with Agilis Steerable Sheath?

Taku Asano, Kou Ogawa, Yuya Nakamura, Akinori Ochi, Koichiro Inokuchi, Yuta Chiba, Shiro Kawasaki, Yoshimi Onishi, Yoshimasa Onuma, Yumi Munetsugu, Miwa Kikuchi, Hiroyuki Ito, Tatsuya Onuki, Fumito Miyoshi, Yoshino Minoura, Norikazu Watanabe, Taro Adachi, Mitsuharu Kawamura, Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### O38-3 Influence of Pulmonary Vein Locations on the Catheter Stability Assessed by VISITAG™ Module of CARTO 3 System

Rikitake Kogawa<sup>1</sup>, Yasuo Okumura<sup>1</sup>, Ichiro Watanabe<sup>1</sup>, Koichi Nagashima<sup>1</sup>, Kazumasa Sonoda<sup>1</sup>, Naoko Sasaki<sup>1</sup>, Kazuki Iso<sup>1</sup>, Keiko Takahashi<sup>1</sup>, Sayaka Kurokawa<sup>1</sup>, Shiro Nakahara<sup>2</sup>, Masatsugu Hori<sup>2</sup>, Kimie Ohkubo<sup>1</sup>, Toshiko Nakai<sup>1</sup>, Atsushi Hirayama<sup>1</sup>

*<sup>1</sup>Division of Cardiology, Department of Medicine, Nihon University School of Medicine, Tokyo, Japan, <sup>2</sup>Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan*

### O38-4 Immediate and long-term outcomes of contact force guided catheter ablation for atrial fibrillation

Hiroshi Tasaka, Satoki Fujii, Masatomo Ozaki, Mitsuru Yoshino, Noriyuki Ohashi, Yoji Okamoto, Kazushige Kadota, Kazuaki Mitsudo

*Department of Cardiology, Kurashiki Central Hospital, Okayama, Japan*

# Thursday, 30 July

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**O38-5** **Impact of catheter ablation with contact force sensing and automated lesion tagging on pulmonary vein isolation**

**Masahiro Yoshida**, Hisashi Murakami, Tomoyuki Shibata, Naoki Tsurumi, Shuro Riku, Hiroki Kojima, Takuya Okada, Kenji Kada, Naoya Tsuboi

*Department of Cardiology, JCHO Chukyo Hospital, Aichi, Japan*

**Room 8** 16:10-17:10 Debate7 [D7]

## Is a HUT necessary for the prediction of sudden cardiac death?

**Chair** Yuji Murakawa

*Department of Internal Medicine, Teikyo University Mizonouchi Hospital, Kanagawa, Japan*

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**D7-1** **Pro**

**Haruhiko Abe**

*Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan*

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**D7-2** **Con**

**Mitsuhiro Nishizaki**

*Department of Cardiology, Yokohama Minami Kyosai Hospital, Kanagawa, Japan*



# Thursday, 30 July

Room 9 8:30-10:00 Symposium9 [SP9]

## Risk Stratification of Early Repolarization Syndrome ★

**Chairs** Yoshifusa Aizawa

*Research and Development Tachikawa Medical Center, Niigata, Japan*

**Shiro Kamakura**

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

### SP9-1 The prognostic value of early repolarization (ER) and ST-segment morphology following the ER in Brugada syndrome: Multicenter study in Japan

**Masahiko Takagi**, Yukio Sekiguchi, Yasuhiro Yokoyama, Naohiko Aihara, Masayasu Hiraoka, Kazutaka Aonuma, The Japan Idiopathic Ventricular Fibrillation Study (J-IVFS) Investigators

*The Department of Cardiovascular Medicine, Osaka City University Graduate School of Medicine, Osaka, Japan*

### SP9-2 Syncope in patients with J wave

**Yoshino Minoura**, Yuta Chiba, Yuya Nakamura, Kou Ogawa, Akinori Ochi, Koichirou Inokuchi, Yoshimi Onishi, Shiro Kawasaki, Yumi Munetsugu, Miwa Kikuchi, Tatsuya Onuki, Norikazu Watanabe, Taro Adachi, Mitsuharu Kawamura, Taku Asano, Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### SP9-3 The impact of characteristics ECG morphology on the occurrence of ventricular fibrillation in hypothermic patients with Osborn wave

**Hiroki Sugiyama**<sup>1</sup>, Hiroshi Morita<sup>2</sup>, Motomi Tachibana<sup>1</sup>, Koji Nakagawa<sup>1</sup>, Nobuhiro Nishii<sup>2</sup>, Kazufumi Nakamura<sup>1</sup>, Satoshi Nagase<sup>1</sup>, Hiroshi Ito<sup>1</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan, <sup>2</sup>Department of Cardiovascular Therapeutics, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

### SP9-4 Importance of dynamic analysis of wide spectrum of repolarization indices in early repolarization syndrome

**Ahmed Talib**, Nobuyuki Sato, Eitaro Sugiyama, Naoko Kawabata, Naka Sakamoto, Yasuko Tanabe, Yuichiro Kawamura, Naoyuki Hasebe

*Asahikawa Medical University, First Department of Medicine, Hokkaido, Japan*

### SP9-5 Risk factors for the recurrence of ventricular fibrillation in patients with early repolarization syndrome

**Tsukasa Kamakura**, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takashi Noda, Takeshi Aiba, Shiro Kamakura, Kengo Kusano

*Division of Arrhythmia and Electrophysiology, Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

## Sleep Apnea Syndrome and Arrhythmias—Relations with the Autonomic Nervous System—★

**Chairs** Virend K. Somers  
*Mayo Clinic, USA*

**Eiichi Watanabe**  
*Department of Cardiology, Fujita Health University, Aichi, Japan*

### SP10-1 Key Note Lecture: Autonomic Mechanisms in Sleep Apnea—Implications for Arrhythmias and Sudden Death

Virend K. Somers  
*Mayo Clinic, USA*

### SP10-2 Nocturnal Variations in Atrial and Ventricular Electrophysiological Properties in Obstructive Sleep Apnea

Tetsuo Sasano<sup>1</sup>, Yuri Ishihara<sup>1</sup>, Mamiko Oya<sup>1</sup>, Toshihide Fujie<sup>2</sup>, Meiyo Tamaoka<sup>2</sup>, Yuki Sumi<sup>1</sup>, Masato Matsuura<sup>1</sup>, Yasunari Miyazaki<sup>2</sup>, Kenzo Hirao<sup>3</sup>

<sup>1</sup>Department of Biofunctional Informatics, Tokyo Medical and Dental University, Tokyo, Japan, <sup>2</sup>Department of Respiratory Medicine, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

### SP10-3 The Impact of Sleep Apnea on Early and Late Recurrence of Atrial Fibrillation Following Catheter Ablation

Shin-ichi Tanigawa, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryohsuke Narui, Mika Hioki, Michifumi Tokuda, Seigo Yamashita, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Teiichi Yamane

*The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*

### SP10-4 A severity of sleep-disordered breathing with atrial fibrillation ablation candidates is associated with the long-term outcome after pulmonary vein antrum isolation

Kazuaki Kaitani, Naoaki Onishi, Yukiko Hayama, Hirokazu Kondo, Yoshihisa Nakagawa  
*Department of Cardiology, Tenri Hospital, Nara, Japan*

### SP10-5 Impact of Obstructive Sleep Apnea on Cardiac Sympathetic Drive in Patients with Congestive Heart Failure

Taro Adachi, Shinji Koba, Ko Ogawa, Yuya Nakamura, Akinori Ochi, Koichiro Inokuchi, Yuta Chiba, Yumi Munetsugu, Yoshimasa Onuma, Shiro Kawasaki, Yoshimi Onishi, Tatsuya Onuki, Norikazu Watanabe, Yoshino Minoura, Mitsuharu Kawamura, Taku Asano, Youichi Kobayashi

*Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan*

# Thursday, 30 July

**Room 9** 11:50-12:50 Luncheon Seminar21 [LS21]

## **T2DM treatments for the prevention of CVD**

**Chair** **Shiro Iwanaga**

*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

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**LS21-1** **T2DM treatments for the prevention of CVD**

**Kouichi Inukai**

*Director of Diabetic Center, Division of Diabetes and Endocrinology, Higashiyamato Hospital, Tokyo, Japan*

*(MSD K.K.)*

## ICD患者のサポート

座長 樗木晶子

九州大学医学部保健学科

梅津 努

筑波大学附属病院看護部CDRチーム

### MPS3-1 植込み型除細動器 (ICD) 患者の健康関連QOLと心理的問題に関する研究

宮園真美<sup>1</sup>, 澤渡浩之<sup>2</sup>, 橋口暢子<sup>3</sup>, ラハマワティアニタ<sup>3</sup>, 石川勝彦<sup>4</sup>, 竹本真生<sup>3</sup>, 向井 靖<sup>3</sup>, 井上修二郎<sup>3</sup>, 眞茅みゆき<sup>5</sup>, 大塚祐子<sup>6</sup>, 櫻田春水<sup>7</sup>, 仲井 盛<sup>7</sup>, 樗木浩朗<sup>8</sup>, 樗木晶子<sup>3</sup>

<sup>1</sup>福岡県立大学看護学部, <sup>2</sup>済生会二日市病院, <sup>3</sup>九州大学, <sup>4</sup>熊本大学, <sup>5</sup>北里大学, <sup>6</sup>東京都立広尾病院, <sup>7</sup>東京都保健医療公社大久保病院, <sup>8</sup>保健医療経営大学

### MPS3-2 ICD患者を支えるための社会的サポート

安島良輝子<sup>1</sup>, 梅津 努<sup>1</sup>, 助川みよこ<sup>1</sup>, 小川孝二郎<sup>2</sup>, 関口幸夫<sup>2</sup>, 野上昭彦<sup>2</sup>, 青沼和隆<sup>2</sup>

<sup>1</sup>筑波大学附属病院看護部, <sup>2</sup>筑波大学附属病院循環器内科

### MPS3-3 ICD患者の社会復帰阻害因子の検討と多職種での取り組み

大野真紀

亀田総合病院循環器内科

### MPS3-4 当院のICD患者管理について

笹岡俊介<sup>1</sup>, 川崎 誠<sup>1</sup>, 島田一生<sup>1</sup>, 政木拓也<sup>1</sup>, 山田裕紀<sup>1</sup>, 宮本泰介<sup>1</sup>, 佐藤友理<sup>1</sup>, 酒井 毅<sup>2</sup>, 村松俊哉<sup>3</sup>, 塚原玲子<sup>3</sup>, 伊藤良明<sup>3</sup>, 石盛 博<sup>3</sup>, 平野敬典<sup>3</sup>, 中野雅嗣<sup>3</sup>, 山脇理弘<sup>3</sup>, 荒木基晴<sup>3</sup>, 小林範弘<sup>3</sup>, 滝村英幸<sup>3</sup>, 阪本泰成<sup>3</sup>

<sup>1</sup>恩賜財団済生会横浜市東部病院臨床工学部, <sup>2</sup>恩賜財団済生会横浜市東部病院不整脈科, <sup>3</sup>恩賜財団済生会横浜市東部病院循環器内科

# Thursday, 30 July

Room 9 15:40-17:10 Medical Professional Session4 [MPS4]

