

CURRICULUM VITAE

- I. **COMPLETE NAME** Hiroshi Nakagawa, M.D., Ph.D.
- II. **EDUCATION**
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|-------------------------------|---|-----------|
| Research Fellow | University of Oklahoma HSC Oklahoma City, OK | 1991-1993 |
| Ph.D. (Cardiac Physiology) | Post Graduate School of Medicine Hiroshima University School of Medicine Hiroshima, Japan | 1987-1991 |
| Residency (Cardiology) | National Cardiovascular Center Osaka, Japan | 1983-1986 |
| Residency (Internal Medicine) | Hiroshima University School of Medicine Hiroshima, Japan | 1981-1983 |
| M.D. | Hiroshima University School of Medicine Hiroshima, Japan | 1981 |
- III. **PROFESSIONAL**
- ACADEMIC:**
- | | |
|--|----------------|
| Director, Clinical Catheter Ablation Program University of Oklahoma Health Sciences Center, Oklahoma City, OK | 2010 - present |
| Professor of Medicine University of Oklahoma Health Sciences Center, Oklahoma City, OK | 2007 - present |
| Director, Translational Electrophysiology University of Oklahoma Health Sciences Center, Oklahoma City, OK | 2007 - present |
| Associate Director, Heart Rhythm Institute University of Oklahoma Health Sciences Center, Oklahoma City, OK | 2007 - present |
| Professor of Medicine Research University of Oklahoma Health Sciences Center, Oklahoma City, OK | 2005 - 2007 |
| Associate Professor of Medicine Research University of Oklahoma Health Sciences Center, Oklahoma City, OK | 1999 - 2005 |
| Assistant Professor of Medicine Research University of Oklahoma Health Sciences Center, Oklahoma City, OK | 1994 - 1999 |

Research Associate
University of Oklahoma Health Sciences Center, Oklahoma City, OK

1993 - 1994

IV. CERTIFICATION OR BOARD STATUS

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| National Board of Medical Examiners in Japan | 1981 |
| Board of Internal Medicine in Japan | 1991 |
| Board of Cardiology in Japan | 1994 |
| Board of Clinical Electrophysiology in Japan | 2012 |

V. LICENSES

Active:

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| Japanese Medical Licensure | 1981 |
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VI. RESEARCH AND SCHOLARSHIP

Research Grants and Contracts

Pending:

Source: Biosense Webster

Project Title: Effect of Number of Irrigation Holes on Radiofrequency Lesion Size Using an Irrigated Ablation Catheter in a Canine Model

Study Period: 11/12/14 – 11/12/17

Funding: \$346,975

Principal Investigator: Hiroshi Nakagawa, MD, PhD (2%)

This study will test the device to determine if the number of holes in the tip of the ablation catheter has an effect on the scar or lesion formation which is made when applying energy (radiofrequency energy) to specific sites in the heart where the irregular or abnormal heart beat originates.

Radiofrequency current is an energy source that the catheter uses during the medical procedure (known as an ablation procedure). The energy applied through the catheter produces heat which causes tissue heating to produce a scar (or lesion) on specific sites in the heart

Active:

Source: Advanced Cardiac Therapeutics (ACT), Inc

Project Title: Prediction of Radiofrequency Ablation Lesion Size by Force-Power-Time Index in Canine Beating Heart

Study Period: 11/12/14 – 11/12/17

Funding: \$231,317

Principal Investigator: Hiroshi Nakagawa, MD, PhD (2%)

The purpose of this research study is to test a new technology which may predict RF lesion size during RF ablation using a canine thigh muscle preparation and in beating heart model. If the new generation microwave sensor catheter can accurately predict the tissue temperature during RF

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applications, RF lesion size will be able to predict during RF applications. If the study provides good results, the catheter will be developed for use in humans.

Source: Biosense Webster

Project Title: Evaluation of a Contact Force Sensing Irrigated Radiofrequency Ablation Catheter for Linear Lesion Formation Using a Canine Model

Study Period: 07/01/13 – 6/31/16

Funding: \$231,317

Principal Investigator: Hiroshi Nakagawa, MD, PhD (2%)

The purpose of the proposed animal study is to test the device to see if it can produce scars in a line called linear ablation lesions without causing the blood to clot at that site. The device is an irrigated ablation catheter with a contact force sensor which is designed to produce scars in a line without the formation of a blood clot at the site of the tissue heating. If the study provides good results the catheter will be further developed for use in humans.

Source: Biosense Webster

Project Title: Radiofrequency Ablation Lesion Assessment Using Novel Catheter Sensors in a Canine Model

Study Period: 07/01/13 – 6/31/16

Funding: \$231,317

Principal Investigator: Hiroshi Nakagawa, MD, PhD (2%)

This study will test new and/or improved medical devices designed to treat patients with irregular heart rhythms and may cure patients who suffer from these irregular heart rhythms known as arrhythmias. The energy causes tissue to heat up to produce scar or lesions on that specifically targeted area of the heart which will stop the irregular heart beat from occurring. The purpose of the proposed animal study is to test novel sensors on the catheters to monitor ablation lesion formation in the canine thigh muscle preparation and in beating hearts.

Source: Biosense Webster

Project Title: Novel Multi-electrode Catheter Mapping System for Automatic Rapid Identification of Arrhythmogenic Foci

Study Period: 07/01/13 – 6/31/16

Funding: \$231,317

Principal Investigator: Hiroshi Nakagawa, MD, PhD (2%)

This study will test a novel heart mapping technology which can identify the location in the heart where an abnormal heart rhythm begins. A novel catheter uses many electrodes to record electrical signals within the heart to identify the point or origin or foci of an abnormal heart rhythm. We will compare this novel mapping system to the conventional, point-by-point mapping system in a canine model. This advancement will assist doctors in mapping the site of origination of the abnormal heart rhythm (arrhythmia) and allow them to focus the energy from the ablation catheter to that specific site in the heart thereby increasing the chances of curing the patient of the abnormal heart rhythm.

Source: Biosense Webster

Project Title: Prediction of Radiofrequency Ablation Lesion Size by Force-Power-Time Index in Canine Beating Heart

Study Period: 01/15/13 – 12/31/16

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Funding: \$231,317

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study will test a new technology which may cure patients with arrhythmias (abnormal or irregular heart rhythm). The new ablation catheter has a new sensor to measure contact force and direction of contact force between the ablation catheter the surface of the heart. This study will determine the relationship between strength of contact force, RF power, application time (Force-Power-Time Index) and ablation lesion size.

Source: Biosense Webster

Project Title: Evaluation of a Novel Ablation Catheter with Micro-Electrode Sensors in a Thigh Muscle Preparation and in vivo Beating Heart Model

Study Period: 01/15/13 – 12/31/16

Funding: \$131,317

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of this research study is to test a new micro-electrode sensor technology which may predict RF lesion size during RF ablation using a swine thigh muscle preparation and in vivo beating heart model.

Source: Biosense Webster

Project Title: Catheter Ablation of Renal Sympathetic Nerve Using a Novel Irrigated Radiofrequency Catheter

Study Period: 10/01/12 – 09/30/15

Funding: \$131,317

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of this research study is to test a new ablation catheter using radiofrequency energy determine for reduction of the renal sympathetic nerve activities (“therapeutic renal sympathetic denervation”) in a canine model.

Source: Biosense Webster

Project Title: Evaluation of a “Novel Saline Irrigated Contact Force Sensing Ablation Catheter” for Pulmonary Vein Isolation and Prevention of Pulmonary Vein Stenosis in a Canine Model

Study Period: 04/01/12 – 03/31/15

Funding: \$231,317

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of this study is to evaluate the efficacy for pulmonary vein ablation and the risk of pulmonary vein stenosis during catheter ablation of AF using RF ablation catheter system in a canine model.

Source: Vimecon

Project Title: Evaluation of a Novel Laser Ablation Catheter for Lesion Formation Using a Canine Model

Study Period: 06/15/13 – 06/30/16

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study will test a new technology which may cure patients with arrhythmias (irregular heart rhythm). Laser light is an energy source for ablation which induces tissue heating to produce heart lesions. The purpose of the proposed animal study is to determine a novel laser ablation catheter

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can produce ablation lesions without clot formation in the canine thigh muscle preparation and in beating hearts.

Source: Securus Medical Group Inc

Project Title: Evaluation of a "Novel Esophageal Temperature Monitoring System" to prevent left atrial-esophageal injury during pulmonary vein isolation procedure in a canine model

Study Period: 11/01/12 – 10/31/15

Funding: \$163,200

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

The purpose of this study is to test a novel esophageal temperature monitoring system to identify the risk of esophageal injury during catheter ablation of AF using a canine model.

Source: Japan Life Line Co., Ltd.

Project Title: Evaluation of a Novel Contact Force Sensing Ablation Catheter in a Canine Thigh Muscle Preparation and in vivo Beating Heart

Study Period: 06/30/12 – 07/01/15

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study will test a new technology which may cure patients with rapid heart rhythm.

Radiofrequency (RF) current is energy source for ablation which induces tissue heating to produce ablation lesions. The purpose of this research study is to test a new contact force sensor technology which may predict RF lesion size during RF ablation using a canine thigh muscle preparation and in vivo beating heart model.

Source: AtriCure

Project Title: Evaluation of a Novel Cryo-Ablation Catheter Using Super Critical Nitrogen in a Canine Thigh Muscle Preparation

Study Period: 02/01/11 – 01/31/14

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study will test a new technology which may cure patients with arrhythmias (irregular heart rhythm). The aim of this study is to examine a new catheter which will be used for a treatment of cardiac rhythm disorder (catheter ablation). The new ablation catheter has a tip electrode that cools (-120 degree C) to produce lesions in the heart. This study will determine the relationship between strength of contact force and ablation lesion size in a canine thigh muscle preparation.

Source: VytronUS, Inc.

Project Title: Controllability and efficacy of ultrasound ablation system and safety of adjacent structures, i.e., esophagus

Study Period: 07/01/13 – 06/30/16

Funding: 136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

The purpose of the proposed animal study is to determine a novel ultrasound ablation catheter can produce greater ablation lesions without clot formation in the canine thigh muscle preparation and in beating hearts.

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Source: Bard EP Division

Project Title: Assessment of esophageal injury during pulmonary vein isolation procedure using the over the wire mesh ablation system

Study Period: 01/15/11 – 09/06/13

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study of this study is to evaluate the risk of esophageal injury during catheter ablation of AF using pulmonary mesh ablation catheter system in a canine model.

Source: Stereotaxis, Inc.

Project Title: Characterization of the power and lesion volume relationship for the magnetic irrigated catheter in a canine beating heart model

Study Period: 07/01/13 – 12/31/15

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

The purpose of the proposed animal study is to determine a novel magnetic catheter maneuvering system with an irrigated ablation catheter can produce effective ablation lesions without clot formation in the canine thigh muscle preparation and in beating hearts.

Source: Boston Scientific (Formerly Rhythmia Medical)

Project Title: Evaluation of a Novel Non-Contact Force Sensing Catheter and Catheter Mapping System for Rapid Identification of Arrhythmogenic Foci

Period: 11/01/12 – 02/02/14

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study will test a new technology which can identify foci producing an arrhythmia (abnormal heart rhythm). A novel catheter uses many electrodes to record electrical signals within the heart to identify the foci of arrhythmia. We will compare the novel mapping system to the conventional, point-by-point mapping system using a canine model.

Source: Boston Scientific

Project Title: Assessment of Lesion Gaps Using the Map & Ablate Open-Irrigated Catheter

Period: 11/01/12 – 10/30/14

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study will test a new technology which may cure patients with rapid heart rhythm. Radiofrequency (RF) current is energy source for ablation which induces tissue heating to produce ablation lesions. The purpose of this research study is to compare two new RF ablation catheters (Chilli II Cooled Ablation Catheter and the ThermoCool Open-Irrigated Catheter) for RF lesion size and incidence of thrombus using a canine thigh muscle preparation and in vivo beating heart model.

Source: LasCor, GMBH

Project Title: Canine study of non-contact infrared laser catheter for ablation of cardiac arrhythmias

Period: 09/15/11 – 07/22/14

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

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The purpose of this research study is to test a new catheter ablation technology which uses laser energy to destroy the abnormal atrial tissue which produces AF. If the novel laser ablation system can destroy the atrial tissue without any collateral damage (such as esophageal damage), AF can be treated safely using this laser ablation system.

Source: Sound Interventions, Inc.

Project Title: A novel high-intensity focused ultrasound ablation catheter for sympathetic denervation of the renal artery for treatment of hypertension

Period: 01/01/13 – 02/28/2015

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

Treatment of hypertension remains suboptimal and the percentage of patients achieving adequate blood pressure control remains low. Sympathetic nerves adjacent to the wall of the renal artery (blood supply to the kidney) play an important role for initiation and maintenance of hypertension. The purpose of this research study is to determine whether a novel ultrasound ablation catheter can eliminate or reduce the renal sympathetic nerve activities ("therapeutic renal sympathetic denervation") using a canine model.

Source: Voyage Medical, Inc.

Project Title: Novel saline electrode ablation catheter incorporated with endoscopy for linear atrial ablation

Period: 07/13/11 – 07/12/2014

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of the proposed animal study is to determine a novel saline electrode ablation catheter combined with endoscopy can produce continuous linear lesions in the canine thigh muscle preparation and in beating hearts.

Source: Biosense Webster

Project Title: New Multi-Electrode Catheter Mapping System for Rapid Identification of Arrhythmogenic Foci

Study Period: 11/01/10 – 10/31/13

Funding: \$231,317

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study will test a new technology which can identify foci producing an arrhythmia (abnormal heart rhythm). A novel catheter uses 20 electrodes to record electrical signals within the heart to identify the foci of arrhythmia.

Source: EndoSense, Inc

Project Title: Evaluation of a novel contact sensor catheter for radiofrequency ablation in a canine model

Period: 10/01/09 – 09/30/13

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The aim of this study is to examine a new catheter which may eventually be used for a treatment of cardiac rhythm disorders. The new ablation catheter has a new sensor to control contact force of

the catheter to produce constant contact between the catheter and the surface of the heart. This study determine the relationship between strength of contact force and ablation lesion size with different incident angles, and determine relationship between catheter contact force and the incidence of a steam pop in the canine model.

Past/Completed:

Source: VascoMed (Biotronik)

Project Title: Evaluation of a Novel Saline Irrigated Gold Radiofrequency Ablation Catheter (AICath Flux and Trignum Flux, 3.5mm) for Production of Greater Ablation Lesions without Thrombus formation

Period: 11/01/09 – 01/13/13

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a novel irrigated gold ablation catheter and its ability to produce greater ablation lesions without clot formation in the canine thigh muscle preparation and in beating hearts.

Source: Advanced Cardiac Therapies

Project Title: Catheter Ablation Lesion Assessment Using Microwave Volumetric Temperature Measuring System to Prevent Esophageal Injury

Period: 07/16/11 – 07/30/13

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a new technology which may predict RF lesion size during RF ablation using a canine thigh muscle preparation and in beating heart model. If the microwave sensor catheter can accurately predict the tissue temperature during RF applications, RF lesion size will be able to predict during RF applications.

