

**Wednesday, May. 8, 2019**

**S-SP02. Opening Plenary: Celebrating Our Past, Forging Pathways for Our Future**

Room 24 **8:00 AM - 9:00 AM**

**S-BS01. Omics, Informatics and Population Science: Big Data Analysis to Study Heart Rhythm - Session 1**

Room 22 **10:00 AM - 11:10 AM**

**10:40 AM - 11:05 AM**

[Electronic Medical Records, Phenotype Risk Scores and the Genetic Causes of Common Rhythm Disorders](#)

Dan M. Roden, MD, FHRS. Vanderbilt Univ School of Medicine, Nashville, TN

**S-MC04. All About Primary Electrical Disease**

Room 152 **10:00 AM - 12:00 PM**

Chair

Arthur A. M.. Wilde, MD, PhD. Univ of Amsterdam - Academic Medical Center, Amsterdam, Netherlands

**10:40 AM - 10:55 AM**

[J Wave Syndromes: Have We Closed the Gaps in Knowledge?](#)

Charles Antzelevitch, PhD, FHRS. Lankenau Institute for Medical Research, Wynnewood, PA

**11:00 AM - 11:55 AM**

[Estimating and Managing Risk in LQTS and CPVT](#)

Silvia G. Priori, MD, PhD. University of Pavia & ICS Maugeri, Pavia, Italy

**11:40 AM - 11:55 AM**

[Utility of Postmortem Next Generation Sequencing in Sudden Arrhythmic Death Syndrome](#)

Elijah Behr, MA, MBBS, MD. St George s University of London, London, United Kingdom

**S-MC06. Little Patients Can Be Big Challenges**

Room 203 **10:00 AM - 12:00 PM**

**10:15 AM- 10:25 AM**

[Why the Electrophysiologist Should Care About SIDS and Seizures](#)

Martin Tristani-Firouzi, MD. University of Utah, Pediatric Cardiology, Salt Lake City, UT

**11:30 AM - 11:40 AM**

[How to Manage the Difficult Neonate. When Doing Nothing is the Best Approach](#)

James C.. Perry, MD, FHRS, CEPS-P. UCSD/Rady Children's Hospital, Pediatric Cardiology, San Diego, CA

Room 22 **S-BS02. Omics, Informatics and Population Science: Big Data Analysis to Study Heart Rhythm - Session 2**

**11:10 AM - 12:00 PM**

**11:10 AM - 11:35 AM**

[Omics, Arrhythmias and the Metabolism of the Heart](#)

Brian O'Rourke, PhD. Johns Hopkins Univerity, Department of Medicine, Baltimore, MD

**11:35 AM - 12:00 PM**

[A Proteomics Approach to the Study of Ion Channel Complexes](#)