## MRI対応デバイスの撮像における実態と問題点

座長 中島 博

日本デバイス治療研究所

土橋俊男

日本医科大学付属病院放射線科

### MPS4-1 条件付きMRI対応デバイスにおけるMRI検査の安全性・モード設定に関する検討

杉山千紘<sup>1</sup>, 中井俊子<sup>2</sup>, 西尾佳恵<sup>1</sup>, 松井孝拓<sup>1</sup>, 池谷之利<sup>2</sup>, 永島正明<sup>3</sup>, 永嶋孝一<sup>2</sup>, 古川力丈<sup>2</sup>, 佐々木直子<sup>2</sup>, 磯 一貴<sup>2</sup>, 高橋啓子<sup>2</sup>, 園田和正<sup>2</sup>, 黒川早矢香<sup>2</sup>, 大久保公恵<sup>2</sup>, 奥村恭男<sup>2</sup>, 國本 聡<sup>2</sup>, 渡辺一郎<sup>2</sup>, 平山篤志<sup>2</sup>

<sup>1</sup>日本大学医学部附属板橋病院臨床工学技士室, <sup>2</sup>日本大学医学部内科学系循環器内科学分野, <sup>3</sup>日本大学医学部病態病理学系臨床検査医学分野

### MPS4-2 当院におけるMRI対応デバイス撮影の現状

磯村健二<sup>1</sup>, 吉田 靖<sup>1</sup>, 楠本繁崇<sup>1</sup>, 加藤貴充<sup>1</sup>, 近藤智勇<sup>1</sup>, 村辻雄大<sup>1</sup>, 高階雅紀<sup>1</sup>, 南口 仁<sup>2</sup>, 水野裕八<sup>2</sup>, 小西正三<sup>2</sup>, 小津賢太郎<sup>2</sup>, 中野智彰<sup>2</sup>, 山口 修<sup>2</sup>, 奥山裕司<sup>2</sup>, 坂田泰史<sup>2</sup>

<sup>1</sup>大阪大学医学部附属病院MEサービス部, <sup>2</sup>大阪大学大学院医学系研究科循環器内科学

### MPS4-3 当院における条件付きMRI対応ペースメーカー患者の撮影経験と課題

境田知子<sup>1</sup>, 五関善成<sup>2</sup>, 寶田 顕<sup>2</sup>, 齋藤由佳<sup>1</sup>, 矢崎義直<sup>2</sup>, 尾形申弐<sup>1</sup>, 山科 章<sup>2</sup>

<sup>1</sup>東京医科大学病院中央検査部生理機能検査室, <sup>2</sup>東京医科大学病院循環器内科

### MPS4-4 条件付きMRI対応デバイスの心臓MRIに対するアーチファクトの影響と撮像法の工夫

水野直和<sup>1</sup>, 井上完起<sup>2</sup>, 友池仁暢<sup>2</sup>, 矢川真弓子<sup>2</sup>, 歌野原祐子<sup>2</sup>, 高田香織<sup>1</sup>, 井口信雄<sup>2</sup>, 梅村 純<sup>2</sup>, 杉岡 翔<sup>1</sup>, 松田 純<sup>1</sup>

<sup>1</sup>公益財団法人日本心臓血圧研究振興会榊原記念病院放射線科, <sup>2</sup>公益財団法人日本心臓血圧研究振興会榊原記念病院循環器内科

## Imaging 2

**Chairs Junichi Nitta**

*Department of Cardiovascular Medicine, Saitama Red Cross Hospital, Saitama, Japan*

**Yusuke Kodama**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### **O39-1 A single center study for evaluating anatomical variations of sinoatrial nodal artery using 320-slice CT**

**Yasunori Hiranuma<sup>1</sup>, Takayasu Ishikawa<sup>1</sup>, Yukiko Toyoda<sup>1</sup>, Marehiko Ueda<sup>2</sup>, Akira Miyazaki<sup>1</sup>**

*<sup>1</sup>Department of Cardiology, Chiba Cerebral and Cardiovascular Center, Chiba, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Chiba University Graduate School of Medicine, Chiba, Japan*

### **O39-2 Novel echocardiographic parameter for optimal heart rate control in patients with atrial fibrillation**

**Kentaro Nakamura<sup>1</sup>, Keiko Yamashita<sup>1</sup>, Chikashi Nago<sup>1</sup>, Tomoyuki Kawashima<sup>1</sup>, Naoto Miyagi<sup>1</sup>, Hiroki Uehara<sup>1</sup>, Masanori Shimajiri<sup>1</sup>, Tatsuya Kuniyoshi<sup>1</sup>, Mitsuaki Takami<sup>2</sup>**

*<sup>1</sup>The Department of Cardiology, Urasoe General Hospital, Okinawa, Japan, <sup>2</sup>The Department of Internal Medicine, Owaki Hospital, Tokyo, Japan*

### **O39-3 Comparison of radiation dose of catheter ablation for atrial fibrillation using three-dimensional computed tomography or using three-dimensional rotational angiography**

**Satoshi Fujita, Eitaro Fujii, Yoshihiko Kagawa, Masaaki Ito**

*Department of Cardiology and Nephrology, Mie University Graduate School of Medicine, Mie, Japan*

### **O39-4 Safety advantage of preprocedural thrombus evaluation of the left atrial appendages by using intracardiac echocardiography in patients undergoing catheter ablation for persistent atrial fibrillation**

**Yukinori Ikegami, Kojiro Tanimoto, Kohei Inagawa, Kotaro Miura, Tadashi Fukuda, Memori Fukuda, Wataru Yamada, Jun Fuse, Munehisa Sakamoto, Yukihiko Momiyama**

*Department of Cardiology, National Hospital Organization Tokyo Medical Center, Tokyo, Japan*

### **O39-5 Cardiac imaging for the management of arrhythmia**

**Yasushi Akutsu<sup>1</sup>, Youichi Kobayashi<sup>2</sup>**

*<sup>1</sup>Department of Internal Medicine (Cardiology), Clinical Research Center for Clinical Pharmacology & Therapeutics, Showa University Karasuyama Hospital, Tokyo, Japan, <sup>2</sup>Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

## AF Ablation Complication 3★

**Chairs** Takashi Komatsu

*Division of Cardiology, Department of Internal Medicine, Iwate Medical University, Iwate, Japan*

Shiro Narahara

*Department of Cardiology, Dokkyo University Koshigaya Hospital, Saitama, Japan*

### O40-1 Pulmonary Vein Isolation Using Cryoablation Causes Pulmonary Vein Stenosis?

**Ryo Watanabe**, Yukihiro Yoshida, Masayuki Nakamura, Ayumi Ito, Yu Mori, Yu Yoshiki, Natsu Sekioka, Shunsuke Eguchi, Monami Ando, Mayuho Maeda, Yutaka Aoyama, Yasuhiro Ogura, Hirohiko Suzuki, Hiroki Kamiya, Mamoru Nanasato, Haruo Hirayama  
*Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan*

### O40-2 Comparison of Myocardial Injury Induced by Cryoballoon Ablation and Radiofrequency Contact Force-guided Ablation in Patients Undergoing Circumferential Pulmonary Vein Isolation

**Daisuke Horiuchi**<sup>1</sup>, Takahiko Kinjo<sup>2</sup>, Yuji Ishida<sup>2</sup>, Taihei Itoh<sup>2</sup>, Kenichi Sasaki<sup>2</sup>, Masaomi Kimura<sup>2</sup>, Shingo Sasaki<sup>1</sup>, Ken Okumura<sup>2</sup>

<sup>1</sup>*Department of Advance Management of Cardiac Arrhythmias, Hirosaki University Graduate School of Medicine, Aomori, Japan*, <sup>2</sup>*Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan*

### O40-3 Pre-assessment of the left atrial and pulmonary venous wall thickness for a prediction of pulmonary vein isolation with cryoballoon ablation

**Akira Ueno**<sup>1</sup>, Norishige Morita<sup>1</sup>, Takayuki Iida<sup>1</sup>, Masashi Hashida<sup>2</sup>, Akiko Ushijima<sup>1</sup>, Yoshinori Kobayashi<sup>1</sup>

<sup>1</sup>*Division of Cardiology, Department of Medicine, Tokai University Hachioji Hospital, Tokyo, Japan*, <sup>2</sup>*Tokai University Tokyo Hospital, Tokyo, Japan*

### O40-4 The risk factor of the phrenic nerve palsy with second-generation cryoballoons

**Masahito Suzuki**<sup>1</sup>, Junichi Nitta<sup>1</sup>, Yosuke Hayashi<sup>1</sup>, Yoshikazu Sato<sup>1</sup>, Keita Watanabe<sup>1</sup>, Yukihiro Inamura<sup>1</sup>, Ken Negi<sup>1</sup>, Tatsuya Hayashi<sup>1</sup>, Akira Sato<sup>1</sup>, Tsunehiro Yamato<sup>1</sup>, Yutaka Matsumura<sup>1</sup>, Kihiro Asakawa<sup>1</sup>, Masahiko Goya<sup>2</sup>, Kenzo Hirao<sup>2</sup>

<sup>1</sup>*The Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan*, <sup>2</sup>*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

### O40-5 Detection of phrenic nerve palsy following pulmonary vein isolation with cryoballoon

**Yusuke Kondo**<sup>1</sup>, Takashi Kurita<sup>2</sup>, Marehiko Ueda<sup>3</sup>, Yoshio Kobayashi<sup>3</sup>, Joerg O. Schwab<sup>1</sup>

<sup>1</sup>*Department of Medicine-Cardiology, University of Bonn, Bonn, Germany*, <sup>2</sup>*Division of Cardiovascular Center, Department of Medicine, Kinki University, Osaka, Japan*, <sup>3</sup>*Department of Cardiology, Chiba University Graduate School of Medicine, Chiba, Japan*

## Anticoagulant 3

**Chairs** Takeshi Tobiume

*Department of Cardiology, Tokushima University Hospital, Tokushima, Japan*

**Kojiro Tanimoto**

*Department of Cardiology, NHO Tokyo Medical Center, Tokyo, Japan*

### O41-1 Antiplatelet drugs accelerate fibrinolytic system and coagulating system

**Koichiro Inokuchi**, Norikazu Watanabe, Mitsuharu Kawamura, Yuya Nakamura, Akinori Ochi, Yuta Chiba, Yoshimi Onishi, Yumi Munetsugu, Tatsuya Onuki, Yoshino Minoura, Taro Adachi, Taku Asano, Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### O41-2 Evaluation of Anti-Coagulability between Non-vitamin K Antagonist Oral Anticoagulants from the Standpoint of the Number of Oral Administration. Once or Twice a day?