Source: Mayo Clinic

Project Title: A novel radiofrequency ablation catheter for prevention of coagulum formation

Period: 07/01/2011 – 07/15/2013

Funding: \$136,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study evaluated a novel ablation catheter testing the ability to produce continuous linear lesions without thrombus formation in the canine thigh muscle preparation and in beating hearts

Source: St. Jude Medical, AF Division

Project Title: Prevention of Left Atrial Fistula after Radiofrequency Ablation of Left Atrium

Period: 03/01/08 – 02/28/12

Funding: Total Costs \$100,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a new technology which may prevent esophageal injury related to catheter ablation procedures for the treatment of patients with arrhythmias (abnormal heart rhythm), i.e. atrial fibrillation. A novel esophageal cooling balloon catheter was tested in this study, which cools the esophageal wall to prevent its injury, when radiofrequency catheter ablation is performed in the left atrium very close to the esophagus.

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Source: St. Jude Medical, AF Division

Project Title: A validation of the Ensite CFE maps: A CFAE recording study

Period: 12/21/10 – 12/20/11

Funding: Total Costs \$30,490

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a new new ablation catheter which has a new sensor to measure electrode-tissue coupling between the ablation catheter the surface of the heart. This study assessed the relationship between strength of electrode-tissue coupling, and ablation lesion size.

Source: Stereotaxis, Inc.

Project Title: Onsite training and technology demonstration of Niobe computer controlled magnetic navigation system for cardiac ablation of arrhythmias

Study Period: 04/15/11 – 04/14/12

Funding: Total costs \$18,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study was designed to serve as a training and education center to train physicians (cardiac electrophysiologists) to use a new the Niobe Magnetic Navigation System with the Odyssey system.

Source: Rhythmia Medical, Inc.

Project Title: Novel Non-Contact Catheter Mapping System for Rapid Identification of Arrhythmogenic Foci

Period: 01/31/09 – 01/31/2012

Funding: Total Costs\$10,630

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a new technology which can identify foci producing an arrhythmia (abnormal heart rhythm). A novel catheter uses many electrodes to record electrical signals within the heart to identify the foci of arrhythmia. We compared the novel mapping system to the conventional, point-by-point mapping system using a canine model.

Source: Biosense Webster, Inc

Project Title: Training of physicians in the use of a computerized electrophysiology monitoring and catheter locating system

Study Period: 10/01/05 – 07/13/11

Funding: Total Costs \$231,316

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study is designed to train physicians (cardiac electrophysiologists) to use a new electrophysiology mapping and catheter ablation system to allow cardiac mapping requiring no or minimized use of x-ray fluoroscopy, thereby reducing radiation exposure to patients and physicians. The 3D electro-anatomical mapping system (CARTO XP, Biosense Webster, Inc) is a computerized electrophysiologic catheter system which gives the exact 3D location of the catheter tip within a magnetic field in the heart without x-ray.

Source: St. Jude Medical, AF Division

Project Title: Evaluation of the Novel Neptune Catheter (High-Resolution Irrigated Ablation Catheter) in the Canine Thigh Muscle Preparation and In Vivo Hearts

Period: 06/01/08 – 06/30/11

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Funding: Total Costs \$40,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of the proposed is to evaluate a novel catheter that uses a flow of saline through the catheter, which cools the tip, allowing the use of higher power for catheter ablation while maintaining high-resolution mapping capability. The higher power will increase the depth of the ablation lesion and may increase the chance to eliminate arrhythmias.

Source: Biotronik, Inc.

Project Title: Evaluation of a Novel Gold Tip Radiofrequency Catheter for Prevention of Coagulum Formation

Period: 03/01/08 – 12/31/09

Funding: Total Costs \$58,800

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of the proposed animal study is to determine if a novel gold tip ablation catheter can produce continuous linear lesions without thrombus formation in the canine thigh muscle preparation and in beating hearts.

Source: St. Jude Medical, AF Division

Project Title: Evaluation of the novel "high resolution irrigated ablation catheter" in the canine thigh muscle preparation and *in vivo* hearts

Period: 02/01/08 – 02/28/09

Funding: Total costs \$157,076

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study examined a new novel catheter which uses a flow of saline through the catheter, which cools the tip, allowing the use of higher power for catheter ablation. The higher power will increase the depth of the ablation lesion and may increase the chance to eliminate arrhythmias.

Source: CryoCor, Inc

Project Title: The incidence of electrical reconnection between the left atrium and pulmonary vein after pulmonary vein isolation procedure: Comparison between cryo-thermia and radiofrequency ablation in a canine model

Study Period: 03/01/07 – 02/28/09

Funding: Total costs \$109,284

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study examined a new technology, a novel cryo-thermia ablation catheter, which may be used to treat patients with arrhythmias (abnormal heart rhythm), i.e., atrial fibrillation (AF). We studied whether a cryo-thermia ablation catheter can produce electrical isolation between the left atrium and the pulmonary vein and examine the incidence of electrical re-connection between the left atrium and the pulmonary vein after successful pulmonary vein isolation procedures.

Source: ProRhythm, Inc

Project Title: Evaluation of a novel esophageal cooling balloon catheter to prevent left atrial-esophageal injury during pulmonary vein isolation procedures using radiofrequency current and high intensity focused ultrasound (HIFU) in a canine model

Study Period: 02/01/05 – 01/31/09

Funding: Total costs \$100,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

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This study tested a new technology which may prevent esophageal injury related to catheter ablation procedures for the treatment of patients with arrhythmias (abnormal heart rhythm), i.e. atrial fibrillation. A novel esophageal cooling balloon catheter was tested in this study, which cools the esophageal wall to prevent its injury, when catheter ablation is performed in the left atrium very close to the esophagus.

Source: ProRhythm, Inc

Project Title: A novel ultrasound ablation catheter for linear atrial lesions

Study Period: 02/01/08 – 01/31/09

Funding: Total costs \$100,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study evaluated the optimal application parameters for a novel ultrasound catheter ablation system to produce continuous linear lesions without thrombus formation in the canine thigh muscle preparation and in beating hearts using ultrasound technology which is a unique energy source for ablation which does not require direct contact with the target tissue.

Source: NIH/NHLBI 1K23 HL0699 72-01-A1

Project Title: Determinants of Catheter Ablation Failure

Study Period: 01/01/03-12/01/08

Funding: Total costs \$495,700

Principal Investigator: Sunny S. Po, MD

Co-Investigator: **Hiroshi Nakagawa, MD, PhD (5%)**

This project utilized our extensive patient database to determine the reasons for failed catheter ablations

Source: Cardiofocus, Inc

Project Title: Evaluation of a novel endoscopic laser balloon ablation catheter in a canine model

Period: 01/31/07 – 12/31/08

Funding: Total costs \$189,277

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

The purpose of this study was to train clinical investigators in the use of the Laser Light Ring Balloon Ablation system prior to the start of human clinical trials.

Source: St. Jude Medical, AF Division

Project Title: Evaluation of the novel "pure external" cooling ablation catheter in the canine model

Period: 02/27/07 – 02/28/09

Funding: Total costs \$91,224

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (2%)**

This study tested a new novel catheter which uses a flow of saline through the catheter, which cools the tip, allowing the use of higher power for catheter ablation. The higher power will increase the depth of the ablation lesion and may increase the chance to eliminate arrhythmias.

Source: AtriCure, Inc.

Project Title: Thorascopic catheter ablation using a canine model

Study Period: 01/31/07 – 02/01/09

Funding: Total costs \$51,083

Principal Investigator: **Hiroshi Nakagawa, MD, PhD (1%)**

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The purpose of this study was to test a new technology which may cure patients with arrhythmias. A novel thoracoscopic catheter was used to access the pericardial space to position an ablation catheter at the epicardial surface of the heart. Radiofrequency energy was applied to destroy the abnormal tissues to cure arrhythmias. This approach will avoid the present introduction of the catheters into the heart and/or avoid multiple openings in the chest to terminate the abnormal heart rhythm disorders.

Source: Presbyterian Health Foundation Bridge Grant

Project Title: The Role of Surviving Myocardial Bundles within the Infarct Scar in Ischemia Induced Ventricular Tachycardia/Fibrillation

Study Period: 10/01/04-9/30/05

Funding: Total costs \$60,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

Co-Investigator: Phil Adamson, MD, Warren M. Jackman, MD, Ralph Lazzara, MD

This study examined the relationship between isolated late ventricular potential and the occurrence of ventricular tachycardia/fibrillation during acute ischemia.

Source: American Heart Association – Heartland Affiliate (Grant-in Aid)

Project Title: Prevention of Post-Infarction Sudden Cardiac Death during Acute Ischemia by Catheter Ablation

Study Period: 07/31/03-06/30/05

Funding: Total costs \$110,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

Co-Investigator: Phil Adamson, MD, Warren M. Jackman, MD, Ralph Lazzara, MD, Jaques MT deBakker, PhD

This study examined the relationship between isolated late ventricular potential and the occurrence of ventricular tachycardia/fibrillation during acute ischemia.

Source: AtriCure, Inc.

Project Title: Evaluation of the AtriCure Bipolar Linear Ablation Catheter in the Canine Thigh Muscle Preparation and *In Vivo* Hearts

Study Period: 01/01/03 – 01/14/05

Funding: Total costs \$46,500

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

The purpose examined whether the bipolar linear RF ablation catheter can produce a linear transmural lesion without coagulum formation in the canine thigh muscle and in beating hearts.

Source: Stereotaxis, Inc.

Project Title: Evaluation of catheter contact force during ablation using a novel magnetic navigation system

Study Period: 02/22/01 – 02/28/05

Funding: Total costs \$50,000

Principal Investigator: **Hiroshi Nakagawa, MD, PhD**

This study examined the relationship between strength of magnetic field and catheter contact force with different incident angles and determines the relationship between catheter contact and radiofrequency lesion size in the canine thigh muscle preparation and *in vivo* hearts.

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Source: Endocardial Solutions, Inc
Project Title: Evaluation of accuracy of the non-contact balloon mapping system (EnSite)
Study Period: 10/22/01 – 06/30/04
Funding: Total costs \$66,000
Principal Investigator: **Hiroshi Nakagawa, MD, PhD**
This study examined whether discrete subendocardial potentials from the left bundle (Purkinje potentials) can be mathematically reconstructed using the non-contact balloon mapping system.

Source: Bard Electrophysiology
Project Title: *In vivo* investigation of radiofrequency lesion generation using an expandable mesh electrode catheter in a canine model
Study Period: 09/25/01 – 08/13/04
Funding: Total costs \$252,000
Principal Investigator: **Hiroshi Nakagawa, MD, PhD**
This study investigated the safety and efficacy of an expandable mesh electrode catheter to isolate the pulmonary vein musculatures for treatment of atrial fibrillation.

Source: Irvine Biomedical, Inc.
Project Title: Evaluation of the ultrasound balloon ablation system in the canine thigh muscle preparation and *in vivo* hearts
Study Period: 11/27/01 – 08/13/04
Funding: Total costs \$15,000
Principal Investigator: **Hiroshi Nakagawa, MD, PhD**
This study investigated the safety and efficacy of an ultrasound balloon catheter to isolate pulmonary vein musculatures for treatment of atrial fibrillation.

Source: CATHEFFECTS, Inc
Project Title: Evaluation of the Vector mapping catheter (Desai VectorCath) in catheter ablation of canine thigh muscle preparation and *in vivo* hearts
Study Period: 01/31/03 – 02/01/04
Funding: Total costs \$11,901
Principal Investigator: **Hiroshi Nakagawa, MD, PhD**
This study investigated whether a phased RF current application using the Desai VectorCath Mapping Catheter can produce deeper RF lesions without coagulum formation.

Source: Bayless Medical
Project Title: Evaluation of the Novel Radiofrequency Transeptal Perforation Catheter System in the Canine Thigh Muscle Preparation and *In Vivo* Hearts
Study Period: 09/18/03 – 09/17/05
Funding: Total costs \$26,500
Principal Investigator: **Hiroshi Nakagawa, MD, PhD**
This study investigated whether the bipolar linear RF ablation catheter can produce a linear transmural lesion without coagulum formation in the canine thigh muscle and in beating hearts.

Source: NIH/NHLBI R01-HL66394:
Project Title: Neural Mechanisms of Ventricular Electrical Remodeling
Study Period: 10/1/00-09/30/04

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Funding: Total costs \$1,006,999

Principal Investigator: Phil Adamson, MD

Co-Investigator: **Hiroshi Nakagawa, MD, PhD**

This project studied the relationship between left ventricular repolarization and ventricular fibrillation using a canine sudden cardiac death model

Source: Oklahoma Health Research Program (OCAST) (AR6-059)

Title: Prevention of Post-Infarction Sudden Death by Ablation

Study Period: 12/01/96 - 11/30/98

Funding: Total direct costs \$148,110

Principal Investigator: Warren M. Jackman, M.D.

Co-Investigators: Kenichiro Otomo, M.D., Mauricio Arruda M.D. **Hiroshi Nakagawa MD, PhD.**, Ralph Lazzara M.D., Benjamin Scherlag, Ph.D., Eugene Patterson, Ph.D., Stephan Hull, Ph.D., Jan V. Pitha, M.D., Ph.D.