Alicia Lundby, PhD. University of Copenhagen, Copenhagen, Denmark

|          |   |  |
|----------|---|--|
| Room 152 | <b><u><a href="#">S-MC10. Gender, Age and Arrhythmias: Better Be Young and Female?</a></u></b>                    |  |
|          | <b>1:00 PM - 3:00 PM</b>  |  |
|          | <b>1:00 PM - 1:20 PM</b>  | <u><a href="#">Eric N. Prystowsky Lectureship Award: Sex Differences in Electrophysiology and Epidemiology of Atrial Fibrillation and Ventricular Arrhythmias</a></u><br>Anne M.. Gillis, MD, FHRS. Univ of Calgary - Dept of Cardiac Sciences, Calgary, AB, Canada  |
|          | <b>2:00 PM - 2:10 PM</b>  | <u><a href="#">Sudden Death During Sports Activity: Only in Young Men?</a></u><br>Paul Dorian, MD, FHRS. Univ of Toronto - St. Michael's Hospital, Toronto, ON, Canada   |
|          | <b>2:30 PM - 2:40 PM</b>  | <u><a href="#">Impact of Age and Gender in Inherited Arrhythmias</a></u><br>Elizabeth S.. Kaufman, MD, FHRS. MetroHealth Medical Center, Di, Cleveland, OH   |
| Room 203 | <b><u><a href="#">S-MC12. Complex VT Ablations in Children: New Age Help for the Impossible Substrate</a></u></b> |  |
|          | <b>1:00 PM - 3:00 PM</b>  |  |
|          | Chairs  | Georgia Sarquella-Brugada, MD, PhD. Hospital Sant Joan de Déu, Barcelona, Spain<br>Thomas Paul, MD, FHRS. Georg-August-Univ Medical Univ Hospital, Pediatric Cardiology, Gottingen, Germany  |
|          | <b>3:00 PM - 4:30 PM</b>  | <b>SADS Exhibit Booth 148</b>  |
| Hall ABC | <b><u><a href="#">S-PO01. Featured Poster Session</a></u></b>   |  |
|          | <b>5:00 PM - 6:30 PM</b>  |  |
|          | <b>5:00 PM - 6:30 PM</b>  | <u><a href="#">S-PO01-021 / S-PO01-021 S-PO01-021. Patients' Desires For Details From Their Cardiac Implantable Electronic Devices (cied) And Navigating Their Own Data: A Complicated Mismatch; A Prospective Survey Based Study In Patients With Cardiac Implantable Electronic Devices (cied)</a></u><br>Divyang Rajesh. Patel, MD, Peter Hu, MD, Henry Hilow, MS, Cameron Lambert, MD, Michelle Moufawad, BS, Suzanne Hall, BSN, Ayman A.. Hussein, MD, FHRS, Bryan Baranowski, MD, Mandeep Bhargava, MBBS, John Rickard, MD, MPH, Daniel J.. Cantillon, MD, FHRS, Walid I.. Saliba, MD, FHRS, Bruce L.. Wilkoff, MD, FHRS, CCDS, Oussama M.. Wazni, MD, FHRS and Khalidoun G.. Tarakji, MD, MPH, FHRS. Cleveland Clinic Foundation, Cleveland, OH, Cleveland Clinic Foundation, University Heights, OH, Cleveland Clinic, Cleveland, OH, Cleveland Clinic, Cardiology/EP, Solon, OH, Cleveland Clinic, Cardiology, Solon, OH, Cleveland Clinic, Cleveland Heights, OH, Cleveland Clinic, Cardiology, Hudson, OH, Cleveland Clinic, Bentleyville, OH, Cleveland Clinic, Pepper Pike, OH Display Abstract |
|          | <b>5:00 PM - 6:30 PM</b>  | <u><a href="#">S-PO01-024 / S-PO01-024 S-PO01-024. Real-world Incidence Of Therapy Device Implants Following Diagnostic Monitoring With External Ecg Monitors And Insertable Cardiac Monitors</a></u><br><br>Rod S. Passman, MD, FHRS, Shantanu Sarkar, PhD, Jodi Koehler, M.S. and Sean R. Landman. Northwestern Memorial Hospital, Dept of Cardiology, Chicago, IL, Medtronic Plc, Moundsview, MN, Medtronic, Inc, MN, Medtronic, Inc, Minneapolis, MN Display Abstract  |
|          | <b>5:00 PM - 6:30 PM</b>  | <u><a href="#">S-PO01-145 / S-PO01-145 S-PO01-145. The QT-Polygenic Risk Score And Its Contribution To Congenital Long QT Syndrome</a></u>   |

Kari L. Turkowski, Steven Dotzler, David Tester, BS, John R. Giudicessi, MD, PhD, Johan M. Bos, MD, PhD, Ashley Speziale, Jason Vollenweider and Michael J. Ackerman, MD, PhD. Mayo Clinic Graduate School, Rochester, MN, Mayo Clinic, Rochester, MN, Mayo Clinic College of Medicine, Rochester, MN Display Abstract

5:00 PM - 6:30 PM

[S-PO01-175 / S-PO01-175 S-PO01-175. Brugada Syndrome Risk Stratification - Evaluation Of Clinical And ECG Risk Markers In A Multicenter International Primary Prevention Cohort.](#)