**Shigetaka Kanda**<sup>1</sup>, Koichiro Yoshioka<sup>1</sup>, Daisuke Fujibayashi<sup>1</sup>, Tadashi Hashida<sup>2</sup>, Mari Amino<sup>1</sup>, Yuji Ikari<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Internal Medicine, Tokai University, Kanagawa, Japan, <sup>2</sup>Tokyo Hospital, Tokai University, Tokyo, Japan*

### O41-3 A novel evaluation system for efficacy of warfarin and NOAC with Dielectric blood coagulometry

**Yusuke Ebana**<sup>1</sup>, Mitsuaki Isobe<sup>2</sup>

*<sup>1</sup>Department of Bioinformational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan*

### O41-4 Left atrial appendage thrombus formation in patients with nonvalvular atrial fibrillation on anticoagulation therapy

**Mihoko Kawabata**, Masahiko Goya, Takeshi Sasaki, Susumu Tao, Yasuhiro Shirai, Takuro Nishimura, Kenzo Hirao

*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

### O41-5 Questionnaire Survey on the Actual Conditions of Antithrombotic Medications in a Cardiology Outpatient Clinic of a Medical Center

**Tadashi Fujino**, Kenzaburo Kobayashi, Hitomi Yuzawa, Hideki Koike, Toshiki Asada, Ken Kitahara, Toshio Kinoshita, Takeya Suzuki, Atsuko Abe, Hideyuki Sato, Shunji Fukunaga, Takanori Ikeda

*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*



*Thursday, 30 July*

**Room 10** 11:50-12:50 Luncheon Seminar22 [LS22]

## **Amiodarone: Young Doctor's Guide for Use and Monitoring**

**Chair** Kazutaka Aonuma

*Cardiovascular Division, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan*

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**LS22-1** **Amiodarone: Young Doctor's Guide for Use and Monitoring**

**Tsuyoshi Shiga**

*Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

*(Sanofi K.K.)*

## Ablation Respiratory Care

**Chairs** Mahito Noro

*Department of Cardiology, Toho University Ohashi Hospital, Tokyo, Japan*

**Tatsuya Onuki**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### **O42-1 Respiratory care by Jaw elevation device combined with adaptive servo-ventilation can put the patient under deep sedation with stable respiration during atrial fibrillation ablation**

**Kazuya Mizukami, Hisashi Yokoshiki, Hirofumi Mitsuyama, Taro Tenma, Hiroyuki Tsutsui**

*Department of Cardiovascular Medicine, Hokkaido University Graduate School of Medicine, Hokkaido, Japan*

### **O42-2 Impact of Deep Sedations during Catheter Ablation on the Electrophysiological Behavior of PV and Non-PV Firing in Atrial Fibrillation Patients**

**Ryohsuke Narui, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane**

*Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan*

### **O42-3 Combination of Bilevel Positive Airway Pressure and Oral Airway Insertion Is an Effective Strategy during Atrial Fibrillation Ablation**

**Yoshiaki Yamaguchi, Koji Kumagai, Masahiro Nakano, Daisuke Kutsuzawa, Eri Goto, Kentaro Minami, Satoru Shimizu, Toshiaki Yano, Takehito Sasaki, Kohki Nakamura, Shigeto Naito, Shigeru Oshima**

*Gunma Cardiovascular Center, Gunma, Japan*

### **O42-4 Usage experience of l-gel for respiratory management with deep sedation during atrial fibrillation ablation**

**Masahiro Maruyama, Koji Miyamoto, Tsuyoshi Mishima, Yoshitaka Kimura, Junji Kaneyama, Ayako Kamijima, Saeko Hirose, Tsukasa Kamakura, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Hideo Okamura, Takashi Noda, Takeshi Aiba, Shiro Kamakura, Kengo Kusano**

*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*

**O42-5**

## **Continuous positive airway pressure therapy for sleep disordered breathing reduces the recurrence of atrial fibrillation after initial pulmonary vein isolation**

**Hiroshi Kawakami**<sup>1</sup>, Takayuki Nagai<sup>1</sup>, Akira Fujii<sup>1</sup>, Chiharuko Iio<sup>1</sup>, Kaori Fujimoto<sup>1</sup>, Tamami Kono<sup>1</sup>, Teruyoshi Uetani<sup>1</sup>, Kazuhisa Nishimura<sup>1</sup>, Katsuji Inoue<sup>1</sup>, Jun Suzuki<sup>1</sup>, Yasunori Oka<sup>2</sup>, Akiyoshi Ogimoto<sup>1</sup>, Takafumi Okura<sup>1</sup>, Jitsuo Higaki<sup>1</sup>

<sup>1</sup>*Department of Cardiology, Pulmonology, Hypertension and Nephrology, Ehime University Graduate School of Medicine, Ehime, Japan,* <sup>2</sup>*Ehime University Center for Sleep Medicine, Ehime, Japan*

## AF Ablation 8

**Chairs Satoshi Higa**

*Cardiac Electrophysiology and Pacing Laboratory, Division of Cardiovascular Medicine, Makiminato Central Hospital, Okinawa, Japan*

**Kazuhiko Tanaka**

*Heart Center, Arrhythmia Unit, Kasukabe Chuo General Hospital, Saitama, Japan*

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**O43-1 Catheter ablation of non-pulmonary vein firing originating from interatrial septum causing repetitive recurrence of paroxysmal atrial fibrillation after pulmonary vein isolation**

**Hitoshi Mori<sup>1</sup>, Akira Hamabe<sup>1</sup>, Junko Arakawa<sup>1</sup>, Mai Otsuka<sup>1</sup>, Yoshinori Takase<sup>1</sup>, Youdou Gatate<sup>1</sup>, Shunichi Takiguchi<sup>1</sup>, Kazuhiro Nakaya<sup>1</sup>, Norio Ishigami<sup>1</sup>, Hirotsugu Tabata<sup>1</sup>, Shuichi Katushika<sup>1</sup>, Bonpei Takase<sup>2</sup>**

*<sup>1</sup>Department of Cardiovascular Medicine, Self Defense Forces Central Hospital, Tokyo, Japan, <sup>2</sup>Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan*

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**O43-2 Impact of Empiric Isolation of the Superior Vena Cava in Addition to Circumferential Pulmonary Vein Isolation on the Outcome of Paroxysmal Atrial Fibrillation Ablation**

**Koichiro Ejima, Ken Kato, Ryuta Henmi, Daigo Yagishita, Tetsuyuki Manaka, Michiko Imai, Kuniaki Suwa, Takashi Mizuki, Morio Shoda, Nobuhisa Hagiwara**

*Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

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**O43-3 Withdrawn**

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**O43-4 Withdrawn**

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**O43-5 Cather Ablation of Non-Pulmonary Vein Foci Induced by High-Dose Isoproterenol and Rapid Atrial Pacing in Patients with Paroxysmal Atrial Fibrillation**

**Tatsuya Hayashi<sup>1</sup>, Junichi Nitta<sup>1</sup>, Akira Sato<sup>1</sup>, Yosuke Hayashi<sup>1</sup>, Yoshikazu Sato<sup>1</sup>, Keita Watanabe<sup>1</sup>, Yukihiro Inamura<sup>1</sup>, Masahito Suzuki<sup>1</sup>, Ken Negi<sup>1</sup>, Tsunehiro Yamato<sup>1</sup>, Yutaka Matsumura<sup>1</sup>, Kihiro Asakawa<sup>1</sup>, Masahiko Goya<sup>2</sup>, Kenzo Hirao<sup>2</sup>**

*<sup>1</sup>Saitama Red Cross Hospital, Saitama, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

## Anticoagulant 4

**Chairs** Tetsuya Asakawa

*Department of Cardiology, Yamanashi Kosei Hospital, Yamanashi, Japan*

Eitaro Kodani

*Department of Internal Medicine and Cardiology, Nippon Medical School Tama-Nagayama Hospital, Tokyo, Japan*

### O44-1 Stroke prevention and bleeding complications among warfarin, dabigatran, rivaroxaban and apixaban in patients undergoing atrial fibrillation ablation

Kiyohiro Hyogo, Koji Fukuzawa, Akihiro Yoshida, Tomoyuki Nakanishi, Soichiro Yamashita, Akinori Matsumoto, Hiroki Konishi, Hirotochi Ichibori, Hiroshi Imada, Ken-ichi Hirata

*Kobe University School of Medicine, Hyogo, Japan*

### O44-2 Different Characteristics of Non-Vitamin K Antagonist Oral Anticoagulants As Perioperative Therapy During Atrial Fibrillation Ablation

Hirosuke Yamaji<sup>1</sup>, Shunichi Higashiya<sup>1</sup>, Hiroshi Kawamura<sup>2</sup>, Takashi Murakami<sup>2</sup>, Kazuyoshi Hina<sup>2</sup>

*<sup>1</sup>Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan, <sup>2</sup>Cardiovascular Medicine, Okayama Heart Clinic, Okayama, Japan*

### O44-3 Comparisons of the effect of anticoagulation therapies on the coagulation system including the tissue factor pathway between vitamin K antagonist and the factor Xa inhibitors

Sou Otsuki<sup>1</sup>, Daisuke Izumi<sup>1</sup>, Akinori Sato<sup>1</sup>, Toshiki Takano<sup>1</sup>, Yuki Hasegawa<sup>1</sup>, Nobue Yagihara<sup>1</sup>, Hiroshi Watanabe<sup>1</sup>, Masaomi Chinushi<sup>2</sup>, Tohru Minamino<sup>1</sup>

*<sup>1</sup>Department of Cardiovascular Biology and Medicine, Niigata University School of Medical and Dental Sciences, Niigata, Japan, <sup>2</sup>School of Health Science, Faculty of Medicine, Niigata University, Niigata, Japan*

### O44-4 Predictors of silent cerebral emboli by magnetic resonance imaging after catheter ablation of atrial fibrillation among four oral anticoagulants

Kohki Nakamura, Shigeto Naito, Kentaro Minami, Takehito Sasaki, Eri Goto, Suguru Shimizu, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Masahiro Nakano, Toshiaki Yano, Koji Kumagai, Shigeru Oshima

*Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*

O44-5

## **Apixaban Does not Increase Re-bleeding on Puncture Site in High Risk Patients Undergoing Atrial Fibrillation Ablation**

**Keisuke Okawa**, Saori Tsukuda, Naoaki Matsuo, Tomoyuki Nishibe, Fumi Yokohama, Masahiro Sogo, Kazumasa Nosaka, Masahito Kajiya, Masayuki Doi, Keiichi Mashima, Kou Takeda

*Department of Cardiovascular Medicine, Kagawa Prefectural Central Hospital, Kagawa, Japan*

## AF Ablation 9★

**Chairs** Hisa Shimojima

*Division of Cardiology, Showa University Fujigaoka Hospital, Kanagawa, Japan*

**Yukoh Hirai**

*Department of Cardiology, Kure Kyosai Hospital, Hiroshima, Japan*

### O45-1 Short coupling interval ectopies may trigger atrial fibrillation

**Takashi Kanda, Masaharu Masuda, Akihiro Sunaga, Yasuhiro Matsuda, Masaaki Uematsu**

*Kansai Rosai Hospital, Cardiovascular Center, Hyogo, Japan*

### O45-2 Novel Diagnostic Approach to Identify Arrhythmogenic Pulmonary Vein during Catheter Ablation for Atrial Fibrillation

**Masahide Harada<sup>1</sup>, Kohei Sawasaki<sup>2</sup>, Masahiro Muto<sup>2</sup>, Masayuki Koshikawa<sup>1</sup>, Tomohide Ichikawa<sup>1</sup>, Mayumi Yamamoto<sup>1</sup>, Yoshihiro Sobue<sup>1</sup>, Kentarou Okuda<sup>1</sup>, Asami Fujiwara<sup>1</sup>, Eiichi Watanabe<sup>1</sup>, Yukio Ozaki<sup>1</sup>**