Funded Clinical Studies:

NAVI-STAR® *Thermo-Cool*™ Catheter for Endocardial Radiofrequency Ablation in Patients with Ventricular Tachycardia (Sponsor: Biosense Webster, Inc, **Co-PIs** Jackman, **Nakagawa**), IRB Approval Date: *April 2007*

Pivotal Clinical Study of the CardioFocus Endoscopic Ablation System (CF-EAS) for the Treatment of Symptomatic Atrial Fibrillation (Sponsor: CardioFocus, Inc, **Co-PIs** Jackman, **Nakagawa**), IRB Approval Date: *April 2006*

Early Detection and Treatment of Esophageal Injury after Catheter Ablation for Atrial Fibrillation (Sponsor: CARI, **PI**, Beckman KJ, **Co-Investigator Nakagawa**), IRB approved December 2006

A Clinical Study for the Assessment of Safety and Efficacy of the High Intensity Focused Ultrasound (HIFU II) System for the Treatment of Atrial Fibrillation (Sponsor: ProRhythm, Inc, **Co-PIs Nakagawa**, Jackman), IRB Approval Date: May 10, 2006

VERITAS Ventricular Electroanatomical Mapping to Assess the Risk of Life Threatening Arrhythmias (Sponsor: Biosense Webster, Inc, **Co-PIs** Jackman, **Nakagawa**), IRB Approval Date: January 22, 2004

Comparison of the Safety and Efficacy of Catheter Ablation of Atrial Fibrillation Between Pulmonary Vein Isolation Alone (Conventional Approach) and Pulmonary Vein Isolation Combined with Endocardial Ablation of Autonomic Ganglia Adjacent to the Pulmonary Veins (Sponsor: CARI, **Co-PIs** Jackman, **Nakagawa**), IRB Approval Date: January 29, 2004

A Clinical Study for the Assessment of Safety and Efficacy of the High Intensity Focused Ultrasound (HIFU) System for Pulmonary Vein Isolation (Sponsor: ProRhythm, Inc, **Co-PIs Nakagawa**, Jackman), IRB Approval Date: January 26, 2004

ACES Next Generation CARTO System Evaluation (Sponsor: Biosense Webster, **Co-PIs: Nakagawa**, Jackman), IRB Approval Date: July 1, 2003

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Feasibility Study for Using Deflectable Irrigated Tip Electrode Catheter for Radiofrequency Ablation of Accessory Pathways in Patients with Prior Ablation Failure (Sponsor Biosense Webster, Inc, PI Jackman, *Co-Investigator Nakagawa*), IRB Approval Date: December 1, 2003

Long Term Follow-Up of Patients Undergoing Catheter Ablation (Sponsor: CARI, *Co-PIs Nakagawa*, Jackman), IRB Approval Date: August 25, 2003

ATTRAC Arrhythmia Treatment with a Thermocouple Radiofrequency Ablation Catheter (ATTRAC) Study (Sponsor: Biosense Webster, PI Beckman, *Co-Investigator Nakagawa*), IRB Approval Date: November 25, 2002

Evaluation of P Wave Morphology Using New QRS-T Wave Subtraction Software (Sponsor: CARI, *PI Nakagawa*), IRB Approval Date: August 12, 2001

Radiofrequency Catheter Ablation of Macroreentrant Left and Right Atrial Tachycardia and Non-Macroreentrant Left Atrial Tachycardia Using a Saline Irrigated Electrode Catheter (Sponsor: Biosense Webster, Inc, *Co-PIs* Jackman, *Nakagawa*), IRB Approval Date: September 21, 2000

NAVI-STAR® *Thermo-Cool*™ Catheter for Ablation of Atrial Fibrillation (Sponsor: Biosense Webster, Inc, *Co-PIs* Jackman, *Nakagawa*), IRB Approval Date: July 16, 2001

Teaching Materials

Course Syllabus "Advanced Course for Radiofrequency Catheter Ablation of Cardiac Arrhythmias" Sponsored by the Cardiac Arrhythmia Research Institute at the University of Oklahoma Health Sciences Center, Oklahoma City, OK

Other Scholarly Activities and Creative Achievements

Wittkamp F, Nakagawa H. IRRIGATED CATHETER AND METHOD, IN PARTICULAR FOR ABLATION AND LIKE TECHNIQUES, US Patent # 7,998,141, Issued August 16, 2011, Assigned to University Medical Center Utrecht and the University of Oklahoma Health Sciences Center

Wittkamp F, Nakagawa H. CATHETER AND METHOD, IN PARTICULAR FOR ABLATION AND LIKE TECHNIQUES, US Patent #7,815,635, Issued October 19, 2010, Assigned to University Medical Center Utrecht and the University of Oklahoma Health Sciences Center

VII. PUBLICATIONS

Peer Reviewed Publications (Refereed journals)

1. Ikeda A, *Nakagawa H*, Hendrik Lambert H, Shah DC, Fonck E, Yulzari A, Sharma T, Pitha JV, Lazzara R, Jackman WM. Relationship Between Catheter Contact Force and Radiofrequency Lesion Size and Incidence of Steam Pop in the Beating Canine Heart: Electrode Amplitude,

Impedance and Electrode Temperature are Poor Predictors of Electrode-Tissue Contact Force and Lesion Size. *Circ Arrhythm Electrophysiol* 2014;7:7: Epub

2. **Nakagawa H** and Jackman WM. Electroporation (Revival of DC Ablation): New Approach for Increasing Epicardial Ablation Safety in Close Proximity to a Coronary Artery: *Circ Arrhythm Electrophysiol* 2014;7:779-780.
3. Natale A, Reddy VY, Monir G, Wilber DJ, Bruce D, Lindsay BD, Thomas McElderry HT, Charan Kantipudi C, Mansour MC, Melby DP, Packer DL, **Nakagawa H**, Zhang B, Stagg RB, Boo LM, Marchlinski FE. Paroxysmal Atrial Fibrillation Catheter Ablation with a Contact Force Sensing Catheter – First Results of the Prospective Multicenter SMART-AF Trial. *J Am Coll Cardiol* 2014;64:647-656.
4. Stavrakis S, Jackman WM, **Nakagawa H**, Sun Y, Xu Q, Beckman KJ, Lockwood D, Scherlag BJ, Lazzara R, Po SS. Risk of coronary artery with radiofrequency ablation and cryoablation of epicardial posteroseptal accessory pathways within the coronary venous system. *Circ Arrhythm Electrophysiol* *Circ Arrhythm Electrophysiol* 2014;7:113-119.
5. **Nakagawa H**, Kautzner J, Natale A, Peichl P, Cihak R, Wichterle D, Ikeda A, Santangeli P, Di Base L, Jackman WM. Locations of high contact force during left atrial mapping in atrial fibrillation patients: Electrogram amplitude and impedance are poor predictors of electrode-tissue contact force for ablation of atrial fibrillation. *Circ Arrhythm Electrophysiol* 2013;6:746-753.
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8. Calkins H, Kuck KH, Cappato R, Brugada J, Camm AJ, Chen SA, Crijns HJ, Damiano RJ Jr, Davies DW, DiMarco J, Edgerton J, Ellenbogen K, Ezekowitz MD, Haines DE, Haissaguerre M, Hindricks G, Iesaka Y, Jackman W, Jalife J, Jais P, Kalman J, Keane D, Kim YH, Kirchhof P, Klein G, Kottkamp H, Kumagai K, Lindsay BD, Mansour M, Marchlinski FE, McCarthy PM, Mont JL, Morady F, Nademanee K, **Nakagawa H**, Natale A, Nattel S, Packer DL, Pappone C, Prystowsky E, Raviele A, Reddy V, Ruskin JN, Shemin RJ, Tsao HM, Wilber D. 2012 HRS/EHRA/ECAS Expert Consensus Statement of Catheter and Surgical Ablation of Atrial Fibrillation: Recommendations for Patient Selection, Procedural Techniques, Patient Management and Follow-up, Definitions, Endpoints and Research Trial Design. *Europace* 2012;15:528-606
9. Calkins H, Kuck KH, Cappato R, Brugada J, Camm AJ, Chen SA, Crijns HJ, Damiano RJ Jr, Davies DW, DiMarco J, Edgerton J, Ellenbogen K, Ezekowitz MD, Haines DE, Haissaguerre M, Hindricks G, Iesaka Y, Jackman W, Jalife J, Jais P, Kalman J, Keane D, Kim YH, Kirchhof P, Klein G, Kottkamp H, Kumagai K, Lindsay BD, Mansour M, Marchlinski FE, McCarthy PM, Mont JL, Morady F, Nademanee K, **Nakagawa H**, Natale A, Nattel S, Packer DL, Pappone C, Prystowsky E, Raviele A, Reddy V, Ruskin JN, Shemin RJ, Tsao HM, Wilber D. 2012 HRS/EHRA/ECAS Expert

Consensus Statement of Catheter and Surgical Ablation of Atrial Fibrillation: Recommendations for Patient Selection, Procedural Techniques, Patient Management and Follow-up, Definitions, Endpoints and Research Trial Design. *J Interv Card Electrophysiol* 2012;33:171-257

10. Kuck KH, Reddy VY, Schmidt B, Natale A, Neuzil P, Saoudi N, Kautzner J, Herrera C, Hindricks G, Jais P, **Nakagawa H**, Lambert H, Shah DC. A Novel Radiofrequency Ablation Catheter Using Contact Force Sensing: Toccata Study. *Heart Rhythm* 2012;9:18-23
11. Wittkampf F, **Nakagawa H**. Benefit of Increased Irrigation Channels? *J Cardiovasc Electrophysiol* 2011;22:E89-E90
12. Calkins H, Kuck KH, Cappato R, Brugada J, Camm AJ, Chen SA, Crijns HJ, Damiano RJ Jr, Davies DW, DiMarco J, Edgerton J, Ellenbogen K, Ezekowitz MD, Haines DE, Haissaguerre M, Hindricks G, Iesaka Y, Jackman W, Jalife J, Jais P, Kalman J, Keane D, Kim YH, Kirchhof P, Klein G, Kottkamp H, Kumagai K, Lindsay BD, Mansour M, Marchlinski FE, McCarthy PM, Mont JL, Morady F, Nademanee K, **Nakagawa H**, Natale A, Nattel S, Packer DL, Pappone C, Prystowsky E, Raviele A, Reddy V, Ruskin JN, Shemin RJ, Tsao HM, Wilber D; Heart Rhythm Society Task Force on Catheter and Surgical Ablation of Atrial Fibrillation. 2012 HRS/EHRA/ECAS expert consensus statement on catheter and surgical ablation of atrial fibrillation: recommendations for patient selection, procedural techniques, patient management and follow-up, definitions, endpoints, and research trial design: a report of the Heart Rhythm Society (HRS) Task Force on Catheter and Surgical Ablation of Atrial Fibrillation. Developed in partnership with the European Heart Rhythm Association (EHRA), a registered branch of the European Society of Cardiology (ESC) and the European Cardiac Arrhythmia Society (ECAS); and in collaboration with the American College of Cardiology (ACC), American Heart Association (AHA), the Asia Pacific Heart Rhythm Society (APHRS), and the Society of Thoracic Surgeons (STS). Endorsed by the governing bodies of the American College of Cardiology Foundation, the American Heart Association, the European Cardiac Arrhythmia Society, the European Heart Rhythm Association, the Society of Thoracic Surgeons, the Asia Pacific Heart Rhythm Society, and the Heart Rhythm Society. *Heart Rhythm* 2012;9:632-696
13. Yu L, Scherlag BJ, Sha Y, Li S, Sharma T, **Nakagawa H**, Jackman WM, Lazzara R, Jiang H, Po SS. Interactions between atrial electrical remodeling and autonomic remodeling: how to break the vicious cycle. *Heart Rhythm* 2012;9:804-9
14. Scherlag BJ, **Nakagawa H**, Lazzara R, Po SS. Learning without burning: emerging knowledge of the autonomic innervation of the heart. *Pacing Clin Electrophysiol*. 2011;34:1457-1459.
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16. Stavrakis S, Madden G, Pokharel D, Po SS, **Nakagawa H**, Jackman WM, Sivaram CA. Transesophageal echocardiographic assessment of pulmonary veins and left atrium in patients undergoing atrial fibrillation ablation. *Echocardiography* 2011;28(7):775-81

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during left ventricular pressure and volume loading in relation to contraction-excitation feedback. Japanese Circulation Journal 1990;54:940-941. Presented at the Japanese Circulation Society, March 1990

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276. Asomuma H, Miyatake K, Izumi S, **Nakagawa H**, Omori F, Ueshima K, Sakakibara H, Nimura Y: Validation of a Doppler flow imaging technique for quantitative assessment of regurgitant volume using a phantom model. Japanese Circulation Journal 1986;50:748. Presented at the Japanese Circulation Society, March 1986
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278. Hiraoka H, Miyatake K, Izumi S, Matsuhisa M, Yamamoto K, **Nakagawa H**, Masuda K, Beppu S, Park Y-D, Omori F, Kinoshita N, Sakakibara H, Nimura Y: Intracardiac flow dynamics and the Austin-Flint murmur: a study with the real-time two-dimensional Doppler flow imaging. Japanese Circulation Journal 1986;50:479-480. Presented at the Japanese Circulation Society, March 1986

279. Takao S, Miyatake K, Izumi S, Kinoshita N, *Nakagawa H*, Beppu S, Park Y-D, Sakakibara H, Nimura Y: Flow dynamics in apical asynergy-observation by pulsed Doppler technique and its clinical implication. Japanese Circulation Journal 1985;49: 852. Presented at the Japanese Circulation Society, March 1985
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281. Nimura Y, *Nakagawa H*, Miyatake K, Izumi S, Kinoshita N, Sakakibara H: Noninvasive estimation of right ventricular systolic pressure by the Doppler technique in patients with tricuspid regurgitation. Circulation 1985;72:6. Presented at the American Heart Association, November 1985
282. *Nakagawa H*, Miyatake K, Izumi S, Kinoshita N, Sakakibara H, Nimura Y: Application of real-time two-dimensional Doppler flow imaging system for the measurement of pressure gradient across the mitral valve in mitral stenosis. J Am Coll Cardiol 1985;5:403. Presented at the American College of Cardiology, March 1985

Editorials

1. *Nakagawa H*, Seres KA, Jackman WM: Limitations of esophageal temperature-monitoring to prevent esophageal injury during atrial fibrillation ablation. Circ Arrhythmia Electrophysiol. 2008;1:150-152.
2. *Nakagawa H*, Jackman WM: Catheter ablation of macroreentrant atrial tachycardia in patients following atriotomy. Eur Heart J 2002;23:1566-1568

Original Invited Lectures

Symposium: CARDIOSTIM2014, Nic, France, 6/18-21/2014

Lecture: Influence of Anatomic Nerve System on Ventricular Arrhythmias

Chair: Basic Knowledge to Understand VT/VF

Lecture: Scar Mapping in VTs

Chair: New Modalities for Imaging VT/VF Patients

Symposium: Korea Heart Rhythm Symposium. 6/13-14/2014, Seoul, Korea

Lecture: How to Improve Ablation Outcome of Longstanding Persistent AF?

Lecture: New Technology for substrate mapping of Arrhythmias

Symposium: 35th Annual Scientific Sessions of the Heart Rhythm Society, San Francisco, CA, 5/7-10/2014

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Lecture: JS05: Catheter and Surgical Ablation of Complex Ventricular Arrhythmias: Novel system for Ultra High-Resolution Catheter Mapping of Scar-Related VT.

Chair: Mapping and Imaging to Improve AF Ablation

Lecture: VT/VF Summit: New Technologies for Treatment of Patients with VT: High Resolution Scar Mapping.

Symposium: Meet the Masters 2014. 4/12-13/2014, Seoul, Korea

Lecture: VT/VF Session: New Approaches to Mapping and Ablation

Lecture: AF Session: Role of New Mapping System

Lecture: AF Session: AT Post AF Ablation

Symposium: 17th Prague Workshop on Catheter Ablation 2014, 3/23-25/2014, Prague, Czech Republic

Lecture: What is important to create an adequate RF lesion?

Chairman: The Practice of Catheter Ablation I

Chairman of Live Demonstration: Catheter of Atrial Fibrillation

Symposium: 13th Atrial Fibrillation Symposium. 3/13-14/2014, Prague, Czech Republic

Lecture: What are the mechanisms of the big 5 complications?

