

Certificate Course in Cardiac Rhythm Management for Clinicians & Allied Professionals

Course Objectives:

1. Comprehensive teaching of basic concepts essential to electrophysiology and cardiac rhythm device management
2. Clinical practice topics that applied the basic concepts to everyday practice and patient management
3. The program will help clinicians prepare for examinations in electrophysiology and device management

Course Chairs:

Christine Chiu-Man (Canada)

Yoshinori Kobayashi (Japan)

Kathy LF Lee (Hong Kong)

Thursday, 3 October 2013				
Time	Venue	Session	Speaker	Country
08:30 - 10:10	Room S221	[012] Introduction to Cellular Electrophysiology <i>Chairpersons: Kathy Lee (Hong Kong), Christine Chiu-Man (Canada)</i> 1. Effects of Ion Channels on Electrocardiographic Findings 2. Arrhythmogenesis: Reentry, Automaticity and Triggered Activity 3. Workshop: Early Repolarization - Is It Good or Bad?	Gil Gross Peng-Sheng Chen Mohit Singla	Canada USA India
10:40 - 12:20	Room S221	[025] EP Studies: Anatomy, EGM Interpretation, Stimulation Protocols <i>Chairperson: Craig Swygman (USA)</i> 1. Cardiac Anatomy and Fluoroscopic Imaging in EP 2. Fundamentals of EGM Interpretation and Rhythm Analysis 3. Basic Stimulation Protocols and Electrophysiologic Evaluation 4. Principles of Entrainment	Craig Swygman Chang-Hee Lee Ricardo Bernardo Hans Henrik Odland	USA Korea Portugal Norway
13:50 - 15:30	Room S221	[041] Basics of Cardiac Pacing <i>Chairpersons: Dulce Obias-Manno (USA), Wai-Sum Luk (Hong Kong)</i> 1. Electrical Concepts in Pacing: Ohms Law, Threshold, Sensing, Polarity 2. Basics of Pacemaker Timing Cycles: From VVI to DDDR 3. Hemodynamics of Cardiac Pacing	Susan Song Christine Chiu-Man Carsten Israel	USA Canada Germany
16:00 - 17:40	Room S221	[054] Basics of Cardiac Defibrillation & Resynchronization <i>Chairpersons: Susan Song (USA), Wai-Sum Luk (Hong Kong)</i> 1. Myocardial Remodeling and Cardiac Resynchronization Therapy 2. Principles of ICD Sensing and Detection of VF / VT 3. Defibrillation Concepts and Determinants of Shock Success 4. CRT Optimization Strategies	Carsten Israel Ji-Hae Yun Saeed Hosseini Marleen Irwin	Germany Korea Canada Canada

Friday, 4 October 2013				
Time	Venue	Session	Speaker	Country
08:30 - 10:10	Room S221	[069] ECG Interpretation <i>Chairpersons: Ji-Hae Yun (Korea), June Huh (Korea)</i> 1. Systematic Approach to Arrhythmia Recognition 2. ECG Features in ARVC, Long QT, J wave and Brugada Syndromes 3. Systematic Approach to Pacemaker /CRT ECG Troubleshooting	Stephen S.K. Huang Tohru Ohe Michael Wan	USA Japan Australia
10:40 - 12:20	Room S221	[083] Basic Course Quiz <i>Chairpersons: Kathy Lee (Hong Kong), Yoshinori Kobayashi (Japan), Christine Chiu-Man (Canada)</i> <i>This will serve as review of topics covered in the Basic Course day.</i>		
13:50 - 15:30	Room S221	[100] SVT Tutorial <i>Chairperson: Christine Chiu-Man (Canada)</i> 1. AV Nodal and Pathway Mediated SVT: Substrate, Mechanism and Diagnostic Criteria 2. Pacing Techniques in SVT Differentiation in the EP Lab 3. Workshop: Troubleshooting Difficult Cases of SVT	Chun-Ja Yoo Kyoko Soejima Kyoko Soejima	Korea Japan Japan
16:00 - 17:40	Room S221	[113] VT Tutorial <i>Chairpersons: Chang-Hee Lee (Korea), Khalid Daigriri (Saudi Arabia)*</i> 1. VT: ECG-Anatomic Correlation 2. VT in Structural Heart Disease: Substrate and Catheter Ablation 3. Cases Workshop: Difficult VT	Ahmed Al-Fagih Yoshinori Kobayashi Amitabh Yaduvshi	Saudi Arabia Japan India