*<sup>1</sup>Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, <sup>2</sup>Department of Cardiology, Hamamatsu Medical Center, Shizuoka, Japan*

### O45-3 Paroxysmal Atrial Fibrillation Diagnosed by Medical Check-up (KEN-SHIN) Predicts Worse Outcome of Catheter Ablation

**Ryohsuke Narui, Michifumi Tokuda, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Keiichi Inada, Seiichiro Matsuo, Kenri Shibayama, Michifumi Yoshimura, Teiichi Yamane**

*Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan*

### O45-4 The time course of the change in P wave morphology in cases with new onset atrial fibrillation

**Tomoharu Yoshizawa<sup>1</sup>, Shinichi Niwano<sup>1</sup>, Hironori Nakamura<sup>1</sup>, Tazuru Igarashi<sup>1</sup>, Tamami Fujiishi<sup>1</sup>, Naruya Ishizue<sup>1</sup>, Jun Oikawa<sup>1</sup>, Jun Kishihara<sup>1</sup>, Akira Satoh<sup>1</sup>, Masami Murakami<sup>1</sup>, Hidehira Fukaya<sup>1</sup>, Hiroe Niwano<sup>2</sup>, Junya Ako<sup>1</sup>**

*<sup>1</sup>Department of Cardiovascular Medicine, Kitasato University School of Medicine, Kanagawa, Japan, <sup>2</sup>Department of Education, Tamagawa University, Collage of Education, Tokyo, Japan*

## AF Ablation Complication 4

**Chairs** Taketsugu Tsuchiya

*Division of Trans-catheter Cardiovascular Therapeutics, Kanazawa Medical University Hospital, Ishikawa, Japan*

Norikazu Watanabe

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### O46-1 Rethink the purpose and effectiveness of prophylactic proton pump inhibition after pulmonary vein isolation

Kojiro Ogawa<sup>1</sup>, Kenji Kuroki<sup>1</sup>, Yasutoshi Shinoda<sup>1</sup>, Eikou Sai<sup>1</sup>, Mitsuhiro Fukata<sup>1</sup>, Keita Masuda<sup>1</sup>, Yoshiaki Yui<sup>1</sup>, Takeshi Machino<sup>1</sup>, Miyako Igarashi<sup>1</sup>, Yukio Sekiguchi<sup>1</sup>, Akihiko Nogami<sup>1</sup>, Kazutaka Aonuma<sup>1</sup>, Yuji Mizokami<sup>2</sup>

<sup>1</sup>The Cardiovascular Division, University of Tsukuba, Ibaraki, Japan, <sup>2</sup>Department of Gastroenterology, University of Tsukuba, Ibaraki, Japan

### O46-2 Pseudo-aneurysm of the superficial external pudendal artery after pulmonary vein isolation

Tomoka Tabata, Hajime Saeki, Miwa Miyoshi, Miho Kuramoto, Shumpei Kosugi, Hiroyasu Inui, Takashi Mukai, Yusuke Kobayashi, Masami Nakagawa, Nobuyuki Ogasawara, Shinji Hasegawa

*JCHO Osaka Hospital, Osaka, Japan*

### O46-3 Incidence of pacemaker implantation after radiofrequency catheter ablation for paroxysmal atrial fibrillation with sick sinus syndrome

Tetsuma Kawaji, Satoshi Shizuta, Mitsuhiko Yahata, Kentaro Nakai, Hiroaki Sugiyama, Takeru Makiyama, Koh Ono, Takeshi Kimura

*Department of Cardiology, Kyoto University Graduate School of Medicine, Kyoto, Japan*

### O46-4 Complication of Atrial Fibrillation Ablation in Patients with Sleep Apnea Syndrome

Ryohsuke Narui, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane

*Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan*

### O46-5 Maintaining sinus rhythm by cardioversion with a low-dose bepridil before catheter ablation did not improve clinical outcome in patients with persistent atrial fibrillation

Tadashi Wada, Masato Murakami, Tomoyuki Tani, Hidetaka Suenaga, Sigeru Saito

*Department of Cardiovascular Therapeutics, Shonan Kamakura General Hospital, Kanagawa, Japan*



## Syncope

**Chairs** Mitsuhiro Nishizaki

*Department of Cardiology, Yokohama Minami Kyosai Hospital, Kanagawa, Japan*

Hitoshi Suzuki

*Department of Arrhythmia and Cardiac Pacing, Fukushima Medical University, Fukushima, Japan*

### O47-1 Difference in damage degree of vagal fibers between slow pathway ablation and pulmonary vein isolation at postoperative acute phase

Makoto Ono<sup>1</sup>, Yasuhiro Yoshiga<sup>1</sup>, Takeshi Ueyama<sup>1</sup>, Takayoshi Kato<sup>1</sup>, Tomoko Fumimoto<sup>1</sup>, Hirotomoto Ishiguchi<sup>1</sup>, Akihiko Shimizu<sup>2</sup>, Masafumi Yano<sup>1</sup>

*<sup>1</sup>Department of Medicine and Clinical Science, Division of Cardiology, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan, <sup>2</sup>Faculty of Health Science, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan*

### O47-2 Patients' Characteristics of Paroxysmal Supraventricular Tachycardia with Syncope

Takeshi Kodani<sup>1</sup>, Takanao Mine<sup>2</sup>, Kenki Ashida<sup>2</sup>, Hideyuki Kishima<sup>2</sup>, Tohru Masuyama<sup>2</sup>

*<sup>1</sup>Cardiovascular Division, Kobe Hospital of Japan Seafarers Relief Association, Hyogo, Japan, <sup>2</sup>Cardiovascular Division, Department of Internal Medicine, Hyogo College of Medicine, Hyogo, Japan*

### O47-3 A Case of Cardiac Asystole Triggered by Temporal Lobe Epilepsy with Amygdala Enlargement

Junko Arakawa<sup>1</sup>, Tomoo Nagai<sup>1</sup>, Hidenobu Sugano<sup>4</sup>, Akira Hamabe<sup>1</sup>, Mai Otsuka<sup>1</sup>, Yoshiyuki Takase<sup>2</sup>, Yodo Gatate<sup>2</sup>, Shunichi Takiguchi<sup>2</sup>, Kazuhiro Nakaya<sup>1</sup>, Norio Ishigami<sup>2</sup>, Koji Fukushima<sup>3</sup>, Hirotsugu Tabata<sup>2</sup>, Bonpei Takase<sup>5</sup>, Shuichi Katsushika<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Japan Self-Defense Forces Central Hospital, Tokyo, Japan, <sup>2</sup>Department of Cardiology, Mishuku Hospital, Tokyo, Japan, <sup>3</sup>Department of Neurology, Japan Self-Defense Forces Central Hospital, Tokyo, Japan, <sup>4</sup>Department of Neurosurgery, Juntendo University Hospital, Tokyo, Japan, <sup>5</sup>Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan*

### O47-4 Paroxysmal third-degree atrioventricular block of unknown etiology in a young patient

Hironori Sato<sup>1</sup>, Yuichi Ono<sup>1</sup>, Sawako Yada<sup>1</sup>, Taku Fukushima<sup>1</sup>, Yuki Osaka<sup>1</sup>, Kenji Koura<sup>1</sup>, Toru Miyazaki<sup>1</sup>, Tomoko Manno<sup>1</sup>, Ken Kurihara<sup>1</sup>, Shigeo Shimizu<sup>1</sup>, Kenichiro Otomo<sup>1</sup>, Kenzo Hirao<sup>2</sup>

*<sup>1</sup>Division of Cardiology, Ome Municipal General Hospital, Tokyo, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

O47-5

**Pilsicainide-enhanced J wave and ST segment elevation in inferior leads in a patient with variant forms of Brugada syndrome****Fuminori Odagiri<sup>1</sup>, Yuji Nakazato<sup>1</sup>, Hiroya Shimano<sup>2</sup>, Rie Takano<sup>2</sup>, Gaku Sekita<sup>3</sup>, Takashi Tokano<sup>1</sup>, Masataka Sumiyoshi<sup>4</sup>, Hiroyuki Daida<sup>3</sup>**

<sup>1</sup>Department of Cardiology, Juntendo University Urayasu Hospital, Chiba, Japan, <sup>2</sup>Department of Medical Engineering, Juntendo University Urayasu Hospital, Chiba, Japan, <sup>3</sup>Department of Cardiology, Juntendo University School of Medicine, Tokyo, Japan, <sup>4</sup>Department of Cardiology, Juntendo University Nerima Hospital, Tokyo, Japan

*Thursday, 30 July*

**Room 11** 11:50-12:50 Luncheon Seminar23 [LS23]

## **Heart Failure with Chronic Obstructive Pulmonary Disease: Diagnosis and Beta-blocker Therapy**

**Chair** Wataru Shimizu

*Department of Cardiovascular Medicine, Graduate School of Medicine, Nippon Medical School, Tokyo, Japan*

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**LS23-1** **Heart Failure with Chronic Obstructive Pulmonary Disease: Diagnosis and  
Beta-blocker Therapy**

**Naoki Sato**

*Cardiology and Intensive Care Unit, Nippon Medical School Musashi-Kosugi Hospital, Kanagawa, Japan*

*(Mitsubishi Tanabe Pharma Corporation)*

## AF Ablation 10

**Chairs** Hiroshi Sohara

*The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan*

**Ritsushi Kato**

*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

### O48-1 Location of the lesion created by cryoballoon technology; Evaluation of ablated area by NavX system

**Koichi Inoue**, Koji Tanaka, Yuko Toyoshima, Takafumi Oka, Nobuaki Tanaka, Yoshiyuki Orihara, Yasushi Koyama, Atsunori Okamura, Katsuomi Iwakura, Kenshi Fujii

*Sakurabashi Watanabe, Cardiovascular Center, Osaka, Japan*

### O48-2 Pulmonary Venography Score Is an Acute Success Predictor of Pulmonary Vein Isolation by Cryoballoon Ablation for Paroxysmal Atrial Fibrillation

**Yasuhiro Sasaki**, Atsushi Kobori, Yutaka Furukawa

*Department of Cardiology, Kobe City Medical Center General Hospital, Hyogo, Japan*

### O48-3 Long-term Outcome Following Bi-atrial Ablation by the Use of Radiofrequency Hot Balloon in Long-Standing Persistent Atrial Fibrillation

**Yoshio Yamaguchi**, Hiroshi Sohara, Yoshinori Nakamura, Minoru Ihara, Satoshi Higuchi, Sunao Mikura, Shutaro Satake

*The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan*

### O48-4 The ovality of PV ostia predicts acute success of pulmonary vein isolation using the cryoballoon ablation

**Satoru Shimizu**, Shigeto Naito, Kohki Nakamura, Eri Goto, Kentaro Minami, Daisuke Kutsuzawa, Masahiro Nakano, Takehito Sasaki, Yoshiaki Yamaguchi, Toshiaki Yano, Koji Kumagai, Shigeru Oshima

*Gunma Prefectural Cardiovascular Center, Gunma, Japan*

### O48-5 Feasibility and Efficacy of Cryoballoon Ablation in a Patient with Paroxysmal Atrial Fibrillation - Comparison with Radiofrequency Segmental Pulmonary Vein Antrum Isolation-