Chairman: Lesion Prediction and Assessments

Symposium: 19th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/09-11/2014, Orlando, FL

Lecture: Creation of complete conduction block across the mitral isthmus using Stereotaxis System

Symposium: 5th Euro VT/VF Meeting 2013: 12/06-07/2013, Berlin, Germany

Lecture: Rapid Mapping with a New Multipolar Electrode System

Symposium: Venice Arrhythmias 2013. 10/27-29/2013, Venice, Italy

Chairman: Atrial Fibrillation from A to Z: New Insights in the Mechanism of AF

Chairman: Revisit of Brugada Syndrome: From Basic Mechanism to Catheter Ablation

Chairman: Atrial Fibrillation from A to Z: AF Ablation: Controversies 3: Clinical Issues

Discussant: Present your most challenging cases: Supraventricular Arrhythmias

Lecture: Ablation, Surgery and Hybrid Approaches for Treatment of Long-standing Atrial Fibrillation: Role of GP Ablation in AF Therapy

American Heart Association Scientific Sessions 2013. 11/16-20/2013, Dallas, TX

Chairman: Techniques/Technologies to Improve AF Ablation

Symposium: 8th International Symposium on Ventricular Arrhythmias: Euro VT/VF Meeting 2013: 10/18-19/2013, Philadelphia, PA

Lecture: Ultra Resolution Scar Mapping

Symposium: 6th Asian Pacific Heart Rhythm Society: 10/3-6/2013, Hongkong, China

Lecture: AF Ablation Complications: A Case Based Approach

Lecture: The New Gold Standard in Mapping and Navigation Technology

Symposium: The 28th Annual Scientific Meeting of the Japanese Heart Rhythm Society. 7/4-7/6/2013, Tokyo, Japan

Chairman: New Technology for Catheter Ablation

Lecture: New System for Rapid, Ultra High-Resolution Mapping in Patients with Complex Atrial Tachycardia/Flutter

Lecture: Strategy and Theoretical Background of Ventricular Tachycardia: Past to Future: Magnetic Maneuvering System for Robotic Left Ventricular Mapping/Ablation in Patients with Scar-Related Ventricular Tachycardia

Symposium: 34th Annual Scientific Sessions of the Heart Rhythm Society, Denver, CO, 5/8-11/2013

Lecture: Mini Course 05: Catheter Ablation of Accessory Pathways: Facing the Challenges: Avoiding Complications When Ablating Pathways in Unusual Locations.

Chair: Revisit of Brugada Syndrome: From Basic Mechanism to Catheter Ablation

Lecture: Preparing for the EP Board Exam: Intracardiac Electrograms, arrhythmia Mechanisms and Mapping: SVT Mapping

Lecture: Advantages of Contact Force Sensing Catheter for Mapping and Ablation: Preclinical experience, early human experience and future development (FPTI and lesion depth).

Symposium: The 77th Annual Scientific Meeting of the Japanese Circulation Society. 3/14-17/2013, Yokohama, Japan.

Lecture: Recent Topics on Pathophysiology of Atrial Fibrillation: Catheter Ablation of Ganglionated Plexi

Chairman: Are There Optimal Strategies for Catheter Ablation of Persistent Atrial Fibrillation

Lecture: New Generation of Irrigated Radiofrequency Ablation Catheter

Symposium: 16th Prague Workshop on Catheter Ablation 2013, 3/3-5/2013, Prague, Czech Republic

Lecture: How to control formation of ablation lesion

Chairman of Live Demonstration: Catheter of Ventricular Tachycardia

Chairman of Live Demonstration: Catheter of Atrial Fibrillation

Symposium: Thai EP Society. 2/19-20/2013, Bangkok, Thailand.

Lecture: Advantages of Contact Force Sensing Catheter for Mapping and Ablation: Evidence from Preclinical Data and Early Clinical Results

Symposium: 4th Euro VT/VF Meeting 2012: 11/16-17/2012, Berlin, Germany

Lecture: Ultra High Density Mapping

Symposium: American Heart Association 2012, Los Angeles, CA, 11/3-7/2012

Lecture: Atrial Fibrillation: 2012 and the Future: Rapid, High Resolution Automated Catheter Mapping for Complex Atrial Tachycardia

Symposium: 7th Annual International Symposium of Ventricular Arrhythmias: Pathophysiology and Therapy, 10/19-20/2012, New York, New York

Lecture: Rapid, Automated High Resolution LV Scar Mapping

Symposium: 5th Asian Pacific Heart Rhythm Society: 10/3-7/2012, Taipei, Taiwan

Lecture: Controlling Lesion Size and Incidence of Steam Pop by Controlling Contact Force, Radiofrequency Power, and Application Time (Force-Power-Time Index)

Lecture: Catheter Ablation of Scar-Related VT: Implication of Hemodynamic Support

Lecture: Catheter Ablation of Complex Left Atrial Tachycardia after Catheter and Surgical AF Ablation: Use of a Novel, Rapid, Automated High-Resolution Electroanatomical Mapping System

Lecture: Catheter Ablation of Scar-Related VT: Implication of Hemodynamic Support

Lecture: Advantages of Contact Force Sensing Catheter for Mapping and Ablation: Evidence from Preclinical Data and Early Clinical Results

Symposium: 2nd BW Summit on Complex Ablation: 8/16-17/2012, Sao Paulo, Brazil

Lecture: Impact of biophysics: irrigation, force, temperature

Lecture: Catheter Ablation of Complex Atrial Tachycardia after Catheter and Surgical Ablation of AF. How to make 3D activation map

Lecture: Contact Force Technology

Symposium: The 27th Annual Scientific Meeting of the Japanese Heart Rhythm Society. 7/5-7/12/2012, Yokohama, Japan

Lecture and Chairman: "Unknown Tracings of EPS"

Chairman: Catheter Ablation of Chronic Atrial Fibrillation

Lecture: Advantages of contact force sensing catheter for mapping and ablation

Lecture at HRS-JHRS Joint Session: Rapid, Automated High-Resolution 3D Electroanatomical Mapping System for Complex Atrial Tachycardia

Lecture: Catheter ablation of ganglionated plexi in patients with AF

Symposium: 33rd Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA, 5/9-12/2012

Lecture: Techniques and Technologies to Aid Successful AF and AT Ablation: Options for High Density 3-D Mapping

Lecture: Contact Force, a Real Life Experience and Early Clinical Results: Evidence from preclinical data

Lecture: Catheter Ablation of Ventricular Tachycardia in a Patient With Prior Myocardial Infarction Using Magnetic Catheter Maneuvering System and Percutaneous Left Ventricular Assist Device

Lecture: Comparison of High-Density Mapping Between Manual and Robotic Catheter in a Canine Atrial Linear Lesion Model

Symposium: The Monaco USA Arrhythmia Course, 4/5-7/2012, Monaco

Lecture: Miscellaneous Original Cases discussion

Chairman and Lecture: Electroanatomic mapping of complex arrhythmia Catheter and Cases discussion around the lecture theme

Symposium: 15th Prague Workshop on Catheter Ablation 2012, 3/8-10/2012, Prague, Czech Republic

Lecture: Irrigated tip technology has revolutionized catheter ablation of complex arrhythmias

Chairman of Live Demonstration: Catheter and surgical ablation of selected arrhythmias

Symposium: Carto Club in India: 2/3-4/2012, New Delhi, India

Lecture: Catheter Ablation of Complex Atrial Tachycardia after Catheter and Surgical Ablation of AF.

Lecture: Contact Force Sensing Technology

Symposium: 17th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/12-14/2012, Boston, MA

Lecture: Rapid, High Resolution Automatic Catheter Mapping

Symposium: 4th Asian Pacific Heart Rhythm Society: Annual Scientific Meeting of the Japanese Heart Rhythm Society. 9/18-22/2011, Fukuoka, Japan

Chairman: Joint Session: HRS and JHRS: Hybrid Ablation Therapy for Complex Arrhythmias

Lecture: New System for Rapid, High-Resolution Automated Mapping in Patients with Macroreentrant Atrial Tachycardia

Lecture: Benefits of Gold Tip Electrodes for Radiofrequency Ablation

Lecture: Progress of GP Ablation in AF Patients

Video Live Session: PVAI and GP ablation with remote magnetic navigation

Symposium: EuroPace. 6/26-29/2011, Madrid, Spain

Lecture: Joint Session North America: HRS/EHRA Europace 2011: Role of emerging integrated technology in advanced interventional electrophysiology: Enhancing ablation Success: role of contact sensing and other surrogates

Lecture: Catheter ablation of atrial macro re-entrant tachycardia: How to use 3D activation mapping

Symposium: 32nd Annual Scientific Sessions of the Heart Rhythm Society, San Francisco, CA, 5/4-7/2011

AF Summit: The Current Status and Future of AF Therapeutic Technology:

Lecture: Autonomic Innervation of the PVs and Atrium: Is This the Missing Link?

Debate: Classic Mapping or Anatomical Ablation – Which is Preferable for Complex SVT?

Anatomic and Substrate-Based Approaches Are Best for Complex SVT Ablation

Lecture: Core Curriculum: SVT – A role for mapping, alternative energy source, and navigation: How to take a points for accurate mapping of atrial tachycardia

Lecture: Joint Session: Catheter Ablation of Complex Ventricular Arrhythmias: Catheter Ablation of Ventricular Tachycardia Associated with Prior Myocardial Infarction: High-Density Mapping and Ablation of Isolated late Potentials Using Magnetic Catheter Maneuvering System

Symposium: 14th Prague Workshop on Catheter Ablation 2011

3/6-8/2011, Prague, Czech Republic

Lecture: Mapping systems for an electrophysiologist

Chairman: Catheter and surgical ablation of selected arrhythmias

Symposium: 5th International Symposium on Advanced in Arrhythmias,

2/21-23/2011, Rotterdam, The Netherlands

Lecture: Catheter ablation of complex atrial tachycardia after catheter and surgical ablation of atrial fibrillation using magnetic catheter maneuvering system

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Symposium: 16th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/13-15/2011, Boston, MA

Minisymposium: New Technologies in AF Ablation

Lecture: Advances in Electroanatomic Mapping Systems

Symposium: Cardiostim 2010. 6/16-6/19/2010, Nice, France

Lecture: European Heart Rhythm Association Program: Toys or Tools: New Technologies for the Interventional Electrophysiologist: Tissue contact sensing technologies

Lecture: Complex Electrophysiology and Ablation Techniques: Significance of identification of channels for ablation of complex flutter circuits.

Symposium: The 25th Annual Scientific Meeting of the Japanese Heart Rhythm Society. 6/11-6/12/2010, Nagoya, Japan

Lecture and Chairman: "Unknown Tracings of EPS"

Lecture: Catheter ablation complex atrial tachycardia after catheter and surgical ablation of atrial fibrillation

Lecture: Expectation to New Generation 3D Electroanatomical Mapping and Ablation

Lecture: New System for Rapid, High-Density Electroanatomical Catheter Mapping

Symposium: 31th Annual Scientific Sessions of the Heart Rhythm Society, Denver, CO, 5/12-15/2010

Lecture: Core Curriculum: Critical Anatomy for SVT Ablation: Coronary sinus and AV groove anatomy

Lecture: Case based Tutorial: Case Study

Chairman: New Era of Antiarrhythmic Drug and Anticoagulant Therapy in Atrial Fibrillation

Symposium: Interventional Pericardiology, Denver, CO, 5/11/2010

Lecture: Energy delivery in the pericardium: How is it different?

Symposium: 13th Prague Workshop on Catheter Ablation 2010

3/21-23/2010, Prague, Czech Republic

Lecture: Can contact force measurement change our strategy to ablate cardiac arrhythmias?

Chairman: Live Cases: Catheter Ablation of Complex Atrial Flutter

Symposium: 3rd Annual Western Atrial Fibrillation Symposium

2/26-27/2010, Park City, Utha

Lecture: Atrial Fibrillation Ablation: Problem Solving:

Role of contact force in improving ablation lesion

Symposium: 15th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/14-16/2010, Boston, MA

Lecture: Control of RF lesion size using a new contact force sensor

Debate: Entrainment mapping is preferable to 3-D activation sequence mapping for ablation of left atrial tachycardia after PVI - Con

Symposium: The 2nd Asian Pacific Heart Rhythm Society Scientific Sessions. 10/22-10/25/2009, Beijing, China

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Lecture: Role of Autonomic Nervous System in AF
Lecture: Strategy of Ablation of AT after AF Ablation
Lecture: Next Generation of 3D Mapping Systems

Symposium: The 21st Annual Scientific Meeting of the Japanese Heart Rhythm Society: Catheter Ablation Seminar. 10/16-10/18/2009, Kawagoe, Japan

Chairman: Catheter Ablation of Complex Atrial Tachycardia
Catheter ablation of left atrial flutter using a saline irrigated electrode
Lesion characteristics of saline irrigated ablation

Lecture: Catheter Ablation of Complex Atrial and Ventricular Tachycardias: Limitation of Entrainment Pacing and Pace mapping Techniques

Lecture: Catheter Mapping and Ablation of AVNRT

Live Demonstration: Catheter Ablation of Epicardial Ventricular Tachycardia

Commentator: Catheter Ablation of Complex Arrhythmia in patients Associated with Congenital Heart Disease

Symposium: The 4th International Symposium on Ventricular Arrhythmias: Pathology and Therapy 10/09-10/010/2009, Philadelphia, PA

Lecture: What themes in basic science will be important to clinical electrophysiology in the next 5-10 years.

Symposium: The 11th International Workshop on Cardiac Arrhythmias Venice. 10/04-10/07/2009, Venice, Italy

Chairman: Catheter Ablation of Atrial Fibrillation: Practice and Challenges

Lecture: Progress of ganglionated plexus ablation

Lecture: Ablation of left atrial ganglionated plexi guided by a computer algorithm

Lecture: Controversies in Electrophysiology/Cardiac Pacing:

Debate- Protagonist: Catheter ablation of in hemodynamically stable VT: Instead of ICD!

Symposium: the 12th Annual American College Cardiology (ACC) - Japanese College of Cardiology (JCC) Joint Symposium at the 57th Annual Scientific Session of the Japanese College of Cardiology taking place in Sapporo, Japan 9/18-9/20, 2009

Lecture: Management of Atrial Fibrillation: Medical or Ablation

Symposium: The 24th Annual Scientific Meeting of the Japanese Heart Rhythm Society. 7/02-7/04/2009, Kyoto, Japan

Lecture and Chairman: "Unknown Tracings of EPS"

Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Symposium: Clinical Applications & Beyond: Physician Training Seminars, 6/11-13, 2009, Marina del Rey, CA

Lecture: Past, Present and Future Technology: Ablation Tools & Energy Sources

Symposium: Cleveland Clinic: The Treatment of Cardiovascular Disease: Legacy and Innovation, 6/3-5, 2009, Cleveland, OH

Lecture: Atrial Fibrillation: Pathophysiology: Role of the Autonomic Nervous System

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Symposium: 30th Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA, 5/13-16/2009

Lecture: Debate: Catheter ablation for hemodynamically stable ischemic VT: Alternative to the ICD- Protagonist

Lecture: Core Curriculum: Anatomy for Electrophysiologist: A step by step dissection: Coronary sinus and AV groove.