Shohreh Honarbakhsh, MRCP BSc, Rui Providencia, Jorge Garcia-Hernandez, Claire A. Martin, MA, MBBS, PhD, Ross J. Hunter, PhD, Wei Y. Lim, Claire Kirkby, A. Sharifzadehgan, Waldmann V Waldmann, E. Marijon, C. Munoz-Esparza, J. Lacunza, JR Gimeno, B. Ankou, P. Chavalier, N. Antonio, L. Elvas, S. Castelletti, L. Crotti, Peter J. Schwartz, MD, M. Scamavacca, F. Darrieux, L. Sacilotto, J. Mueller-Leisse, Christian Veltmann, MD, N. Cortez-Dias, PS Antonio, Joao De Sousa, MD, Pedro Adragao, Diogo M. Cavaco, MD, FM Costa, SERGE BOVEDA, MD, PhD, MJ Sousa, Z. Jebberi, P. Heck, S. Mehta, G. Conte, T. Oezkartal, A. Auricchio, Martin D. Lowe, Richard J. Schilling, David Prieto-Merino and Pier D. Lambiase. The Barts Heart Centre, London, United Kingdom, Farr Research Institute, London, United Kingdom, Papworth Hospital NHS Foundation Trust, Cambridge, United Kingdom, European Georges Pompidou Hospital, Paris, France, University Hospital Virgen Arrixaca, Murcia, Spain, Hôpital Cardiovasculaire Louis Pradel, Lyon, France, Coimbra Hospital and University Centre, Coimbra, Portugal, Center for Cardiac Arrhythmias of Genetic Origin, Milan, Italy, Instituto do Coracao, Hospital das Clinicas HCFMUSP, Sao Paulo, Brazil, Instituto do Coracao, Hospital das Clinicas HCFMUS, Sao Paulo, Brazil, Hannover Medical School, Hannover, Germany, Santa Maria University Hospital, Lisbon, Portugal, Hospital Santa Cruz, LISBON, Portugal, Hospital Santa Cruz, Lisbon, Portugal, CLINIQUE PASTEUR, TOULOUSE, France, Clinique Pasteur, Toulouse, France, Addenbroke's Hospital, Cambridge, United Kingdom, Fondazione Cardiocentro Ticino, Lugano, Switzerland Display Abstract

6:30 PM - 8:00 PM

**PACES annual Meeting - SADS Young Investigators Awards - Marriott Marquis**

## Thursday, May. 9, 2019

Room 11

[S-AB02. Sudden Arrhythmic Death: Variants and Mechanisms](#)

8:00 AM - 9:30 AM

8:00 AM - 8:15 AM

[S-AB02-01 / S-AB02-01 S-AB02-01. Case Control Analysis Shows High Burden Of CASQ2 And LMNA Variants In A Large Cohort Of Sudden Arrhythmic Death Syndrome Victims](#)

Belinda R. Gray, MBBS, PhD, CCDS, Alan Pittman, James S. Ware, BChir, MA, MB, Chris Miles, MBChB, Estathios Papatheodorou, Michael Papadakis, Jonathan Robert. Skinner, MD, FHRS, Jacob Tfelt-Hansen, DSC, MD, Maite Tome-Esteban, Marta Cohen, Arthur A. M. Wilde, MD, PhD, Sanjay Sharma, MD, Stuart Cook, Mary Sheppard, MD and Elijah Behr, MA, MBBS, MD. St George's University of London, London, United Kingdom, Imperial College London, Molecular Cardiology, London, United Kingdom, St George's, University of London, London, United Kingdom, St George's University of London, United Kingdom, Starship Hospital, Auckland, New Zealand, The Department of Cardiology, Copenhagen University, Rigshospitalet, Denmark, Copenhagen, Denmark, Sheffield Childrens Hospital, London, United Kingdom, Univ of Amsterdam - Academic Medical Center, Amsterdam, Netherlands, St. George's, University of London, London, United Kingdom, Imperial College, London, United Kingdom, St George's, University of London, London, United Kingdom Display Abstract

8:15 AM - 8:30 AM

[S-AB02-02 / S-AB02-02 S-AB02-02. Common Genetic Variation Affects Phenotypic Heterogeneity In A Scn5a-mutation Founder Population](#)

Aaron Isaacs, Andrei Barysenka, Rachel M.A. ter Bekke, Apollonia T.J.M. Helderma-van den Eenden, Arthur van den Wijngaard, Paul G. A. Volders and Monika Stoll. CARIM School for Cardiovascular Diseases, Maastricht University, Maastricht, Netherlands, Department of Genetic Epidemiology, Institute of Human Genetics, University of Münster, Münster, Germany, Department of Clinical Genetics, Maastricht University Medical Centre, Maastricht, Netherlands Display Abstract