**Michifumi Tokuda**, Seiichiro Matsuo, Kenichi Tokutake, Kenichi Yokoyama, Mika Hioki, Ryohsuke Narui, Shin-ichi Tanigawa, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane

*Division of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*

## AF Ablation 11

**Chairs** Shigeto Naito

*Department of Cardiology, Gunma Cardiovascular Center, Gunma, Japan*

**Kazuhiro Satomi**

*Department of Cardiology, Tokyo Medical University Hachioji Medical Center, Tokyo, Japan*

### O49-1 Long-Term Result of Radiofrequency Hot Balloon Ablation in the Patients with Paroxysmal Atrial Fibrillation; Safety and Rhythm Outcome

**Yoshio Yamaguchi**, Hiroshi Sohara, Yoshinori Nakamura, Minoru Ihara, Satoshi Higuchi, Sunao Mikura, Shutaro Satake

*The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan*

### O49-2 Outcome of the Cryoballoon-based pulmonary vein isolation; Comparison between with and without non-pulmonary vein foci

**Yukihiro Inamura**<sup>1</sup>, Junichi Nitta<sup>1</sup>, Yosuke Hayashi<sup>1</sup>, Yoshikazu Sato<sup>1</sup>, Keita Watanabe<sup>1</sup>, Masahito Suzuki<sup>1</sup>, Ken Negi<sup>1</sup>, Tatsuya Hayashi<sup>1</sup>, Akira Sato<sup>1</sup>, Tsunehiro Yamato<sup>1</sup>, Yutaka Matsumura<sup>1</sup>, Kihiro Asakawa<sup>1</sup>, Masahiko Goya<sup>2</sup>, Kenzo Hirao<sup>2</sup>

*<sup>1</sup>Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

### O49-3 The Attempt to Achieve the Pulmonary Vein Carina Isolation Using Cryoballoon

**Monami Ando**<sup>1</sup>, Yukihiro Yoshida<sup>1</sup>, Akinori Sairaku<sup>2</sup>, Ryo Watanabe<sup>1</sup>, Mayuho Maeda<sup>1</sup>, Yasuhiro Ogura<sup>1</sup>, Hirohiko Suzuki<sup>1</sup>, Hiroki Kamiya<sup>1</sup>, Mamoru Nanasato<sup>1</sup>, Haruo Hirayama<sup>1</sup>

*<sup>1</sup>Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan, <sup>2</sup>Department of Cardiology, Hiroshima City Hospital, Hiroshima, Japan*

### O49-4 Acute phase efficacy and safety of cryoballoon ablation of paroxysmal atrial fibrillation in comparison with contact-force guided radiofrequency ablation

**Masaomi Kimura**<sup>1</sup>, Daisuke Horiuchi<sup>2</sup>, Kenichi Sasaki<sup>1</sup>, Taihei Itoh<sup>1</sup>, Noriyoshi Kaname<sup>3</sup>, Yuji Ishida<sup>3</sup>, Takahiko Kinjo<sup>1</sup>, Shingo Sasaki<sup>2</sup>, Ken Okumura<sup>1</sup>

*<sup>1</sup>Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan, <sup>2</sup>Department of Advance Management of Cardiac Arrhythmias, Hirosaki University Graduate School of Medicine, Aomori, Japan, <sup>3</sup>Department of Internal Medicine, Chikamori Hospital, Kochi, Japan*

### O49-5 Evaluation of Diaphragmatic Electromyograms in Radiofrequency Ablation of Atrial Fibrillation

**Noboru Ichihara**, Makoto Araki, Takamitsu Takagi, Jin Iwasawa, Akio Kuroi, Hiroaki Nakamura, Shinsuke Miyazaki, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka

*Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan*

## AF Ablation 12

**Chairs** Takeshi Tsuchiya

*EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan*

**Taku Asano**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### O50-1 Acute AF termination during ablation targeting for the repetitive periodical activation sequence (RePAs) using contact bipolar mapping

Yuichi Ono<sup>1</sup>, Kenichiro Otomo<sup>1</sup>, Yuki Osaka<sup>1</sup>, Hironori Sato<sup>1</sup>, Sawako Yada<sup>1</sup>, Taku Fukushima<sup>1</sup>, Kenji Koura<sup>1</sup>, Toru Miyazaki<sup>1</sup>, Tomoko Manno<sup>1</sup>, Ken Kurihara<sup>1</sup>, Shigeo Shimizu<sup>1</sup>, Kenzo Hirao<sup>2</sup>, Mitsuaki Isobe<sup>3</sup>

*<sup>1</sup>Department of Cardiology, Ome Municipal General Hospital, Tokyo, Japan, <sup>2</sup>Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan*

### O50-2 Possible Mechanisms of Effective Rotor Ablation for Chronic Atrial Fibrillation: A Simulation Study

Takashi Ashihara<sup>1</sup>, Ryo Haraguchi<sup>2</sup>, Shin Inada<sup>2</sup>, Kazuo Nakazawa<sup>2</sup>, Takeshi Tsuchiya<sup>3</sup>, Takanori Yamaguchi<sup>4</sup>, Akira Fukui<sup>3</sup>, Tomoya Ozawa<sup>1</sup>, Tetsuhisa Hattori<sup>1</sup>, Koichi Kato<sup>1</sup>, Minoru Horie<sup>1</sup>

*<sup>1</sup>Department of Cardiovascular Medicine, Shiga University of Medical Science, Shiga, Japan, <sup>2</sup>National Cerebral and Cardiovascular Center, Osaka, Japan, <sup>3</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>4</sup>Department of Cardiology and Clinical Examination, Oita University, Oita, Japan*

### O50-3 Newly Developed Near-Real-Time Phase Mapping System Called "ExTRa Mapping" Nicely Elucidates Rotors and It Was Preferentially Located at Fibrotic Tissue Border

Akira Fukui<sup>1</sup>, Takeshi Tsuchiya<sup>1</sup>, Takanori Yamaguchi<sup>2</sup>, Yasutsugu Nagamoto<sup>3</sup>, Shin Inada<sup>4</sup>, Kazuo Nakazawa<sup>4</sup>, Takashi Ashihara<sup>5</sup>

*<sup>1</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>2</sup>Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, <sup>3</sup>Division of Cardiology, Saga-Ken Medical Centre Koseikan, Saga, Japan, <sup>4</sup>National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, <sup>5</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan*

### O50-4 Nearly-missed Versus On-target Rotor Ablation of the Stretched-related Atrial Fibrillation in the Presence of Cholinergic Stimulation

Masatoshi Yamazaki<sup>1</sup>, Haruo Honjo<sup>1</sup>, Uma Avula<sup>2</sup>, Takashi Ogawa<sup>1</sup>, Kaichiro Kamiya<sup>1</sup>, Jerome Kalifa<sup>2</sup>

*<sup>1</sup>RIEM, Nagoya University, Aichi, Japan, <sup>2</sup>CAR, University of Michigan, Ann Arbor, MI, USA*

# Thursday, 30 July

**O50-5 Low Voltage Zone (LVZ) Is Closely Related to Repetitively Appearing Rotors: An Analysis with a Novel Phase Mapping System Called "ExTRa Mapping"**

**Akira Fukui<sup>1</sup>, Takeshi Tsuchiya<sup>1</sup>, Takanori Yamaguchi<sup>2</sup>, Yasutsugu Nagamoto<sup>3</sup>, Shin Inada<sup>4</sup>, Kazuo Nakazawa<sup>4</sup>, Takashi Ashihara<sup>5</sup>**

*<sup>1</sup>EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, <sup>2</sup>Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, <sup>3</sup>Division of Cardiology, Saga-Ken Medical Centre Koseikan, Saga, Japan, <sup>4</sup>National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, <sup>5</sup>Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan*

Event Hall 10:00-10:40 Educational Seminar2 [EDS2]

## 教育セミナー（心臓構造学レクチャー2）

EDS2 不整脈の理解に必要な心臓の解剖（2）：左心系の解剖

井川 修

日本医科大学多摩永山病院内科・循環器内科



# Thursday, 30 July

**Event Hall** 11:50-12:50 Luncheon Seminar24 [LS24]

## Cardiac Anatomy for Device Therapy

**Chair** Yuji Nakazato

*Department of Cardiology, Juntendo University Urayasu Hospital, Chiba, Japan*

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**LS24-1** Cardiac Anatomy for Device Therapy

**Osamu Igawa**

*Department of Internal Medicine and Cardiology, Nippon Medical School Tama Nagayama Hospital, Tokyo, Japan*

*(St. Jude Medical Japan Co., Ltd.)*

## AF 7

Chairs Yumie Matsui

*Department of Cardiology, Saiseikai Izuo Hospital, Osaka, Japan*

Kiyoshi Ohtomo

**P13-1 Is the incidence of iatrogenic atrial septal defects using radiofrequency transeptal needle higher than conventional transeptal needle?**

Shunichi Higashiya<sup>1</sup>, Hirosuke Yamaji<sup>1</sup>, Takashi Murakami<sup>2</sup>, Shigeshi Kamikawa<sup>2</sup>, Hiroshi Kawamura<sup>2</sup>, Masaaki Murakami<sup>2</sup>, Kazuyoshi Hina<sup>2</sup>

<sup>1</sup>Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan, <sup>2</sup>Department of Cardiology, Okayama Heart Clinic, Okayama, Japan

**P13-2 Efficacy and Safety of Minimal New Oral Anticoagulants Interruption Strategy in Patients Undergoing Atrial Fibrillation Ablation**

Minako Ohara, Kensuke Matsumoto, Yutaka Take, Kimikazu Banba, Yoshimasa Tsushima, Tohru Ohe

*The Sakakibara Heart Institute of Okayama, Okayama, Japan*

**P13-3 Comparison of the Procedure Time and Success Rate for the Different Rhythms during Catheter Ablation of Atrial Fibrillation**

Hitomi Yuzawa, Tadashi Fujino, Toshiki Asada, Hideki Koike, Masaya Shinohara, Ken Kitahara, Toshio Kinoshita, Takeya Suzuki, Atsuko Abe, Hideyuki Sato, Shunji Fukunaga, Kenzaburo Kobayashi, Takanori Ikeda

*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*

**P13-4 Safety of Non-Vitamin K Antagonist Oral Anticoagulants Versus Warfarin for Periprocedural Anticoagulation in Patients Undergoing Radiofrequency Ablation for Atrial Fibrillation**

Yasuaki Tanaka, Hideharu Okamatsu, Takuo Tsurugi, Junjiroh Koyama, Toshihiro Honda, Koichi Nakao

*Division of Cardiology, Saiseikai Kumamoto Hospital, Kumamoto, Japan*

**P13-5 Impact of Cryoballoon and Radiofrequency Energy on the Biomarker of Myocardial Injury after Ablation of Atrial Fibrillation**

Shin-ichi Tanigawa, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryohsuke Narui, Mika Hioki, Seigo Yamashita, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Teiichi Yamane

*The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*

## AF 8

**Chairs** Yoshihisa Enjoji

*Department of Cardiology, Tokyo Heart Center, Tokyo, Japan*

**Tatsuya Onuki**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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### **P14-1 Perimitral Atrial Flutter is Rare but Dominant Type of Atrial Tachyarrhythmia after Box Isolation for Atrial Fibrillation**