Lecture: Core Curriculum: Integrated mapping and imaging for AF ablation: Contact sensors in classical and robotically directed ablation

Chairman: the Joint session of "Partnership around the World: Treatment of Ventricular Tachycardia"

Symposium: 6th Annual EP Fellows Conference: Answering the big questions in electrophysiology, Boston, MA, 5/12/2009

Lecture: Q&A on Pacing Manuevers in SVT, Parahisian Pacing and Other Pacing Manuevers During SVT, RA Isthmus Block, etc.

Symposium: Device Based Solutions for the Treatment and Clinical Management of AF Patients, Boston, MA, 5/15/2009

Lecture: AF Ablation – Evolution or Revolution?

Symposium: 12th Prague Workshop on Catheter Ablation 2009
4/05-07/2009, Prague, Czech Republic

Lecture: Basics of Radiofrequency Catheter Ablation: Factors Influencing Lesion Formation"

Lecture: Pathophysiologic Basis of Autonomic Ganglionated Plexi Ablation in Patients with Atrial Fibrillation.

Symposium: The 73rd Annual Scientific Meeting of the Japanese Circulation Society. 3/20-22/2009, Osaka, Japan.

Lecture: State of Art: Magnetic catheter maneuvering system for robotic ventricular mapping in Patients with Scar-Related Ventricular Tachycardias

Chairman: Plenary Session: New Era of Catheter Ablation for Ventricular Arrhythmias

Symposium: State of the Art of Ablation of AF: Dallas Symposium 3/06-07/2009, Dallas, TX,

Lecture: Pathophysiologic basic of GP ablation

Symposium: Expert Meeting Berlin 2009, 1/30-31/2009, Berlin, Germany

Lecture: New Insights into Lesion Formation

Symposium: 14th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/15-18/2009, Boston, MA

Lecture: Contribution of remote navigation with 3-D mapping to the management of atrial tachycardia after AF ablation

Symposium: Treatment Options for the AF Patient, 01/15-18/2009, Boston, MA

Lecture: Technical improvement of Atrial Ablation

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Symposium: 1st Asia-Pacific Heart Rhythm Society Scientific Session (APHRS2008), Singapore, 11/27-29/2008.

Lecture: Meet the Expert- Complex SVT and VT Ablation: Parahisian accessory pathways and atrial tachycardia

Lecture: Debate: GP Ablation is Helpful for Ablation of Atrial Fibrillation- Protagonist

Lecture: SVT Management: Typical and atypical atrial flutter ablation

Lecture: Meet the Experts- AF: How to choose the ablation tools: Energy setting

Symposium: Advanced Ablation Workshop Endo-Surgery Institute in Cincinnati, 11/13/14/2008, Cincinnati, OH

Lecture: Biophysics of catheter Ablation using a saline irrigated electrode

Symposium: Intensive Review of Cardiac Electrophysiology: An Interactive EP Fellow's Update, 10/31-11/02, 2008, New York, NY

Lecture: Biophysics of catheter Ablation

Symposium: Clinical Applications and Beyond: Physician Training Seminars, 10/23-24/2008, Las Vegas, NV

Lecture: Understanding and avoiding complications in AF procedures

Symposium: Australasian CARTO Symposium 2008, 10/17-19/2008, Sydney, Australia

Lecture: Case Presentation of Complex SVT ablation

Lecture: Catheter ablation of VT with prior myocardial infarction

Lecture: Catheter mapping/ablation of macroreentrant atrial tachycardia: limitations of entrainment pacing

Lecture: Progress of GP Ablation in Patients with Atrial Fibrillation

Symposium: Ablating complex arrhythmias seminar, 10/11-12/2008, Las Vegas, NV

Lecture: Pre-clinical lesion characterization of various energy sources

Symposium: First Annual Conference of Europe AF, London, UK, 06/15-16, 2008

Chairman: Video demonstration of new and investigational technologies

Lecture: Percutaneous interventional therapies: How to best accomplish them: What to expect today? - Autonomic modification

Symposium: The 23rd Annual Scientific Meeting of the Japanese Heart Rhythm Society. 5/31-6/01/2008, Yokohama, Japan

Lecture: Approval Process of New Devices in US

Lecture and Chairman: "Unknown Tracings of EPS"

Lecture: High-Intensity Focused Ultrasound Balloon Catheter for Ablation in Patients with Atrial Fibrillation.

Lecture: Progress of GP Ablation in Patients with Atrial Fibrillation

Symposium: 29th Annual Scientific Sessions of the Heart Rhythm Society, San Francisco, CA, 5/14-17/2008

Lecture: Mini-Course: Ablative approach to left atrial tachycardia: 3-D Mapping

Lecture: Core Curriculum: Balloon based PV isolation: High focused Ultrasound

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Chairman: Non-ischemic VT/VF: From cell to bedside (Joint session: Coalition of Organizations in Pacing & Electrophysiology and Japanese Heart Rhythm Society)

Symposium: The 72st Annual Scientific Meeting of the Japanese Circulation Society. 3/27-30/2008, Fukuoka, Japan.

Keynote Lecture: Integration of cine angiogram into magnetic maneuvering system for robotic mapping in patients with complex arrhythmias

Commentator: Live demonstration of catheter ablation of ventricular tachycardia

Chairman: Live demonstration of catheter ablation of atrial flutter

Symposium: 7th Atrial Fibrillation Symposium of, 03/13-14/2008, Paris, France

Lecture: What should be the approach to "man-made" arrhythmias after AFIB Ablation: Electroanatomical mapping based approach

Symposium: 13th Annual Symposium of Atrial Fibrillation: Mechanism and New Directions in Therapy, 01/17-19/2008, Boston, MA

Lecture: Prevention of Esophageal Injury after AF Ablation

Symposium: Western Atrial Fibrillation Symposium, Park City, Utah, 12/13-14/2007

Lecture: Ablation in AF: Targeting Ganglionated Plexi

Symposium: World Congress on Cardiac Pacing and Electrophysiology, Rome, Italy, 12/02-06/2007.

Chairman: The Essential Anatomy the Electrophysiologist Needs

Lecture: Use of Irrigation versus large electrodes to optimize efficacy and safety during RF ablation

Chairman and Lecture: Atrial Fibrillation: From Basic Science to Clinical Practice-Session VIII: The Post AF Ablation Patients: Incidence and management of AFL post AF ablation

Symposium: An International Symposium on Ventricular Arrhythmias: Pathophysiology and Therapy, Philadelphia, PA 10/26-27/2007

Lecture: Biophysics of Ablation in Infarcted Myocardium

Symposium: The 3rd Asia-Pacific Atria Fibrillation Symposium, Taipei, Taiwan, 10/18-20/2007.

Lecture: New Technology of AF Ablation (I): HIFU Balloon catheter ablation

Lecture: ThermoCool ablation of atrial fibrillation.

Lecture: Adjunctive Ablation Technique-When, How, and What? Denervation

Lecture: How to Find, Prevent, and Treat the Complications of AF Ablation

Chair: Case Review 1

Symposium: The Clinical Leadership Summit, Boston, MA, 9/15-16/2007

Lecture: Case Presentation with the Master

Symposium: The 55th Annual Scientific Meeting of the Japanese College of Cardiology. 9/09-12/2007, Maihama, Japan

Chairman and Lecture: New Devices for Diagnosis and Treatment of Arrhythmias.

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Symposium: EUROPACE 2007, Lisbon, Portugal, 6/24-27/2007

Lecture: Meet the Expert Session: High-Intensity Focused Ultrasound Balloon Catheter for Ablation in Patients with Atrial Fibrillation.

Symposium: The 22nd Annual Scientific Meeting of the Japanese Heart Rhythm Society. 6/1-2/2007, Hiroshima, Japan

Lecture: What is your strategy for AF ablation?

Lecture: "Unknown Tracings of EPS"

Lecture: High-Intensity Focused Ultrasound Balloon Catheter for Ablation in Patients with Atrial Fibrillation.

Lecture: Japan and US Medical Standard Gap

Chairman: Symposium: Nonpharmacological Therapy of Atrial Fibrillation: Catheter Ablation or Surgical Ablation.

Symposium: 28th Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA, 5/9-12/2007

Lecture: Core Curriculum: Strategies for ablation of chronic atrial fibrillation II: Neural modulation: Single or adjunctive approach.

Symposium: 28th Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA, 5/9-12/2007

Lecture: Core Curriculum: Emerging tools and technologies in catheter ablation: Large tip or open irrigation

Symposium: 4th Annual St. Jude Medical EP Fellows Conference, Boston, MA, 5/8/2007.

Lecture: Biophysics of RF ablation

Lecture: Catheter ablation of Complex Atrial Tachycardia and Atrial Flutter

Symposium: 5th Annual Symposium: Towards a New Era in Interventional Electrophysiology. Montreal, Quebec, Canada, 4/26-28/2007.

Lecture: Biophysics of Catheter Ablation and Remote Magnetic Navigation

Lecture: An Animal Model of Atrial-Esophageal Fistula

Symposium: 56th Annual Scientific Session of American College of Cardiology Symposium, New Orleans, LA, March 24-27, 2007

Chairman: Symposium: Atrial tachycardias and atrial flutter: Mechanism and therapies.

Symposium: The 71st Annual Scientific Meeting of the Japanese Circulation Society. 3/14-17/2007, Kobe, Japan.

Lecture: Ablation of ganglionated plexi with pulmonary vein antrum isolation in patients with paroxysmal and persistent atrial fibrillation

Lecture: Robotic catheter maneuvering system for mapping/ablation of left atrium and pulmonary veins.

Chairman and Commentator: Live demonstration of catheter ablation

Symposium: Boston AF Symposium: Evolving Approaches: The next generation of AF management: 01/11/2007, Boston, MA.

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Lecture: Signal processing for ganglionated plexi in AF ablation

Symposium: The 2nd Asia-Pacific Atria Fibrillation Symposium, Tokyo, Japan, 11/23-25/2006.

Lecture: Progress of GP ablation in AF treatment

Lecture: Initial experience using a forward directed, high-intensity focused ultrasound balloon catheter for pulmonary vein antrum isolation in patients with atrial fibrillation.

How to Session: How to detect and ablate the ligament of Marshall focus

Symposium: American Heart Association Scientific Sessions 2006, 11/12-15/2006, Chicago, Illinois.

Lecture: Clinical Practice 2006: Evolving Technologies in Electrophysiology Procedure: Curing Atrial Fibrillation with Autonomic Modulation.

Symposium: Catheter Ablation Seminar, Tokyo, Japan, 11/3-5/2006.

Lecture: Pitfall of Electroanatomical Mapping in Complex Arrhythmias

Symposium: Atrial Fibrillation: Contemporary Management and Therapeutic Approaches. Las Vegas, Nevada, 10/28-29/2006

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Symposium: 20 Years of Radiofrequency Ablation: What have we learned and where do we go from here? Mannheim, Germany, 10/20-21/2006

Lecture: How do we approach catheter ablation of AF in the future? "The ganglionic plexus approach"

Symposium: The Clinical Leadership Summit, Boston, MA, 10/6-7/2006

Lecture: Case Presentation with the Master

Symposium: 4th China Atrial Fibrillation Symposium, Dalian, China, 7/14-16/2006.

Lecture: "Progress of GP Ablation in AF Treatment"

Lecture: "Radiofrequency Catheter Ablation with Irrigated Electrode-Optimizing Safety and Efficacy"

Symposium: The Joint Conference of the 21st Annual Scientific Meeting of the Japanese Heart Rhythm Society and the 23rd Annual Meeting of the Japanese Society of Electrocardiology. 7/7-9/2006, Tokyo, Japan

Lecture: "Unknown Tracings"

Lecture: "Radiofrequency Catheter Ablation with Irrigated Electrode-Optimizing Safety and Efficacy"

Symposium: 15th World Congress in cardiac electrophysiology and Cardiac Techniques (Cardiostim), Nice, France, 6/14-17/2006

Lecture: 15th World Congress on Catheter Ablation: Ablation of complex atrial flutter circuits.

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Symposium: 27th Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA 5/17-20/2006

Lecture: Mini Course: RF Ablation with irrigated or large electrodes; optimizing safety and efficacy.

Symposium: 27th Annual Scientific Sessions of the Heart Rhythm Society, Boston, MA 5/017-20/2006

Lecture: Special session: Non-Ischemic VT/VF

Symposium: 3rd Annual St. Jude Medical EP Fellows Conference, Boston, MA, 5/16/2006.

Lecture: Biophysics of RF ablation

Lecture: Catheter ablation of Macroreentrant Atrial Tachycardia

Lecture: Catheter ablation of Ventricular Tachycardia in Patients with Prior Myocardial Infraction

Symposium: 36th Annual Meeting of Japanese Society for Cardiovascular Surgery, Morioka, Japan, 04/011-14/2006

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Lecture: High-intensity focused ultrasound balloon catheter for ablation of atrial fibrillation

Symposium: 14th Tachyarrhythmia, Kanazawa, Japan, 02/04/2006

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Symposium: The 1st Asia-Pacific Atrial Fibrillation Symposium, Seoul, Korea, 12/15-17/2005.

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Lecture: Comparison of Electrode Cooling Between Internal and Open Irrigation in Radiofrequency Ablation Lesion Depth and Incidence of Thrombus and Steam Pop.

Panel Discussion: How to prevent and Treat Complication of AF Ablation

Symposium: 22nd Brazilian Congress of Cardiac Arrhythmias, Fortaleza, Brazil, 12/01-03/2005.

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Lecture: Ventricular Ablation: Oklahoma Approach

Symposium: 3rd Annual Scientific Meeting of Oriental Catheter Therapeutics, Nanjing, China, 6/10-11/2005

Lecture: Clinical Application of Saline Irrigated Ablation Catheter

Symposium: 20th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Takarazuka, Japan, 5/29-31/2005

Lecture: The Developing Role of Catheter Ablation of Cardiac Autonomic Ganglia for Prevention of Atrial Fibrillation

Lecture: Japan and US Medical Standard Gap

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Symposium: 26th Annual Scientific Sessions of the Heart Rhythm Society, New Orleans, LA
5/04-07/2005

Lecture: Mini Course: Alternative Ablation Devices: Is Imaging Still Important?