**8:30 AM - 8:45 AM**

[S-AB02-03 / S-AB02-03 S-AB02-03. Natural And Undetermined Sudden Death: Value Of Post-mortem Genetic Investigation](#)

Georgia Sarquella-Brugada, MD, PhD, Sergi Cesar Díaz, MD, Victori Fiol Ramis, Anna Fernandez Falgueras, Josep Castellà, Ramon Brugada, Josep Brugada and Oscar Campuzano, PhD. Hospital Sant Joan de Deu, Barcelona, Spain, Hospital Sant Joan de Deu, Esplugues, Barcelona, Spain, Medical Sciences Department, School of Medicine, Cardiovascular Genetic Center, IDIBGI, Univerisity of Girona, Esplugues, Barcelona, Spain, IMLF Barcelona, Barcelona, Spain, Medical Sciences Department, School of Medicine, Cardiovascular Genetic Center, IDIBGI, Univerisity of Girona, Girona, Spain Display Abstract

**8:45 AM - 9:00 AM**

[S-AB02-04 / S-AB02-04 S-AB02-04. Established In Vitro Loss-of-Function Variants In ANK2-Encoded Ankyrin B Rarely Cause A Concerning Cardiac Phenotype In Humans](#)

John R.. Giudicessi, MD, PhD and Michael J.. Ackerman, MD, PhD. Mayo Clinic College of Medicine, Rochester, MN, Mayo Clinic, Rochester, MN

**9:00 AM - 9:15 AM**

[S-AB02-05 / S-AB02-05 S-AB02-05. Diltiazem Reverses Long Qt-phenotype Of A Hypertrophic Cardiomyopathy Caused by A Novel Mutation In Alpha-actinin 2](#)

Marc D. Lemoine, MD, Maksymilian Prondzynski, PhD, Andrés Horváth, MSc, Nico Kresin, Felix Friedreich, Julia Münch, Monica Patten, Christian Meyer, Thomas Eschenhagen, Torsten Christ and Lucie Carrier. Department of Cardiology and Electrophysiology, University Heart Center Hamburg, Hamburg, Germany, Institute of Experimental Pharmacology and Toxicology, University Medical Center Hamburg-Eppendorf and DZHK (German Centre for Cardiovascular Research), Hamburg, Germany, Institute of Experimental Pharmacology and Toxicology, University Medical Center Hamburg-Eppendorf and DZHK (German Centre for Cardiovascular Research), Hamburg, Germany, Department of General and Interventional Cardiology, University Heart Center, Hamburg, Germany Display Abstract

Room 203

## [S-013. Genetics and Arrhythmias: Beyond Mendel's Peas](#)

**10:30 AM - 12:00 PM**

Chairs Susan P.. Etheridge, MD, FHRS, CEPS-P. Univ of Utah, Dept Pediatric Cardiology, Salt Lake City, UT  
Peter F.. Aziz, MD, FHRS, CEPS-P. Cleveland Clinic Foundation, Cleveland, OH

Panelist Christina Y.. Miyake, MD. Texas Children'S Hospital, Houston, TX  
Martin Tristani-Firouzi, MD. University of Utah, Salt Lake City, UT

**10:45 AM - 10:55 AM**

[Genetics Functional Testing: Are We Ready for Prime Time?](#)

Alfred L.. George, MD. Department of Pharmacology, Northwestern University Feinberg School of Medicine, Chicago, IL

**11:00 AM - 11:10 AM**

[Mosaics: How, How Common and How Important?](#)

Vassilios J. Bezzerides, MD, CEPS-P. Boston Children's Hospital/BIDMC, Boston, MA

Room 201

## [S-010. From the ECG to the Diagnosis: How to Squeeze out All the Information Contained](#)

**11:36 AM - 11:48 AM**

[ECG Risk Stratification in Brugada Syndrome](#)