**Taku Nishida**, Akihiro Takitsume, Kenji Onoue, Satoshi Okayama, Yukiji Takeda, Makoto Watanabe, Hiroyuki Kawata, Rika Kawakami, Yoshihiko Saito

*The First Department of Internal Medicine, Nara Medical University, Nara, Japan*

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### **P14-2 Withdrawn**

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### **P14-3 Features of Inducible Tricuspid Isthmus Dependent Atrial Flutter and the Clinical Implications after Ablation in Patients with Atrial Fibrillation**

**Naoto Kino**, Toshiya Kurotobi, Takao Tsuchida, Masataka Yoshida, Yoshihisa Shimada

*Cardiovascular Division, Shiroyama Hospital, Osaka, Japan*

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### **P14-4 Catheter Ablation for Young Patients with Atrial Fibrillation**

**Hirohiko Suzuki**, Yukihiro Yoshida, Masayuki Nakamura, Ayumi Ito, Ryo Watanabe, Natsu Sekioka, Yu Mori, Yu Yoshiki, Shunsuke Eguchi, Monami Ando, Mayuho Maeda, Yutaka Aoyama, Yasuhiro Ogura, Hiroki Kamiya, Mamoru Nanasato, Haruo Hirayama

*Department of Cardiology, Nagoya Daini Red Cross Hospital, Aichi, Japan*

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### **P14-5 Weak contact is the cause of atrial fibrillation recurrence after pulmonary vein isolation**

**Ken Terata**<sup>1</sup>, Yoshihisa Abe<sup>1</sup>, Haruwo Tashiro<sup>1</sup>, Ken Kadowaki<sup>1</sup>, Takashi Koyama<sup>2</sup>, Hiroshi Ito<sup>2</sup>

<sup>1</sup>Department of Cardiology, Akita Medical Center, Akita, Japan, <sup>2</sup>Division of Cardiovascular Medicine and Respiratory Medicine, Akita University Graduate School of Medicine, Akita, Japan

## AF 9

**Chairs Akira Sato***Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan***Seiji Fukamizu***Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan***P15-1****Atrial Fibrillation Termination Site in the Left Atrium is Associated with Fibrillatory Cycle Length Gradient between the Left and Right Atrium****Mayumi Masumura<sup>1</sup>, Yoshihide Takahashi<sup>1</sup>, Shinsuke Iwai<sup>1</sup>, Naoyuki Miwa<sup>1</sup>, Yasuhiro Sato<sup>1</sup>, Kenzo Hirao<sup>2</sup>***<sup>1</sup>Department of Cardiology, National Disaster Medical Center, Tokyo, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan***P15-2****The difference of heart rate variability in cryoballoon ablation group compared with radiofrequency ablation group for atrial fibrillation****Akira Sato, Junichi Nitta, Yosuke Hayashi, Yoshikazu Sato, Keita Watanabe, Yukihiro Inamura, Masahito Suzuki, Ken Negi, Tatsuya Hayashi, Tsunehiro Yamato, Yutaka Matsumura, Kihiro Asakawa***Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan***P15-3****Signal-averaged P-wave Duration Measured by Signal-averaged Electrocardiogram Indicates Correlation with Left Atrium Low Voltage Areas****Daisuke Kutsuzawa, Koji Kumagai, Satoru Shimizu, Yoshiaki Yamaguchi, Toshiaki Yano, Masahiro Nakano, Kentaro Minami, Takehito Sasaki, Kohki Nakamura, Shigeto Naito, Shigeru Oshima***Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan***P15-4****Reduced residual conduction gaps and favorable outcome in contact force-guided circumferential pulmonary vein isolation****Taihei Itoh<sup>1</sup>, Shingo Sasaki<sup>2</sup>, Masaomi Kimura<sup>1</sup>, Daisuke Horiuchi<sup>2</sup>, Yuji Ishida<sup>1</sup>, Takahiko Kinjo<sup>1</sup>, Ken Okumura<sup>1</sup>***<sup>1</sup>The Department of Cardiovascular Medicine, University of Hirosaki Graduate School of Medicine, Aomori, Japan,**<sup>2</sup>The Department of Advanced Management of Cardiac Arrhythmias, University of Hirosaki Graduate School of Medicine, Aomori, Japan*

# Thursday, 30 July

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**P15-5**

## **Improvement of quality of life by pulmonary vein isolation in persistent atrial fibrillation patients**

**Masaru Kato**, Junichiro Miake, Kazuyoshi Ogura, Kazuhiko Iitsuka, Takehito Kondo, Kazuhiro Yamamoto

*Division of Cardiovascular Medicine, Department of Molecular Medicine and Therapeutics, Faculty of Medicine, Tottori University, Tottori, Japan*

**AF 10****Chairs Kazuhiko Tanaka***Heart Center Arrhythmia Unit, Kasukabe Chuo General Hospital, Saitama, Japan***Norishige Morita***Division of Cardiology, Department of Medicine, Tokai University Hachioji Hospital, Tokyo, Japan***P16-1****Lack of correlation between left atrial voltage on coronary sinus and ablation outcome in patients with persistent atrial fibrillation****Yoshimitsu Otsuka<sup>1</sup>, Koji Azegami<sup>1</sup>, Kazuya Murata<sup>1</sup>, Keita Handa<sup>1</sup>, Shingo Watanabe<sup>1</sup>, Tae Ishikawa<sup>1</sup>, Kaoru Sakurai<sup>1</sup>, Kaoru Okishige<sup>3</sup>, Kenzo Hirao<sup>2</sup>, Mitsuaki Isobe<sup>2</sup>***<sup>1</sup>Department of Cardiovascular Medicine, Shinyurigaoka General Hospital, Kanagawa, Japan, <sup>2</sup>Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan, <sup>3</sup>Heart Center, Yokohama City Bay Red Cross Hospital, Kanagawa, Japan***P16-2****Successful Cardioversion after Pulmonary Vein Isolation in Cardioversion-Tolerant Persistent and Paroxysmal Atrial Fibrillation****Hiroshi Shimizu, Yusuke Tamura***Cardiology, Saiseikai Niigata Second Hospital, Niigata, Japan***P16-3****A successful case of ablation of pulmonary vein tachycardia from the origin of right superior pulmonary vein after right pulmonary vein isolation****Hiroki Yorifuji, Yasayuki Egami, Nobuhiko Makino, Ryu Shutta, Masami Nishino***Osaka Rosai Hospital, Osaka, Japan***P16-4****Local Electrogram of Successful Ablation Site of Premature Ventricular Contraction with Endocardial Origin****Yosuke Nakatani<sup>1</sup>, Koichi Mizumaki<sup>1</sup>, Shigeto Naito<sup>2</sup>, Koji Kumagai<sup>2</sup>, Kohki Nakamura<sup>2</sup>, Kentaro Minami<sup>2</sup>, Shigeru Oshima<sup>2</sup>, Hiroshi Inoue<sup>1</sup>***<sup>1</sup>The Second Department of Internal Medicine, University of Toyama, Toyama, Japan, <sup>2</sup>Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan***P16-5****A case with arrhythmogenic potential for atrial fibrillation within the remnant of a pulmonary vein****Shigeki Hiramatsu, Katsumasa Sato, Yoshimasa Morimoto, Hiroki Yamane, Arata Hagikura, Yuetsu Kikuta, Masahito Taniguchi, Kenji Goto, Hideo Takebayashi, Seiichi Haruta***Fukuyama Cardiovascular Hospital, Hiroshima, Japan*

## AF 11

**Chairs** Takeshi Tsuchiya

*EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan*

**Taku Asano**

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

### **P17-1 The Safety and Efficacy of Superior Vena Cava Isolation by Use of Irrigated Ablation System with Electro-Anatomical Mapping for Paroxysmal Atrial Fibrillation**

**Kazuhiko Iitsuka**, Junichiro Miake, Kazuyoshi Ogura, Masaru Kato, Takehito Kondo, Kazuhiro Yamamoto

*Division of Cardiovascular Medicine, Department of Molecular Medicine and Therapeutics, Faculty of Medicine, Tottori University, Tottori, Japan*

### **P17-2 The ablation of ridge from the left atrial appendage in the extensive encircling pulmonary vein isolation facilitates mitral isthmus ablation**

**Masaya Fujita**, Shinji Kaneko, Shingo Narita, Tomoaki Haga, Daisuke Hayashi, Taiki Ohashi, Ryuji Kubota, Masanori Shinoda

*Toyota Kosei Hospital, Aichi, Japan*

### **P17-3 Acute result of cryoballoon ablation for persistent atrial fibrillation compared to for paroxysmal atrial fibrillation**

**Yasuhiro Ogura**, Yukihiko Yoshida, Hirohiko Suzuki, Monami Ando, Ryo Watanabe, Masayuki Nakamura, Ayumi Ito, Yu Yoshiki, Natsu Sekioka, Shunsuke Eguchi, Mayuho Maeda, Yutaka Aoyama, Hiroki Kamiya, Mamoru Nanasato, Haruo Hirayama

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### **P17-4 Evaluation of High Contact Force-based Radio Frequency Ablation in Patients with Persistent Atrial Fibrillation**

**Yu Nomura**, Chikara Oshiro

*Cardiology, Chubu Tokushukai Hospital, Okinawa, Japan*

### **P17-5 Sinus Rhythm Maintenance by Catheter Ablation Can Improve Cardiac Function in Patients with Persistent Atrial Fibrillation**

**Yoshiaki Inoue**, Kinya Shirota, Hiroshige Ishii, Fumiyo Tsunoda, Kiyotaka Yanagihara, Masayuki Hirai, Asao Mimura

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## Imaging

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Tetsuo Sasano

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**P18-1** Relationship between sympathetic nervous system innervation and tachyarrhythmia in patients with a history of paroxysmal palpitation

Yasushi Akutsu<sup>1</sup>, Taku Asano<sup>2</sup>, Youichi Kobayashi<sup>2</sup>

*<sup>1</sup>Department of Internal Medicine (Cardiology), Clinical Research Center for Clinical Pharmacology & Therapeutics, Showa University Karasuyama Hospital, Tokyo, Japan, <sup>2</sup>Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

**P18-2** Targeted Endomyocardial Biopsy Using Intracardiac Echocardiography and Electroanatomical Voltage Mapping in Cardiac Sarcoidosis Forming a Right Ventricular Tumor

Kazuhiro Kimura, Koji Yoshie, Wataru Shoin, Takahiro Takeuchi, Ayako Okada, Morio Shoda, Uichi Ikeda

*Department of Cardiovascular Medicine, Shinshu University School of Medicine, Nagano, Japan*

**P18-3** Delayed imaging of multidetector computed tomography may be adequate enough to detect intracardiac thrombi in atrial fibrillation ablation

Shinji Ishimaru<sup>1</sup>, Mariko Kawasaki<sup>1</sup>, Risa Kakinoki<sup>1</sup>, Masahiro Takahata<sup>1</sup>, Motohito Tadokoro<sup>1</sup>, Shunsuke Kitani<sup>1</sup>, Teppei Sugaya<sup>1</sup>, Tadashi Igarashi<sup>1</sup>, Hiroaki Okabayashi<sup>1</sup>, Jungo Furuya<sup>1</sup>, Yasumi Igarashi<sup>1</sup>, Keiichi Igarashi<sup>1</sup>, Masaki Tabata<sup>2</sup>