Lecture: Clinical Tutorial: Ablation of SVT: Catheter Ablation of Macroreentrant Left Atrial
Tachycardia Following Catheter or Surgical Ablation of Atrial Fibrillation

Lecture: Clinical Tutorial: AF Ablation Technique Controversy Catheter Ablation: Localization
and Catheter Ablation of Cardiac Autonomic Ganglia in Patients with Atrial Fibrillation

Lecture: Localization and Catheter Ablation of Cardiac Autonomic Ganglia in Patients with
Atrial Fibrillation

Symposium: 10th Annual Boston AF Symposium: Boston, MA, 01/14-15/2005

Lecture: Localization and Catheter Ablation of Cardiac Autonomic Ganglia in Patients with
Atrial Fibrillation

Symposium: 21st Annual Meeting of Japanese Electrocardiography, Kyoto, Japan, 9/13-14/2004

Lecture: Saline Irrigated Radiofrequency Ablation electrode Using Internal and/or External Cooling

Symposium: 3rd Annual Symposium: Toward s a New Era in Interventional Electrophysiology,
Mont Tremblant, Quebec, Canada, 10/01-03/2004

Lecture: Non-Fluoroscopic Mapping: Dawn of the Second Era: Stereotaxis-The Robotics of
Electrophysiology

Lecture: AF is a Dysautonomia: Fact or Fiction: Clinical Counterpart: Catheter Ablation of Cardiac
Autonomic Nerves Prevents Initiation of Atrial Fibrillation

Symposium: 21st Annual Meeting of Japanese Electrocardiography, Kyoto, Japan, 9/13-14/2004

Lecture: Saline Irrigated Radiofrequency Ablation electrode Using Internal and/or External Cooling

Symposium: 4th Annual Meeting of Kanagawa Circulation Forum, Yokohama, Japan, 7/03/2004

Lecture: Catheter Ablation of Atrial Fibrillation

Symposium: 3rd Annual Meeting of Jonan Bench to Bedside Conference, Tokyo, Japan,
7/02/2004

Lecture: Catheter Ablation of Atrial Fibrillation

Symposium: 31st International Congress on Electrocardiography, Kyoto, Japan, 6/28-7/01/2004

Lecture: Catheter Ablation of Unmappable Ventricular Tachycardias Associated with Prior
Myocardial Infarction

Symposium: 3rd Annual Meeting of New Jersey Society for Pacing and Electrophysiology,
Livingston, NJ, 6/10/2004

Lecture: Catheter Ablation of Autonomic Ganglia in Patients with Atrial Fibrillation

Symposium: 19th Annual Scientific Meeting of Japanese Association of Pacing and
Electrophysiology, Niigata, Japan, 5/27-30/2004

Lecture: A Novel High-Intensity Focused Ultrasound (HIFU) Balloon Catheter for Pulmonary Vein
Antrum Isolation in Patients with Atrial Fibrillation

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Symposium: 25th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, San Francisco, CA, 5/19-22/2004

Lecture: Clinical Tutorials: Ablation of Difficult Flutters

Lecture: Core Curriculum: Optimal Approaches to Catheter Ablation of Atrial Fibrillation

Symposium: 68th Annual Scientific Meeting of Japanese Circulation Society, Tokyo, Japan 3/27-29/2004

Keynote Lecture: Identification and Ablation of Arrhythmogenic Channels within the Scar During Sinus Rhythm in Patients with Unmappable VT Associated Prior-MI

Lecture: Novel Magnetic Catheter Maneuvering System for Pulmonary Vein Isolation and Left Atrial Linear Lesions

Symposium: Atrial Fibrillation Therapy Symposium, Roma, Italy, 3/25-26/2004

Lecture: Potential Role of "Fat Pad" for AF Ablation

Lecture: Ablation Technologies: conventional "past", irrigated "present" and laser or HIFU "future"

Symposium: 18th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Kyoto, Japan, 5/25-27/2003

Lecture: Pulmonary vein isolation procedures in patients with paroxysmal and persistent atrial fibrillation

Lecture: New Technologies for Catheter ablation of Atrial Fibrillation

Lecture: Accessory AV pathways difficult to ablate

Lecture: Radiofrequency Catheter Ablation of Ventricular Tachycardia Associated with Organic Heart Disease: Ablation of Unmappable VT

Symposium: 24th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Washington, DC, 5/14-17/2003

Lecture: Clinical Tutorials: Anatomic basis of arrhythmias: Atrial Fibrillation, Atrial Flutter and AVNRT

Lecture: Core Curriculum: Atrial flutter and its Cousins: Mapping and Ablation Right and Left Atrial Non-Isthmus Dependent Flutter

Symposium: American College of Cardiology, Chicago, IL, 3/30/2003-4/2/2003

Lecture: Meet the Expert Session: Use of Advanced Cardiac Mapping Systems

Symposium: 5th Annual Meeting of Catheter Ablation in Iwate, Morioka, Japan, 8/23/2002

Lecture: Catheter Ablation of Unmappable Ventricular Tachycardia Associated with Prior Myocardial Infarction

Symposium: 17th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Toyama, Japan, 5/26-28/2002

Lecture: Radiofrequency Catheter Ablation of Macroreentrant Atrial Tachycardia Following Fontan Procedure: Ablation of Unmappable AT

Lecture: New Technologies for Catheter ablation of Atrial Fibrillation

Symposium: Turkish Arrhythmia Congress, Ankara, Turkey, 4/18-20/2002

Lecture: Pulmonary Vein Isolation in Patients with Paroxysmal/Persistent Atrial Fibrillation

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Symposium: American College of Cardiology: Atlanta, 3/17-20/2002

Lecture: Arrhythmia Management in Adult Congenital Heart Disease: Radiofrequency Catheter Ablation of Macroreentrant Atrial Tachycardia Following Fontan Procedure: Ablation of Unmappable AT

Symposium: Contemporary Issue on New Technology for Catheter Ablation, Milan, Italy, 12/2-4/2001

Lecture: Radiofrequency Catheter Ablation of Macroreentrant Left Atrial Tachycardia

Symposium: National Workshop on Clinical Cardiac Electrophysiology and Ablation, New Delhi, India 10/7-8/2001

Lecture: Radiofrequency Catheter Ablation of Ventricular Tachycardia Associated with Organic Heart Disease

Lecture: Radiofrequency Catheter Ablation of Atrial Fibrillation

Lecture: Catheter Ablation of Macroreentry Associated with Repaired Congenital Heart Disease

Symposium: 3rd Annual Scientific Meeting of Seoul Electrophysiology Society, Seoul, Korea, Japan, 5/25-26/2001

Lecture: Radiofrequency Catheter Ablation of Atrial Fibrillation

Lecture: Catheter Ablation of Macroreentry Associated with Repaired Congenital Heart Disease

Symposium: 16th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Tokyo, Japan, 5/21-5/23, 2001

Lecture: Radiofrequency Catheter Ablation of Ventricular Tachycardia Associated with Organic Heart Disease

Lecture: New Technologies for Catheter ablation of Atrial Fibrillation

Symposium: 22nd Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Boston, Massachusetts, 5/2-5/2001,

Lecture: Core Curriculum: Ablation of Atrial Macroreentry: Macroreentry Associated with Repaired Congenital Heart Disease

Symposium: 7th Annual Meeting of Kyushu Fusemyaku Kenkukai, Hakata, Japan, 12/15/2000

Lecture: Catheter Ablation of Atrial Flutter/Atrial Fibrillation

Symposium: 14th Annual Meeting of Coronary Artery Disease, Hiroshima, Japan, 12/14-15/2000

Lecture: Catheter Ablation of Ventricular Tachycardia Associated with Coronary Artery Disease

Lecture: Catheter Ablation of Atrial Flutter/Atrial Fibrillation

Symposium: Post Graduate Course: Electro Anatomy of the Heart, Norderstedt, Germany, 10/5-7/2000

Lecture: Ventricular Tachycardia: Ablation Strategies "Channel Elimination"

Lecture: Channel Identification to Guide Catheter Ablation of Atrial Tachycardia Following Fontan Procedure

Symposium: 1st Annual Meeting of Catheter Ablation in Maebashi, Gunma, Japan, 6/1/2000

Lecture: Catheter Ablation of Atrial Fibrillation

Symposium: 3rd Annual Meeting of Catheter Ablation in Iwate, Morioka, Japan, 5/31/2000

Lecture: Catheter Ablation of Complex Atrial Tachycardia

Symposium: 15th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Tokyo, Japan, 5/28-30/2000

Lecture: Basic Concept of Radiofrequency Catheter Ablation

Lecture: Catheter Ablation of Atrial Flutter and Fibrillation

Symposium: 21st Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Seattle, Washington, 5/17-20/2000

Lecture: Clinical Tutorials: Biophysics of RF Ablation: Impact of New Catheter Technology

Lecture: Core Curriculum: Biophysical considerations of radiofrequency ablation in children and patients with congenital heart disease: Effects of blood flow patterns common in pediatrics and congenital heart disease

Symposium: Recent advancement in the diagnosis and management of cardiac arrhythmia, Taipei, Taiwan, 2/20/2000

Lecture: Characterization of the reentrant circuit in macroreentrant right atrial tachycardia following surgical repair of congenital heart disease

Symposium: Asian Pacific Symposium on Cardiac Electrophysiology and Pacing, Hualien, Taiwan, 12/10-12/1999

Lecture: Catheter mapping and ablation of VT associated with ischemic heart disease

Lecture: Catheter ablation of Marshall tract from the coronary sinus

Symposium: 11th Annual Scientific Sessions of the Japanese Catheter Ablation Society, Tokyo, Japan, 10/23/1999

Lecture: Radiofrequency Catheter Ablation of Atrial Fibrillation

Symposium: 2nd Scholar's Meeting of CARTO & NOGA/DMR Sitges, Spain, 8/26-27/1999

Lecture: Role of the voltage map in selecting an ablation line across the subeustachian isthmus for ablation of typical atrial flutter

Symposium: 2nd Annual Seminar of Catheter Ablation Electrophysiology, Okayama, Japan, 5/28/1999

Lecture: Basic concept of radiofrequency ablation

Symposium: 14th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Okayama, Japan, 5/26-27/1999

Lecture: Case Conference

Symposium: 2nd Annual Meeting of Catheter Ablation in Iwate, Morioka, Japan, 4/23/1999

Lecture: Catheter Ablation of Atrial Fibrillation

Symposium: 24th Annual Conference of the International Society for Computerized Electrocardiology, Nara, Japan 4/20-22/1999

Lecture: Use of a 3-D, Non-fluoroscopic mapping system for catheter ablation of Macroreentrant Atrial Tachycardia

Symposium: 12th Annual Scientific Sessions of the Clinical Electrophysiology, Tokyo, Japan, 4/17/1999

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Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia Using a Noble 3-D Electroanatomical Mapping System

Symposium: 9th Annual Meeting of Catheter Ablation, Kantou, Tokyo, Japan, 9/18/1998

Lecture: Catheter Ablation of Atrial Flutter/Fibrillation Using a Noble 3-D Electroanatomical Mapping System

Symposium: 2nd Annual Meeting of the Arrhythmia in Kyoto, Shiga and Nara, Kyoto, Japan, 6/21/1998

Lecture: Catheter Ablation of Ventricular Tachycardia Associated with Coronary Artery Disease Using a Noble 3-D Electroanatomical Mapping System

Symposium: 18th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, San Diego, California, 5/6-9/1998

Lecture: Meet the Experts Luncheon Panel: Complications of Catheter Ablation Techniques: How to Avoid Them

Symposium: Catheter Ablation of Atrial Fibrillation Using the CARTO System: Techniques and Initial Clinical Results, Orlando, Florida, 11/9/97

Lecture: Atrial Potential Amplitude Attenuation as a Guide to Transmural Atrial Injury in Langendorff-Perfused Canine Hearts

Symposium: 12th Annual Scientific Meeting of Japanese Association of Pacing and Electrophysiology, Saitama, Japan, 6/4-6/1997

Lecture: Usefulness and Limitations of Entrainment Mapping for reentrant Tachycardias

Symposium: New Technology for Atrial Linear Lesions: Problems and Promise, New Orleans, Louisiana, 5/8/1997

Lecture: Differences in Continuity and Size of Linear RF Atrial Lesions Created in Sinus Rhythm vs. Atrial Fibrillation Using Multielectrode Catheter and Temperature Control: Implications for Use of a Cooled Electrode

Symposium: 18th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, New Orleans, Louisiana, 5/7-10/1997

Lecture: Clinical Tutorials: Catheter ablation of accessory pathways (A)

Symposium: 9th Annual Scientific Sessions of the Arrhythmia Conference, Nagoya, Japan, 4/3/1997

Lecture: New Non-contact Multielectrode Array Catheter Mathematically Reconstructs Left Bundle Branch Potentials

Symposium: 61st Annual Scientific Meeting of Japanese Circulation Society: The International Session "Circulation '97, Japan", Tokyo, Japan, 3/31/1997-4/2/1997

Lecture: Non-Pharmacological Therapy of Atrial Flutter

Lecture: "Analysis on substrate of reentrant ventricular tachycardia": New Non-Contact Multielectrode Array Catheter Mathematically Reconstructs Left Bundle Branch Potentials

Lecture: Radiofrequency Catheter Ablation of Accessory AV Pathways

Symposium: 9th Annual Scientific Sessions of the Clinical Electrophysiology, Tokyo, Japan, 1/18/1997

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Lecture: Current status of catheter ablation of atrial flutter/fibrillation

Symposium: International Symposium: Atrial Flutter and Fibrillation From Basics to Clinical Application, Heidelberg, Germany, 9/27-28/1996

Lecture: Mechanisms of atrial flutter: Clinical Findings

Symposium: 17th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Seattle, Washington, 5/15-18/1996

Lecture: Clinical Tutorials: Catheter Ablation: Biophysics, Basic Concepts, and Radiation Safety

Lecture: Meet the Experts Luncheon Panel: Catheter Ablation of Supraventricular Tachycardia-Using all of the Tools

Symposium: 45th Annual Scientific Session of the American College of Cardiology: Orlando, Florida, 3/24-27/1996,

Lecture: Fireside Panel "New Electrophysiologic Ablation Technique"

Symposium: 4th Annual Scientific Sessions of the New Horizon for Cardiology, Tokyo, Japan, 2/10/1996

Lecture: Current status and future trend of radiofrequency catheter ablation

Symposium: 16th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Boston, Massachusetts, 5/3-6/1995

Lecture: Clinical Tutorials: Catheter Ablation: Basic concepts (A)

Symposium: 21st International Congress on Electrocardiology, Yokohama, Japan, 7/4-7/1994

Lecture: Catheter ablation of idiopathic ventricular tachycardia: Catheter ablation of atrial flutter

Symposium: 15th Annual Scientific Sessions of the North American Society of Pacing and Electrophysiology, Nashville, Tennessee, 5/11-14/1994,

Lecture: Core Session: Catheter Ablation IV: Ventricular Tachycardia

Lecture: Radiofrequency Catheter Ablation of Idiopathic Left Ventricular Tachycardia

Symposium: 4th Annual Scientific Sessions of the Japanese Catheter Ablation Society, Tokyo, Japan, 10/31/1992

Lecture: Radiofrequency Catheter Ablation in Patients with Supraventricular Tachyarrhythmias

Symposium: International Symposium on Cardiac Arrhythmias, Hiroshima, Japan, 5/23-24/1992

Lecture: Idiopathic Monomorphic Right Ventricular Tachycardia: Mechanism and Results of Catheter Ablation

Symposium: 53rd Annual Scientific Session of the Japanese Circulation Society, Nagoya, Japan, 3/29-31/89

Lecture: Symposium on Diagnosis and Treatment of Life-threatening Arrhythmia

Lecture: Efficacy and Safety of Catheter Electrical Ablation for Ventricular Tachycardia: Experimental and Clinical Studies