Certificate Course in Cardiac Rhythm Management for Clinicians & Allied Professionals

Saturday, 5 October 2013				
Time	Venue	Session	Speaker	Country
08:30 – 10:10	Room S221	[128] Cardiac Imaging and Catheter Ablation in EP <i>Chairpersons: Joel Archbald (Australia)*, Philip Chang (USA)</i> 1. Essentials of CT, Cardiac MRI, 3D-RA and ICE Techniques in EP 2. 3D Mapping: Principles, Tips and Tricks 3. Biophysics of Ablation Lesions 4. Emerging Technologies in AF Ablation	Akiko Ueda Luc Soucie Seller Neil Werner Jung*	Japan Canada Saudi Arabia Germany
10:40 – 12:20	Room S221	[142] Advanced Cardiac Resynchronization Therapy <i>Chairpersons: JungWae Park (Korea), Neil Seller (Saudi Arabia)*</i> 1. CRT Implantation Techniques: Tips and Tricks to Improve Successful Implant 2. CRT Follow-Up Complications and Management 3. Workshop: Case-Based Approach to CRT Troubleshooting	Kheng-Siang Ng Elizabeth Stephenson Luigi Padeletti	Singapore Canada Italy
13:50 – 15:30	Room S221	[159] Advanced ICD <i>Chairpersons: Chun-Ja Yoo (Korea), Marta Felix Valente (Portugal)*</i> 1. VT/VF: Advances in Programming ICDs to Reduce Shocks 2. ICD Lead Technology in Lead Advisories/Recalls 3. Subcutaneous ICD (S-ICD): Exploring Benefits and Limitations 4. Workshop: Case-Based Approach to ICD Troubleshooting	Jason Wildschut* David Hayes Michael Gold Dulce Obias-Manno	Canada USA USA USA
16:00 – 17:40	Room S221	[173] Advanced Pacemaker Programming <i>Chairperson: Marleen Irwin (Canada)</i> 1. Special Features to Reduce Ventricular Pacing: Pitfalls and Pearls 2. Advanced Programming Features: One Size Fits All? 3. Workshop: Case Studies of Complex Pacemaker Troubleshooting	Ta-Chuan Tuan Chun-Ja Yoo Byron Lee	Taiwan Korea USA

Sunday, 6 October 2013				
Time	Venue	Session	Speaker	Country
08:30 – 10:10	Room S226-S227	[181] Preventing Complications in EP and Device Therapy <i>Chairpersons: Hyun-Soo Lee (Korea), Ricardo Bernardo (Portugal)*</i> 1. Recognition and Prevention of Complications in Ablation 2. Device Infection Prevention: Risk Factors, Outcomes, Management Options 3. Anticoagulation Pre and Post AF Ablation	Shih-Lin Chang Charles Love Sakis Themistoclakis*	Taiwan USA Italy
10:40 – 12:20	Room S226-S227	[187] Atrial Fibrillation <i>Chairpersons: Marta Felix Valente (Portugal)*, Yi-Lan Kou (Taiwan)*</i> 1. 3D Mapping for AF Ablation 2. Application in AF Ablation: Contact Force, Contact Sense 3. Atrial Tachycardias During AF Ablation	Claudio Tondo Atul Verma Hyun-Soo Lee	Italy Canada Korea
13:30 - 17:00 one hour per session	Room S223/ S224/ S228	<i>For CRM Course registrants only (Registrants need to indicate their attendance in advance)</i> [189-191, 195-197, 199-201] Basics of 3D Mapping Systems Practice Workshop Workstations of 3D mapping systems to permit hands on step by step guided practice. Facilitator is to review: 1. Principles of operation 2. Patient setup 3. System navigation and procedure of creating geometry & activation / propagation map 4. Review basics of 3D map interpretation. 5. Systematic approach to troubleshoot problems Clinicians help to address clinical relevance and share clinical experience e.g. with troubleshooting. Basics of Device Programming Practice Workshop Each major manufacturer to provide programmer stations to permit hands on step by step guided practice and address audience questions. Facilitator is to review: 1. Basics of programmer interface, navigation. 2. Review systematic approach to device follow up: interrogation, retrieval of diagnostic data, basics of interpretation, marker annotations. 3. Review methods to perform stimulation and sensing thresholds testing. 4. Review arrhythmia recognition and diagnosis during follow up assessment, eg. PMT. 5. Systematic approach to troubleshoot problems. Clinicians help to address clinical relevance and share clinical experience e.g. with troubleshooting.		