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**P18-4** Feasibility of Temporary Figure of Eight Subcutaneous Suture after Femoral Vein Puncture

Yae Matsuo<sup>1</sup>, Petr Neuzil<sup>2</sup>, Yoshiaki Kaneko<sup>1</sup>, Masahiko Kurabayashi<sup>1</sup>

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## Anticoagulant

**Chairs Toshikazu Funazaki**

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**Kenichiro Otomo**

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### **P19-1 Higher Amount of Heparin with Apixaban Compared to Warfarin and Other Non-VKA Oral Anticoagulants in the peri-Ablation for Atrial Fibrillation**

**Toshio Kinoshita**, Tadashi Fujino, Hideki Koike, Masaya Shinohara, Toshiki Asada, Ken Kitahara, Hitomi Yuzawa, Takeya Suzuki, Hideyuki Sato, Atsuko Abe, Shunji Fukunaga, Kenzaburo Kobayashi, Takanori Ikeda

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### **P19-2 Which Peptic Ulcer Agent Reduces Gastrointestinal Adverse-effects Caused by Dabigatran?**

**Satoshi Tokimasa**<sup>1</sup>, Yoshiyuki Hama<sup>2</sup>, Yuji Matsudo<sup>2</sup>, Yoshihide Fujimoto<sup>2</sup>, Toshiharu Himi<sup>2</sup>, Yuuki Fujiwara<sup>3</sup>, Juntarou Deyama<sup>3</sup>, Ken Umetani<sup>3</sup>, Yoshio Kobayashi<sup>1</sup>

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### **P19-3 Prescription Trending, Safety, and Efficacy of New Oral Anticoagulants (NOACs) in a Single Facility**

**Yoshinari Goseki**, Yoshinao Yazaki, Ken Takarada, Akira Yamashina

*Department of Cardiology, Tokyo Medical University, Tokyo, Japan*

### **P19-4 The effect of the cessation of NOACs periablation on anticoagulation during AF ablation**

**Takatoshi Shigeta**<sup>1</sup>, Hiroyuki Okada<sup>1</sup>, Masahiro Hada<sup>1</sup>, Masao Yamaguchi<sup>1</sup>, Tatsuya Fujinami<sup>1</sup>, Go Ishimaru<sup>1</sup>, Hiroshi Inagaki<sup>1</sup>, Nobuo Toshida<sup>1</sup>, Toshihiko Takamoto<sup>1</sup>, Kenzo Hirao<sup>2</sup>

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### **P19-5 How do we choose one from among 3 NOACs in patients with atrial fibrillation?**

**Kazuya Ishibashi**, Ayumu Fujioka, Yoshiki Akakabe

*Department of Cardiology, Saiseikai Kyoto Hospital, Kyoto, Japan*

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**P19-6 Efficacy and Safety of Oral Rivaroxaban and Dabigatran in Elderly Patients with Non-Valvular Atrial Fibrillation**

**Naohiko Sahara**, Yoshinari Enomoto, Yasutake Toyoda, Takahito Takagi, Yuriko Narabayashi, Hikari Hashimoto, Naoshi Ito, Shingo Kujime, Takao Sakata, Mahito Noro, Kaoru Sugi

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**P19-7 Real world of the pharmacological treatment of anti-thrombotic therapy in atrial fibrillation cases in clinical practice**

**Nitaro Shibata**

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## VT 3

**Chairs Tomoo Harada**

*Department of Cardiology, St. Marianna University School of Medicine, Kanagawa, Japan*

**Motoki Hara**

*Department of Cardiology, Higashihiroshima Medical Center, Hiroshima, Japan*

### **P20-1 A case of successful epicardial ablation for sustained ventricular tachycardia associated with dilated cardiomyopathy**

**Masatsugu Nozoe<sup>1</sup>, Satoshi Tsujioka<sup>1</sup>, Yoji Mannouji<sup>1</sup>, Takeshi Serikawa<sup>1</sup>, Nobuhiro Suematsu<sup>1</sup>, Tooru Kubota<sup>1</sup>, Masanori Okabe<sup>1</sup>, Yusuke Yamamoto<sup>1</sup>, Kyoko Soejima<sup>2</sup>**

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*<sup>2</sup>Division of Cardiology, Kyorin University, Tokyo, Japan*

### **P20-2 Usefulness of Intracardiac Echocardiography (CARTO SOUND) to Guide Ablation for Ventricular Arrhythmia Originated from Aortic Cusp**

**Fumito Miyoshi, Miwa Kikuchi, Kaoru Tanno**

*Division of Cardiology Department of Medicine Showa University Koto Toyosu Hospital, Tokyo, Japan*

### **P20-3 Radiofrequency Catheter Ablation in Three Young Patients with Cardiac Arrest Induced by Ventricular Tachyarrhythmias**

**Yasuhiko Hori**

*Department of Cardiology, Matsudo City Hospital, Chiba, Japan*

### **P20-4 A case of ventricular tachycardia originated from the Purkinje fiber near the posterior papillary muscle**

**Mizuki Kato, Minoru Sato, Keisuke Otsu, Asami Kikuchi, Tsuneaki Honma, Takuya Myojo, Harutatsu Muto, Hiroshi Komatsu, Takeaki Kaneko, Masaaki Fujita, Junichi Teranishi, Takashi Takenaka**

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### **P20-5 The case that left ventricle posterior papillary muscle had a hard time for the PVC ablation of the origin**

**Shioto Yasuda<sup>1</sup>, Shunsuke Yoda<sup>1</sup>, Hirotaka Noda<sup>1</sup>, Taku Yokoyama<sup>1</sup>, Takeshi Arita<sup>1</sup>, Keita Odashiro<sup>1</sup>, Toru Maruyama<sup>2</sup>, Koichi Akashi<sup>1</sup>, Mitsuhiro Fukata<sup>3</sup>, Kazutaka Aonuma<sup>3</sup>**

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## Devices 3

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**Toshihiro Nakamura**

*Department of Cardiology, NHO Kyushu Medical Center, Fukuoka, Japan*

### **P21-1 Development of an innovative reporting system that enables the automatic archiving of remote monitoring alerts of pacing devices**

**Tetsuyuki Manaka**<sup>1</sup>, Morio Shoda<sup>1</sup>, Koichiro Ejima<sup>1</sup>, Daigo Yagishita<sup>1</sup>, Ken Kato<sup>1</sup>, Ryuta Henmi<sup>1</sup>, Nobuhisa Hagiwara<sup>1</sup>, Akihiro Tsukamoto<sup>2</sup>, Kuniyoshi Shinya<sup>3</sup>

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### **P21-2 Application of standard operating procedure for CIED patient care with remote monitoring system**

**Toru Asai**<sup>1</sup>, Kiyokazu Shimizu<sup>1</sup>, Koji Arata<sup>2</sup>, Katsuhiko Otsubo<sup>2</sup>, Kazufumi Okumura<sup>2</sup>, Hiroyuki Nagase<sup>2</sup>, Kentaro Mase<sup>2</sup>, Yosuke Hayashi<sup>2</sup>

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### **P21-3 The impact of catheter ablation for avoiding pacemaker implantation in patients with bradycardia-tachycardia syndrome**

**Yoshikazu Watanabe**, Yukiko Nakano, Takehito Tokuyama, Hiroshi Kawazoe, Hiroya Matsumura, Shunsuke Tomomori, Shinji Kishimoto, Yasuki Kihara

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### **P21-4 Estimation of the location of implantable cardiac electrical device leads using transthoracic 3-dimensional echocardiography**

**Akihiro Sunaga**, Masaharu Masuda, Takashi Kanda, Yasuhiro Matsuda, Masashi Fujita, Osamu Iida, Shin Okamoto, Takayuki Ishihara, Kiyonori Nanto, Tatsuya Shiraki, Takuya Tsujimura, Koji Yanaka, Shota Okuno, Masaaki Uematsu

*Kansai Rosai Hospital Cardiovascular Center, Hyogo, Japan*

### **P21-5 A review of safety and efficacy of oblique extrathoracic puncture method in device implantation and lead addition**

**Risa Kakinoki**, Shinji Ishimaru, Mariko Kawasaki, Motohito Tadokoro, Shunsuke Kitani, Teppei Sugaya, Tadashi Igarashi, Hiroaki Okabayashi, Jungo Furuya, Yasumi Igarashi, Keiichi Igarashi

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## ICD（メディカルプロフェッショナル）

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日本医科大学 心臓血管外科

### MP1-1 設定レートを下回るslow VT中に短い連結期のPVCが入ったことによる不適切作動の1例

小林 涼<sup>1</sup>, 竹内 均<sup>1</sup>, 吉沢 崇<sup>1</sup>, 芳賀 拓<sup>1</sup>, 山口智也<sup>1</sup>, 高橋美帆<sup>1</sup>, 飯塚 宏<sup>1</sup>, 水口紀隆<sup>1</sup>, 東祐圭<sup>2</sup>

<sup>1</sup>岡村記念病院ME科, <sup>2</sup>岡村記念病院不整脈センター

### MP1-2 VTzone180bpm、VFzone250bpm設定時のATP治療後からショック治療までの時間の検討

熊谷英明<sup>1</sup>, 富永新平<sup>2</sup>, 山崎恭平<sup>2</sup>, 小池直樹<sup>3</sup>, 小坂利幸<sup>4</sup>

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### MP1-3 CRTDにおける心室ペーシング後のブランキング延長によるT波オーバーセンス回避の方法

一柳 宏<sup>1</sup>, 因田恭也<sup>2</sup>, 吉田直樹<sup>2</sup>, 佐藤有紀<sup>1</sup>, 服部哲斎<sup>1</sup>

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### MP1-4 パルス幅固定化により除細動閾値が低減したBrugada症候群の1例

島野寛也<sup>1</sup>, 戸叶隆司<sup>2</sup>, 高野梨絵<sup>1</sup>, 小田切史徳<sup>2</sup>, 小松さやか<sup>3</sup>, 田淵晴名<sup>3</sup>, 関田 学<sup>3</sup>, 住吉正孝<sup>4</sup>, 中里祐二<sup>2</sup>, 代田浩之<sup>3</sup>

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### MP1-5 ICD診断機能により虚血イベントを疑い早期発見ができた1例～遠隔モニタリングSTエピソード～

奥田泰三, 松尾仁司, 土屋邦彦, 大久保宗則, 三宅泰次

岐阜ハートセンター臨床工学技士科

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松尾征一郎

東京慈恵会医科大学附属病院 循環器内科

### MP2-1 心房細動アブレーションを受ける患者への術前訪問の効果に関する検討

殿川麻美, 慶田毅彦, 藤田雅樹, 内間夏代, 松谷真由美, 高橋美羽, 礪波真弓, 三田村和信, 榎本晃子

江戸川病院循環器内科

### MP2-2 3Dマッピングシステムを用いた心房細動アブレーションにおけるCT Merge法2種の比較

根津将夫<sup>1</sup>, 横山慎二<sup>1</sup>, 宮下真希<sup>1</sup>, 古賀悠介<sup>1</sup>, 田辺貴幸<sup>1</sup>, 吉田 譲<sup>1</sup>, 関口 敦<sup>1</sup>, 長瀬宇彦<sup>2</sup>, 松本万夫<sup>2</sup>, 加藤律史<sup>2</sup>