Symposium: 5th Annual Scientific Sessions of the Japanese Electrocardiology Society, Tokyo, Japan, 10/2-3/88

Lecture: Monophasic Action Potential Mapping in Human Subjects with Normal Electrocardiogram

VIII. TEACHING ACTIVITIES

Electrophysiology Research Fellows:

Atsushi Ikeda: January 2007 – present
Tushar Sharma: July 2007 – July 2013
Katsuaki Yokoyama: January 2004 – May 2007
Hiroshi Aoyama: 2001-2004
Tetsuo Yagi: 2000-2002
Kagari Matsudaira: 1998-2000
Shinobu Imai: 1995-1998

Course Co-Director:

Advanced Course in Catheter Ablation of Cardiac Arrhythmias. Presented by Cardiac Arrhythmia Research Institute (CARI)

March 19-23, 2007

April 3-7, 2006
September 18-22, 2006

April 4-8, 2005
September 19-23, 2005
November 17-22, 2005 (for Japanese Physicians)

November 12-17, 2004 (for Japanese Physicians)
September 20-23, 2004
May 3-6, 2004

November 21-26, 2003 (for Japanese Physicians)
September 2-5, 2003
March 2-5, 2003

November 22-27, 2002 (for Japanese Physicians)
September 9-12, 2002
May 13-16, 2002
March 4-7, 2002

Course Faculty:

Advanced Course in Catheter Ablation of Cardiac Arrhythmias. Presented by Cardiac Arrhythmia Research Institute (CARI)

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November 16-22, 2001 (For Japanese Physicians)
September 6-11, 2001
March 1-6, 2001
February 8-13, 2001

November 2000 (For Japanese Physicians)
May 2000
April 2000

November 1999 (For Japanese Physicians)
September 1999
January 1999

November 1998 (For Japanese Physicians)
September 1998
January 1997

November 1996 (For Japanese Physicians)
September 5-10, 1996
July 18-23, 1996
April 11-16 1996
January 18-23, 1996

November 17-22, 1995 (For Japanese Physicians)
September 14-19, 1995

November 18-23, 1994 (For Japanese Physicians)
October 13-19, 1994
April 4-10, 1994

Visiting Professorships and Demonstration of Catheter Ablation:

Toyohashi Heart Center, Toyohashi, Japan (Dr. Kohei Yamashiro), July 21-23, 2013
Demonstration of Catheter Ablation of Atria Fibrillation and Macroreentrant Atrial Tachycardia and Catheter Ablation of Ventricular Tachycardia Associated with Prior Myocardial Infarction
Lecture: Catheter Ablation of Macroreentrant Right and Left Atrial Tachycardias
Lecture: Advantages of Contact Force Sensing Catheter for Mapping and Ablation: Evidence from Preclinical Data and Early Clinical Results

Funahashi City General Hospital, Chiba, Japan (Dr. Inagaki), July 19, 2013
Demonstration of Catheter Ablation of Ventricular Tachycardia in a patient with Non-Ischemic Cardiomyopathy

Singapore General Hospital, National Heart Center, Singapore (Dr. Wee Siong Teo), February 20-21, 2013
Demonstration of Catheter Ablation of Complex Atrial tachycardia and Ventricular Tachycardia using Stereotaxis system

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Bankok Heart Hospital, Bangkok, Thailand (Dr. Koonlawee Nademanee), February 18, 2013
Demonstration of Catheter Mapping/Ablation of Brugada Syndrome

Tsuchiya General Hospital, Hiroshima, Japan (Dr. Yuji Muraoka), December 26, 2012
Demonstration of Catheter Ablation of Ganglionated Plexi in Patients with Atrial Fibrillation

Hirosaki University school of Medicine, Hirosaki, Japan (Dr. Okumura), October 01, 2012
Demonstration of Catheter Ablation of Atrial Fibrillation Using Contact force Catheter

Hiroshima University school of Medicine, Hiroshima, Japan (Dr. Nakano), July 19-20, 2012
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Demonstration of Catheter Ablation of Atrial Fibrillation

Yamagata University school of Medicine, Hiroshima, Japan (Dr. Aoyama), July 3-4, 2012
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Demonstration of Catheter Ablation of Atrial Fibrillation

Hiroshima Prefectural Hospital, Hiroshima, Japan (Dr. Okamoto), December 28, 2009
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Jichi Medical School, Tochigi, Japan (Dr. Hata), December 25, 2009
Demonstration of Catheter Ablation of Epicardial Ventricular Tachycardia
Lecture: Catheter Ablation of Ventricular Tachycardia

Aijinkai-Chibune Hospital, Osaka, Japan (Dr. Ito), September 16, 2009
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Kanazawa Iryou Center Hospital, Kanazawa, Japan (Dr. Sakagami), September 15, 2009
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Toyohashi Heart Center, Toyohashi, Japan (Dr. Takahiko Suzuki), August 23-25, 2009
Demonstration of Catheter Ablation of Atrial Fibrillation and Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Lecture: Catheter Ablation of Macroreentrant Right and Left Atrial Tachycardias

Tokai University School of Medicine at Hchioji, Tokyo, Japan (Dr. Kobayashi), August 21, 2009
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Tsukuba University School of Medicine, Ibaragi, Japan (Dr. Aonuma), August 19, 2009
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

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Nagoya Higashi City Hospital, Nagoya, Japan (Dr. Murakami), July 5, 2009
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Saiseikai Izuo Hospital, Osaka, Japan (Dr. Matsui), March 18, 2009
Demonstration of Catheter Ablation of Atrial Fibrillation

Akita Seijinbyou Hospital, Akita, Japan (Dr. Abe), March 17, 2009
Lecture: Catheter Ablation of Atrial Fibrillation

Kokura Kinen Hospital, Akita, Japan (Dr. Goya), December 25, 2008
Lecture: Catheter Ablation of Atrial Fibrillation

Kanazawa Cardiology Hospital, Akita, Japan (Dr. Tsuchiya), December 22, 2008
Lecture: Catheter Ablation of Atrial Fibrillation

Juntendo University School of Medicine, Tokyo, Japan (Dr. Daida), September 12, 2008
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Tokyo Women Medical College, Tokyo, Japan (Dr. Morio Shoda), September 10-12, 2008
Demonstration of Catheter Ablation Using Magnetic catheter maneuvering system (Stereotaxis)

Toyohashi Heart Center, Toyohashi, Japan (Dr. Takahiko Suzuki), August 27-29, 2008
Demonstration of Catheter Ablation of Atria Fibrillation and Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Lecture: Catheter Ablation of Macroreentrant Right and Left Atrial Tachycardias

Nihonkai Hospital, Yamagata, Japan (Dr. Daida), August 25, 2008
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Singapore General Hospital, Singapore (Dr. Wee Teo), June 9-10, 2008
Demonstration of Catheter Ablation of Atria Fibrillation and Macroreentrant Atrial Tachycardia
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Saitama University School of Medicine, Saitama, Japan (Dr. Matsumoto), October 23, 2007
Lecture: Catheter Mapping and Ablation of Complex Arrhythmias Using Magnetic Robotic Catheter Maneuvering System

Yamada Red Cross Hospital, Ise, Japan (Dr. Sakai), October 22, 2007
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

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COLLEGE OF MEDICINE

Toyohashi Heart Center, Toyohashi, Japan (Dr. Takahiko Suzuki), August 28-31, 2007
Demonstration of Catheter Ablation of Atria Fibrillation and Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Lecture: Catheter Ablation of Macroreentrant Right and Left Atrial Tachycardias

Funahashi City Hospital, Chiba, Japan (Dr. Inagaki), June 8, 2007
Demonstration of Catheter Ablation of Atrial Fibrillation

Kumamoto University School of Medicine, Kumamoto, Japan (Dr. Hisao Ogawa), June 07, 2007
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Robotic Catheter Mapping/Ablation of Complex Arrhythmias

Tsukuba University School of Medicine, Tsukuba, Japan (Dr. Aonuma), March 12, 2007
Lecture: Evolving Approaches for Catheter Ablation of Atrial Fibrillation

Toyohashi Heart Center, Toyohashi, Japan (Dr. Takahiko Suzuki), August 22-25, 2006
Demonstration of Catheter Ablation of Atria Fibrillation and Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation
Lecture: Catheter Ablation of Macroreentrant Right and Left Atrial Tachycardias

Care Hospital, Hyderabad, India (Dr. Calambur Narasimhan), November 15-17, 2006
Demonstration of Catheter Ablation of Anteroseptal Accessory Pathway, Atrial Fibrillation, Atrial Tachycardia and Ventricular Tachycardia.
Lecture: Catheter Ablation of Anteroseptal Accessory Pathway
Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Ventricular Tachycardia Associated with Prior Myocardial Infarction

Funahashi City Hospital, Chiba, Japan (Dr. Inagaki), April 14, 2006
Demonstration of Catheter Ablation of Ventricular Tachycardia in a Patient with Dilated Cardiomyopathy.

Chiba Cardiovascular Center, Chiba, Japan (Dr. Tatenno), April 13, 2006
Demonstration of Catheter Ablation of Macroreentrant atrial tachycardia post Mustard operation.

Heart Lung Center Utrecht, Utrecht, The Netherlands (Dr. Fred HM Wittkamp), February 10, 2006
Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Sakurabashi Watanebe Hospital, Osaka, Japan (Dr. Kurotobi), February 3, 2006
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Kyoto University Graduate School of Medicine, Kyoto, Japan (Dr. Tsuyoshi Kimura), February 2, 2006

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Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Mie University School of Medicine, Tsu, Japan (Dr. Eitaro Fujii), December 13-14, 2005
Demonstration of Catheter Ablation of Atrial Fibrillation

Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Rio de Janeiro Hospital, Rio de Janeiro, Brazil (Dr. Eduardo Saad), November 28, 2005
Demonstration of Catheter Ablation of Atrial Fibrillation

Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Shanghai Medical University, Shanghai, China (Dr. Wang), June 8, 2005
Demonstration of Catheter Ablation of Idiopathic Left Ventricular Tachycardia
Lecture: Catheter Ablation of Atrial Fibrillation

Sapporo Medical University, Sapporo, Japan (Dr. Kikuya Uno), June 4, 2005
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), June 3, 2005
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Japan and US Medical Standard Gap

Ageo Chuou General Hospital, Saitama, Japan (Dr. Nishimura), June 2, 2005
Demonstration of Catheter Ablation of Atrial Tachycardia
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Toyohashi Heart Center, Toyohashi, Japan (Dr. Takahiko Suzuki), June 1, 2005
Demonstration of Catheter Ablation of Accessory Pathways and AVNRT
Lecture: Catheter Ablation of Cardiac Autonomic Ganglionated Plexi in Patients with Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), March 18, 2005
Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia
Lecture: Biophysics of RF Ablation

Shenyang Northern Hospital, Shenyang, China (Dr. Zulu Wang), January 7-8, 2005
Demonstration of Catheter Ablation of Atrial Fibrillation
Lecture: Catheter Ablation of Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), July 2, 2004
Demonstration of Catheter Ablation of Atrial Fibrillation

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), June 3-4, 2004

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Demonstration of Catheter Ablation of Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), June 2, 2004

Demonstration of Catheter Ablation of Macroreentrant Left Atrial Tachycardia Following Ablation of Atrial Fibrillation

Sapporo Medical University, Sapporo, Japan (Dr. Kikuya Uno), May 31-June 1, 2004

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia
Lecture: Catheter Ablation of Atrial Fibrillation

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), April 1-2, 2004

Demonstration of Catheter Ablation of Atrial Fibrillation
Demonstration of Catheter Ablation of Macroreentrant Left Atrial Tachycardia
Lecture: Catheter Ablation of Focal Atrial Fibrillation

Toyohashi Heart Center, Toyohashi, Japan (Dr. Suzuki), March 31, 2004

Demonstration of Catheter Ablation of Focal Atrial Fibrillation
Lecture: Catheter Ablation Using Computerized Magnetic Catheter Maneuvering System

Fukuoka University, Hakata, Japan (Dr. Koichiro Kumagai), March 30, 2004

Demonstration of Catheter Ablation of Focal Atrial Fibrillation
Lecture: Catheter Ablation Using Computerized Magnetic Catheter Maneuvering System

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), January 9, 2004

Demonstration of Catheter Ablation of Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), January 9, 2004

Demonstration of Catheter Ablation of Atrial Fibrillation

Owari General Hospital, Owari, Japan (Dr. Takumi Yamada), January 8, 2004

Demonstration of Catheter Ablation of Atrial Fibrillation

Himeji Brain Heart Center, Himeji, Japan (Dr. Kohei Yamashiro), January 7, 2004

Lecture and Live Demonstration of Catheter Ablation of Atrial Fibrillation

Co-Director, Post Graduate Course: Electro Anatomy of the Heart, Morioka, Japan, 8/27-29/2003

Lecture and Live Demonstration: Catheter Ablation of Paroxysmal Atrial Fibrillation

Lecture and Live Demonstration: Catheter Ablation of Macroreentrant Atrial Tachycardia

Nihon University, Tokyo, Japan (Dr. Shinobu Imai), June 4, 2003

Lecture: Catheter Ablation of Ventricular Tachycardia

Co-Director, Post Graduate Course: Electro Anatomy of the Heart, Morioka, Japan, 8/21-23/2002

Lecture and Live Demonstration: Catheter Ablation of Paroxysmal Atrial Fibrillation

Lecture and Live Demonstration: Catheter Ablation of Macroreentrant Atrial Tachycardia

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), May 30-31, 2002

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Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Focal Atrial Fibrillation
Lecture: Catheter Ablation of Focal Atrial Fibrillation

Chula Hospital, Bangkok, Thailand (Dr. Suraphan), March 1, 2002
Demonstration of Catheter Ablation of Accessory AV Pathway
Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia

Chiangmai Hospital, Chiangmai, Thailand (Dr. Thanawat), February 29, 2002
Demonstration of Catheter Ablation of Accessory AV Pathway
Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia

Siriraj Hospital, Bangkok, Thailand (Dr. Charn), February 27, 2002
Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Singapore General Hospital, National Heart Center, Singapore (Dr. Wee Siong Teo), February 25, 2002
Lecture: Catheter Ablation of Paroxysmal Atrial Fibrillation
Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Kameda General Hospital, Kamogawa, Japan (Dr. Makoto Suguki), February 22, 2002
Demonstration of Catheter Ablation of Epicardial Accessory AV Pathway

Kameda General Hospital, Kamogawa, Japan (Dr. Makoto Suguki), February 22, 2002
Demonstration of Catheter Ablation of Atrial Flutter

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), February 21, 2002
Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Focal Atrial Fibrillation
Lecture: Catheter Ablation of Focal Atrial Fibrillation

Sendai City Hospital, Sendai, Japan (Dr. Odakura), February 20, 2002
Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia Following Repair of Tetralogy of Fallot
Lecture: Radiofrequency catheter ablation of macroreentrant atrial tachycardia

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), February 19, 2002
Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Focal Atrial Fibrillation
Lecture: Catheter Ablation of Focal Atrial Fibrillation

Batra Hospital & Medical Research Center, New Dehli, India (Dr. Balbir Singh), October 8-9, 2001
Demonstration of Catheter Ablation of Ventricular Tachycardia
Demonstration of Catheter Ablation of Left Atrial Tachycardia

AIIMS, New Dehli, India (Dr. Talwar), October 7, 2001
Demonstration of Catheter Ablation of Idiopathic Left Ventricular Tachycardia

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COLLEGE OF MEDICINE

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia Following Repair of Tetralogy of Fallot

Lecture: Radiofrequency catheter ablation of ventricular tachycardia associated with coronary artery disease

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), October 2-4, 2001

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia

Demonstration of Catheter Ablation of Focal Atrial Fibrillation

AIIMS, New Dehli, India (Dr. Talwar), October 1, 2001

Demonstration of Catheter Ablation of Idiopathic Left Ventricular Tachycardia

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia Following Repair of Tetralogy of Fallot

Lecture: Radiofrequency catheter ablation of ventricular tachycardia associated with coronary artery disease

Yamaguchi University School of Medicine, Ube, Japan (Dr. Akihko Shimizu), May 31, 2001

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia

Demonstration of Catheter Ablation of Ventricular Tachycardia

Iwate Medical University, Morioka, Japan (Dr. Kouhei Kawazoe), May 23-24, 2001

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia and Atrial Flutter

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia and Atrial Flutter

National Heart Center, Singapore (Dr. Wee Siong Teo), January 19, 2001

Lecture: Catheter Ablation of Paroxysmal Atrial Fibrillation

Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Royal Melbourne Hospital, Melbourne, Victoria, Australia (Prof. Jonathan M. Kalman), January 15-16, 2001

Lecture: Catheter Ablation of Paroxysmal Atrial Fibrillation

Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Chang Gung Medical College and Hospital, Taipei, Taiwan (Prof. Delon Wu), October 17-19, 2000

Lecture: Catheter Ablation of Ventricular Tachycardia

Demonstration of Catheter Ablation of Ventricular Tachycardia and Macroreentrant Atrial Tachycardia

National Taipei University Hospital, Taipei, Taiwan (Prof. Shoen K Stephen Huang) October 16, 2000

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia

Iwate Medical University, Morioka, Japan (Dr. Katsuhiko Hiramori), May 31 – June 1, 2000

Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia

Sino-China-Japan Friendship Hospital, Beijing, China (Prof. Ma), February 18, 2000

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia

Demonstration of Catheter Ablation of Atrial Flutter

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Chao Yang Hospital, Beijing, China, February 17, 2000

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Atrial Flutter

Fuwai Hospital, Beijing, China, February 16, 2000

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Atrial Flutter

Royal Melbourne Hospital, Melbourne, Victoria, Australia (Prof. Jonathan M. Kalman), February 14, 2000

Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia
Demonstration of Catheter Ablation of Atrial Flutter

ChangGung Medical College and Hospital, Taipei, Taiwan (Prof. Delon Wu), December 14, 1999
Demonstration of Catheter Ablation of Atrial Flutter

Saitama University School of Medicine, Saitama, Japan (Dr. Kazuo Matsumoto), October 21, 1999
Demonstration of Catheter Ablation of Focal Atrial Fibrillation

Iwate Medical University, Morioka, Japan (Dr. Katsuhiko Hiramori), October 18-19, 1999
Demonstration of Catheter Ablation of Macroreentrant Atrial Tachycardia

Singapore General Hospital, Singapore (Dr. Teo), August 5, 1999
Demonstration of Catheter Ablation of Atrial Flutter

Nippon Medical School, Tokyo, Japan (Professor & President Hirokazu Hayakawa, MD), April 19, 1999

Lecture in the Medical Association of Nippon Medical School: Catheter Ablation of Atrial Fibrillation
Demonstration of Catheter Ablation of Atrial Flutter

Iwate Medical University, Morioka, Japan (Dr. Katsuhiko Hiramori), September 24, 1998
Demonstration of Catheter Ablation of Ventricular Tachycardia

Gunma Cardiovascular Center, Maebashi, Japan (Dr. Akihiko Nogami), September 22, 1998
Demonstration of Catheter Ablation of AVNRT and Discuss Recent Advances of Catheter Ablation of Ventricular Tachycardia

Tsuchiura General Hospital, Tsukuba, Japan (Dr. Yoshito Iesaka), September 18, 1998
Demonstration of Catheter Ablation of Accessory AV Pathway and Atrial Flutter

Saitama University School of Medicine, Saitama, Japan (Dr. Kazuo Matsumoto), June 24, 1998
Demonstration of Catheter Ablation of Ventricular Tachycardia

Keio University School of Medicine, Tokyo, Japan (Dr. Hideo Mitamura), June 23, 1998
Demonstration of Catheter Ablation of Accessory AV Pathway

Iwate Medical University, Morioka, Japan (Professors Hiramori & Kawazoe), June 17-19, 1998

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Discuss Recent Advances of Catheter Ablation of Atrial Flutter/Fibrillation
Demonstration of Catheter Ablation of Ventricular Tachycardia and AV Nodal Reentrant
tachycardia

Nippon Medical School, Tokyo Japan (Professor & President Hirokazu Hayakawa, MD), June 15,
1998

Lecture in the Medical Association of Nippon Medical School: Catheter Ablation of Ventricular
Tachycardia Associated with Coronary Artery Disease Using a Noble 3-D Electro-anatomical
Mapping System
Demonstration of Catheter Ablation of Atrial Flutter

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), June 12-13, 1997
Discuss Recent Advances of Catheter Ablation of Atrial Flutter/Fibrillation
Demonstration of Catheter Ablation of Atrial Flutter

Fukui General Hospital, Fukui, Japan (Dr. Toshihiro Misawa), June 9, 1997
Demonstration of Catheter Ablation of Accessory AV Pathways

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), June 4, 1997
Demonstration of Catheter Ablation of Atrial Flutter

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), June 3, 1997
Discuss Recent Advances of New Mapping Systems
Demonstration of Catheter Ablation of Accessory AV Pathways

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), January 22, 1997
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Catheter Ablation

Keio University School of Medicine, Tokyo, Japan (Dr. Hideo Mitamura), January 21, 1997
Demonstration of Catheter Ablation of Accessory AV Pathway

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), January 20, 1997
Discuss Recent Advances of New Mapping Systems
Demonstration of Catheter Ablation of Atrial Flutter

Sendai City Hospital, Sendai, Japan (Dr. Tetsuo Yagi), January 16, 1997
Demonstration of Catheter Ablation of Atrial Flutter
Discuss Recent Advances of Catheter Ablation of Atrial Flutter/Fibrillation

University Hospital Utrecht, Utrecht, The Netherlands (Dr. Fred HM Wittkampf), October 3, 1996
Demonstration of Catheter Ablation of Atrial Flutter
Discuss Recent Advances of Catheter Ablation of Atrial Flutter

Tottori University School of Medicine, Yonago, Japan (Dr. Osamu Igawa), June 27, 1996
Demonstration of Catheter Ablation of Accessory AV Pathway and Ventricular Tachycardia

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Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), June 21, 1996
Demonstration of Catheter Ablation of Ventricular Tachycardia

Tottori University School of Medicine, Yonago, Japan (Dr. Osamu Igawa), February 8, 1996
Demonstration of Catheter Ablation of Accessory AV Pathway

Saitama University School of Medicine, Saitama, Japan (Dr. Hiroshi Matsuo), February 7, 1996
Demonstration of Catheter Ablation of Atrial Flutter
Discuss Recent Advances of Catheter Ablation of Atrial Flutter

Sendai City Hospital, Sendai, Japan (Dr. Tetsuo Yagi), February 5, 1996
Demonstration of Catheter Ablation of Atrial Flutter
Discuss Recent Advances of Catheter Ablation of Atrial Flutter

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), May 15, 1995
Demonstration of Catheter Ablation of Atrial Flutter
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Saitama University School of Medicine, Saitama, Japan (Dr. Kazuo Matsumoto), May 14, 1995
Demonstration of Catheter Ablation of Ventricular Tachycardia
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation
Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), May 12, 1995
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

The Heart Institute of Japan, Tokyo Women's Medical College, Tokyo, Japan (Dr. Hiroshi Kasanuki), February 15, 1994
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), February 12, 1994
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), February 8, 1994
Demonstration of Catheter Ablation of Slow AV Nodal Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), July 12, 1994
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), July 14, 1994
Demonstration of Catheter Ablation of Accessory AV Pathway
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Goro Kajiyama), May 25, 1992
Demonstration of Catheter Ablation of Accessory AV pathways

The Heart Institute of Japan, Tokyo Women's Medical College, Tokyo, Japan (Dr. Hiroshi Kasanuki), November 4, 1992
Demonstration of Catheter Ablation of Accessory AV Pathway

IX. PROFESSIONAL SERVICE

Service to professional societies

Japanese Society of Cardiac Pacing and Electrophysiology (JASPE):
Board of Trustees 0/01/2004

Editorial services – Manuscript Reviewer

Journal of American College of Cardiology
Circulation

Journal of Cardiovascular Electrophysiology
PACE

Cardiovascular Research
European Heart Journal

Journal of Interventional Cardiovascular Electrophysiology
Heart Rhythm

Journal of Arrhythmia
Journal of Atrial Fibrillation

Invited and special lectures of clinical and service relevance

Kumamoto Arrhythmia Conference, Hiroshima, Japan (Dr. Masao Yoshizumi), June 06, 2007
Lecture: Robotic Catheter Mapping/Ablation of Complex Arrhythmias

Kumamoto Arrhythmia Conference, Kumamoto, Japan (Dr. Hisao Ogawa), August 31, 2003
Lecture: Catheter Ablation of Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), August 25, 2003
Lecture: Catheter Ablation of Ventricular Tachycardia

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), June 6, 2002
Lecture: Catheter Ablation of Macroreentrant Atrial Tachycardia

Nihon University, Tokyo, Japan (Dr. Shinobu Imai), June 5, 2002
Lecture: New Catheter Mapping Systems

Kumamoto Arrhythmia Conference, Kumamoto, Japan (Dr. Hisao Ogawa), June 1, 2002
Lecture: Catheter Ablation of Complex Atrial Tachycardia

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University of Pavia, Pavia, Italy (Dr. Emilio Vanoli), December 5, 2001
Lecture: Radiofrequency catheter ablation of ventricular tachycardia associated with coronary artery disease

University of Utrecht, Utrecht, The Netherlands (Dr. Fred Wittkampf), November 29, 2001
Lecture: Radiofrequency catheter ablation of macroreentrant atrial tachycardia

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Taijiro Sueda), June 1, 2001
Lecture: Catheter Ablation of Paroxysmal Atrial Fibrillation

Westmead University Hospital, Westmead, Sydney, Australia (Prof. David Ross), January 17, 2001
Lecture: Radiofrequency catheter ablation of paroxysmal atrial fibrillation
Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Taijiro Sueda), June 6, 2000
Discuss Recent Advances of Catheter Ablation of Complex Atrial Tachycardia

Westmead University Hospital, Westmead, Sydney, Australia (Prof. David Ross), February 15, 2000
Lecture: Radiofrequency catheter ablation using a saline irrigated electrode

National Yang-Ming University, Veteran General Hospital, Taipei, Taiwan (Prof. Shih-Ann Chen), December 13, 1999
Lecture: Basic Concept of Radiofrequency Catheter Ablation

Sapporo Medical School, Sapporo, Japan (Dr. Kikuya Uno), October 22, 1999
Discuss Recent Advances of Catheter Ablation of Atrial Fibrillation

Brigham and Women's Hospital, Boston, MA (Dr. William G. Stevenson), July 15-16, 1999
Lecture: Basic Concept of Radiofrequency Catheter Ablation

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Taijiro Sueda), May 28, 1999
Discuss Recent Advances of Catheter Ablation of Atrial Fibrillation

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Taijiro Sueda), June 25, 1998
Discuss Recent Advances of Catheter Ablation of Ventricular Tachycardia

Aichi Medical University, Aichi, Japan (Dr. Tohru Iwa), June 29, 1996
Discuss Recent Advances of Catheter Ablation of Atrial Flutter and Atrial Fibrillation

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), June 28, 1996
Discuss Recent Advances of Catheter Ablation Using an Irrigated Tip Electrode

The Heart Institute of Japan, Tokyo Women's Medical College, Tokyo, Japan (Dr. Hiroshi Kasanuki), June 26, 1996
Discuss Recent Advances of Catheter Ablation Using an Irrigated Tip Electrode

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), June 25, 1996

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Discuss Recent Advances of Catheter Ablation Using an Irrigated Tip Electrode

Nihon University, Tokyo, Japan (Dr. Ichiro Watanabe), February 8, 1996
Discuss Recent Advances of Catheter Ablation of Atrial Tachyarrhythmias

Hiroshima University School of Medicine, Hiroshima, Japan (Dr. Taigiro Sueda), February 6, 1996
Discuss Recent Advances of Catheter Ablation of Atrial Flutter

Nihon University, Tokyo, Japan (Dr. Hiroshi Yagi), February 2, 1996
Discuss Recent Advances of Catheter Ablation of Atrial Flutter

Keio University School of Medicine, Tokyo, Japan (Dr. Satoshi Ogawa), May 11, 1995
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

Tottori University School of Medicine, Yonago, Japan (Dr. Osamu Igawa), January 21, 1991
Discuss Recent Advances of Clinical Electrophysiology and Catheter Ablation

X. MEMBERSHIPS, HONORS, AWARDS and SPECIAL RECOGNITION

Scholarly, Professional and Scientific Memberships

American Heart Association

- Circulation
- Clinical Cardiology

Heart Rhythm Society

Japanese Circulation Society

Japanese College of Cardiology

Japanese Heart Rhythm Society

Japanese Electrophysiology Society

Japanese Society of Interventional Cardiology

Japanese Society of Internal Medicine

Japanese Society of Medical Ultrasonics

Board Trustee Member of Japanese Heart Rhythm Society

Editorial Board of Journal of Atrial Fibrillation

International Advisor Board of Japanese Robotic Surgery

Awards, Honors, Special Recognition

Medtronic Japan Fellowship Award for Young Japanese Investigator 05/10/1990

NASPE (North American Society of Pacing and Electrophysiology)
Young Investigator Award 05/08/1993

American Heart Association, Samuel A. Levine Young Clinical Investigator 11/16/1994

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Awards Finalist

Sponsor for Hiroshi Aoyama, MD, PhD 05/15/2003
NASPE (North American Society of Pacing and Electrophysiology
Young Investigator Award

Provost's Research Award for Senior Faculty 04/23/2007
The University of Oklahoma Health Sciences Center

University of Oklahoma Health Sciences Center 2011 Faculty Awards 04/11/2011
for Patent# 7,815,635 "Catheter and Method, in Particular for Ablation and Like Techniques"

University of Oklahoma Health Sciences Center 2011 Faculty Awards 04/23/2012
for Patent# 7,998,141 "Irrigated Catheter and Method, in Particular for Ablation and Like
Techniques"