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### MP2-3 肺静脈隔離術後にZipサージカルクロージャー®を使用した止血効果

齊藤彩乃<sup>1</sup>, 野崎麻衣<sup>1</sup>, 渡邊規子<sup>1</sup>, 岡元弥生<sup>1</sup>, 梅野直美<sup>1</sup>, 稲葉 理<sup>2</sup>, 山内康熙<sup>2</sup>, 関川雅裕<sup>2</sup>, 山下 周<sup>2</sup>, 平尾龍彦<sup>2</sup>

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### MP2-4 当院における冷凍カテーテルアブレーション後の穿刺部出血発症率の検討

宮本亜紀<sup>1</sup>, 銚之原寛代<sup>1</sup>, 田中宣暁<sup>2</sup>, 井上耕一<sup>2</sup>

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### MP2-5 当院における横隔膜筋電位モニタリング (CMAP) の有用性

中農陽介<sup>1</sup>, 小堀敦志<sup>2</sup>, 佐々木康博<sup>2</sup>, 石井利英<sup>1</sup>, 田中雄己<sup>1</sup>, 山城悠葵<sup>1</sup>, 中村悟士<sup>1</sup>, 水上千尋<sup>1</sup>, 吉川真由美<sup>1</sup>, 吉田哲也<sup>1</sup>, 井上和久<sup>1</sup>, 坂地一朗<sup>1</sup>, 古川 裕<sup>2</sup>

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## ECG Assessment 2

**Chairs** Yuji Kasamaki

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Hiroko Nawata

*Department of Internal Medicine, Edogawa Hospital, Tokyo, Japan*

### **P22-1 Risk Stratification of Ventricular Fibrillation in Brugada Syndrome Using Non-invasive Scoring Methods**

Hiroshi Kawazoe, Yukiko Nakano, Takehito Tokuyama, Akinori Sairaku, Hiroya Matsumura, Shunsuke Tomomori, Shinji Kishimoto, Yasuki Kihara

*Department of Cardiovascular Medicine, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan*

### **P22-2 Usefulness of Implantable Loop Recorder in detecting arrhythmic or non-arrhythmic events with unexplained syncope**

Takeshi Matsuura<sup>1</sup>, Kazumasa Adachi<sup>1</sup>, Yasutaka Hirayama<sup>1</sup>, Hideya Suehiro<sup>1</sup>, Tomomi Akita<sup>1</sup>, Yukinori Kato<sup>1</sup>, Hiroki Takada<sup>1</sup>, Kohei Kamemura<sup>1</sup>, Akira Matsuura<sup>1</sup>, Masahito Kawata<sup>1</sup>, Susumu Sakamoto<sup>1</sup>, Kenji Fukui<sup>2</sup>, Rieko Tsuboi<sup>2</sup>

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### **P22-3 Age-dependent Difference of Baroreflex Sensitivity in Patients with Reflex Syncope**

Yosuke Miwa<sup>1</sup>, Kyoko Soejima<sup>1</sup>, Toshiaki Sato<sup>1</sup>, Akiko Ueda<sup>1</sup>, Ikuko Togashi<sup>1</sup>, Kyoko Hoshida<sup>1</sup>, Satoshi Higuchi<sup>1</sup>, Noriko Matsushita<sup>1</sup>, Yuichi Momose<sup>1</sup>, Hideki Sato<sup>2</sup>, Hideaki Yoshino<sup>1</sup>

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### **P22-4 QRST angle as a predictor of LV dysfunction and dyssynchrony**

Munehiro Iiya<sup>1</sup>, Masato Shimizu<sup>1</sup>, Kikou Ri<sup>1</sup>, Rei Masuda<sup>1</sup>, Rena Nakamura<sup>1</sup>, Yasuaki Hada<sup>1</sup>, Kuniaki Nakano<sup>1</sup>, Tomomasa Takamiya<sup>1</sup>, Hiroshi Shimada<sup>1</sup>, Hiroyuki Fujii<sup>1</sup>, Noriyoshi Yamawake<sup>1</sup>, Mitsuhiro Nishizaki<sup>1</sup>, Harumizu Sakurada<sup>2</sup>, Mitsuaki Isobe<sup>3</sup>, Masayasu Hiraoka<sup>4</sup>

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### **P22-5 Distribution of the measurement of the synthesized additional chest lead of electrocardiogram in schoolchildren screening**

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### **P23-1 Pericardial effusion from a right atrial appendage pocket**

**Erika Yamashita<sup>1</sup>, Kazuyuki Tanoue<sup>1</sup>, Norihito Nuruki<sup>1</sup>, Masahiro Sonoda<sup>1</sup>, Osamu Igawa<sup>2</sup>**

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### **P23-2 A case of supraventricular tachycardia that was difficult to distinguish atrio-ventricular junctional tachycardia and adenosine-sensitive atrial reentrant tachycardia**

**Keisuke Miyajima, Hayato Otani, Tomoaki Sakakibara**

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### **P23-3 A case report of atrioventricular nodal reentrant tachycardia with the multiple pathway affected by isoproterenol and sedation**

**Hajime Saeki, Miwa Miyoshi, Miho Kuramoto, Shumpei Kosugi, Tomoka Tabata, Hiroyasu Inui, Takashi Mukai, Yusuke Kobayashi, Masami Nakagawa, Nobuyuki Ogasawara, Shinji Hasegawa**

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### **P23-4 Safety and efficacy of slow pathway ablation with irrigated catheter**

**Takuro Nishimura, Yasuhiro Shirai, Susumu Tao, Takeshi Sasaki, Tetsuo Sasano, Mihoko Kawabata, Masahiko Goya, Kenzo Hirao**

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### **P23-5 A Case Report of Successful Catheter Ablation of Polymorphic Wide QRS Tachycardia**

**Yoshimasa Morimoto<sup>1</sup>, Shigeki Hiramatsu<sup>1</sup>, Arata Hagikura<sup>1</sup>, Katsumasa Sato<sup>1</sup>, Shogo Mukai<sup>2</sup>, Seiichi Haruta<sup>1</sup>**

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## ペースメーカー（メディカルプロフェッショナル）

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橋本賢一

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### MP3-1 デバイス植え込み患者における心房細動のリスクファクターと心房細動発生との関係

脇田亜由美<sup>1</sup>, 仲村健太郎<sup>2</sup>, 福山信隆<sup>1</sup>, 萬正寛子<sup>1</sup>, 山内惇熙<sup>1</sup>, 柴田祐治郎<sup>1</sup>, 具志幸樹<sup>1</sup>, 翁長加世子<sup>1</sup>, 花城 緑<sup>1</sup>, 比嘉勇吾<sup>1</sup>, 國場太輔<sup>1</sup>, 兒玉健志<sup>1</sup>, 山下慶子<sup>2</sup>, 名護元志<sup>2</sup>, 川島朋之<sup>2</sup>, 宮城直人<sup>2</sup>, 島尻正紀<sup>2</sup>, 國吉達也<sup>2</sup>, 上原裕規<sup>2</sup>

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### MP3-2 ペースメーカー植込み時のPSAによる測定と本体接続後のプログラマによる測定の波高値の変動の傾向

中島 修<sup>1</sup>, 吉田幸司<sup>1</sup>, 富沢直樹<sup>1</sup>, 鈴木綾子<sup>1</sup>, 佐藤 明<sup>2</sup>, 新田順一<sup>2</sup>

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### MP3-3 植込み型デバイス自動閾値測定機能の評価

岩藤 晋<sup>1</sup>, 坂手克彰<sup>1</sup>, 竹中祐樹<sup>1</sup>, 三好章仁<sup>2</sup>, 久保元基<sup>2</sup>, 西井伸洋<sup>2</sup>

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### MP3-4 通常の心房リードを使用した際のFFRW回避におけるPVAB調整の有用性

岡崎真紀子<sup>1</sup>, 井上完起<sup>2</sup>, 矢川真弓子<sup>2</sup>, 林 常夫<sup>1</sup>, 川幡俊夫<sup>1</sup>, 梅村 純<sup>2</sup>, 友池仁暢<sup>2</sup>

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### MP3-5 上室性頻拍性不整脈に対する、ATP機能の検討

都築 裕<sup>1</sup>, 武藤崇史<sup>1</sup>, 森本志保<sup>1</sup>, 梅田修平<sup>1</sup>, 平原真彦<sup>1</sup>, 海江田章<sup>1</sup>, 坂口俊樹<sup>1</sup>, 川上 徹<sup>2</sup>

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### MP3-6 発作性心房細動を認める患者に対し抗頻拍ペーシングが有用であった1例

武藤崇史<sup>1</sup>, 都築 裕<sup>1</sup>, 森本志保<sup>1</sup>, 梅田修平<sup>1</sup>, 平原真彦<sup>1</sup>, 海江田章<sup>1</sup>, 坂口俊樹<sup>1</sup>, 川上 徹<sup>2</sup>

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## 心電図1 (メディカルプロフェッショナル)

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### MP4-1 指尖容積脈波を用いた末梢血管自律神経機能評価

濱田里美<sup>1</sup>, 石原有理<sup>1</sup>, 角 勇樹<sup>1</sup>, 井上芳徳<sup>2</sup>, 磯部光章<sup>3</sup>, 平尾見三<sup>4</sup>, 笹野哲郎<sup>1</sup>

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### MP4-2 電気生理学的検査では検出できずトレッドミル検査で検出しえた高度房室ブロックにステロイド治療が奏功した心サルコイドーシスの一例

山崎正之<sup>1</sup>, 今村公威<sup>2</sup>, 藤原竜童<sup>2</sup>, 柴田浩遵<sup>2</sup>, 吉永仁香<sup>1</sup>, 小川正子<sup>1</sup>, 藤田淳子<sup>1</sup>, 高岡理恵<sup>1</sup>, 衣笠 宏<sup>1</sup>, 福田晃子<sup>1</sup>, 大嶋里美<sup>1</sup>, 中平純子<sup>1</sup>, 友近美穂<sup>1</sup>, 柏山和行<sup>1</sup>, 安田栄泰<sup>1</sup>, 大井茂昭<sup>1</sup>, 西川寿子<sup>1</sup>, 今津直子<sup>1</sup>, 深田恵利奈<sup>1</sup>, 志手淳也<sup>2</sup>

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### MP4-3 取り下げ

### MP4-4 ホルター心電図記録中に徐脈から心停止に至った3例の報告

新谷知世<sup>1</sup>, 渡邊英一<sup>2</sup>, 越川真行<sup>2</sup>, 市川智英<sup>2</sup>, 山本真由美<sup>2</sup>, 奥田健太郎<sup>2</sup>, 祖父江嘉洋<sup>2</sup>, 原田将英<sup>2</sup>, 藤原麻未<sup>1</sup>, 辻川圭亮<sup>1</sup>, 武田 淳<sup>1</sup>, 山本 賢<sup>1</sup>, 北川文彦<sup>1</sup>, 尾崎行男<sup>2</sup>

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### MP4-5 取り下げ