Pier D.. Lambiase, MBChB, FHRS. Barts Heart Centre, London, Edgware, United Kingdom

|          |   |
|----------|---|
| Room 211 | <p><b><u><a href="#">S-018. Meet-the-Experts: Unresolved Channelopathy Questions</a></u></b></p> <p><b>12:15 PM - 1:15 PM</b></p> <p><b>12:15 PM - 12:30 PM</b>      <a href="#">Idiopathic VF: Why Is It Still Idiopathic?</a></p> <p>Prince J.. Kannankeril, MD, MS, FHRS, CEPS-P. Vanderbilt Children's Hospital, Div of Pediatric Cardiology, Nashville, TN</p> <p><b>12:45 PM - 1:00 PM</b>      <a href="#">Using Science to Downgrade Pathogenic Mutations</a></p> <p>Michael J. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN</p>   |
| Room 201 | <p><b><u><a href="#">S-019. Ablation Should Be Performed in All Patients With Brugada Syndrome</a></u></b></p> <p><b>1:30 PM - 2:15 PM</b></p>  |
| Room 215 | <p><b><u><a href="#">S-023. The Right Ventricle as an Arrhythmia Source: What Is Different About It?</a></u></b></p> <p><b>1:30 PM - 3:00 PM</b></p>  |
| Room 306 | <p><b><u><a href="#">S-SP16. What to Do When That Familial Disease Might Not Be So Familial After All: Implications of New Data for Managing HCM &amp; ARVC Families</a></u></b></p> <p><b>1:30 PM - 3:00 PM</b></p> <p><b>1:30 PM - 1:52 PM</b>      <a href="#">Non-Familial ARVC — Is it All Exercise-Induced?</a></p> <p>Cynthia A.. James, MS, PhD. Johns Hopkins University, Baltimore, MD</p> <p><b>2:14 PM - 2:36 PM</b>      <a href="#">Implications for Genetic Counseling — Anticipatory Guidance and Variant Interpretation</a></p> <p>Katherine G.. Spoonamore, MS, CGC. Indiana University/Krannert Institute of Cardiology, Indianapolis, IN</p>  |
| Hall ABC | <p><b><u><a href="#">S-PO03. Poster Session III</a></u></b></p> <p><b>2:00 PM - 4:30 PM</b></p> <p><b>2:00 PM - 4:30 PM</b>      <a href="#">S-PO03-191 / S-PO03-191 S-PO03-191. Evaluation Of The Effects Of Grapefruit Juice On The Qt Interval Of Healthy Volunteers And Patients With Long Qt Syndrome: A Thorough Qt/qtc Study</a></p> <p>Ehud Chorin, MD, PhD, Aviram Hochstadt, MD, Yoav Granot, Shafik Khoury, Arie Lorin Schwartz, MD, Gilad Margolis, Rami Barashi, Dana Viskin, Eihab Gantous, Michael Schnapper, Tal Mekori, Dana Fourey, MD, Milton E.. Guevara, MD, FHRS, Manlio F. Marquez, MD, David Zeltzer, Raphael Rosso, MD and Sami Viskin, MD. Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, Tel Aviv Medical Center, Tel Aviv, Israel, Departamento de Electrofisiología Cardíaca CMN La Raza IMSS, Mexico City, Mexico, Instituto Nacional de Cardiología Ignacio Chavez, Mexico City, Mexico Display Abstract</p> <p><b>2:00 PM - 4:30 PM</b>      <a href="#">S-PO03-193 / S-PO03-193 S-PO03-193. Improving Long Qt Syndrome Diagnosis Using T-wave Morphology Characterization</a></p> |

Ben JM. Hermans, MSc, Tijmen Koopsen, MSc, Aurore Lyon, PhD, Arja S. Vink, MD, MSc(EBP), Arthur A.M. Wilde, MD, PhD, Frank C. Bennis, MSc, Laurent Pison, MD, PhD, Pieter G. Postema, MD, PhD and Tammo Delhaas, MD, PhD. Department of Biomedical Engineering, Maastricht University, Maastricht, Netherlands, Department of Cardiology, Academic Medical Center, Amsterdam, Netherlands, Department of Cardiology, Ziekenhuis Oost Limburg, Genk, Belgium Display Abstract

- Room 211 **[S-048. Back to the Future: EP in 2059](#)**
- 4:30 PM - 6:00 PM**  
Chairs Peter S. Fischbach, MA, MD, CCDS. Emory University School of Medicine, Department of Pediatrics, Atlanta, GA
- 4:30 PM - 4:40 PM** **[TED Talk: What Will Pacing Look Like in 40 Years](#)**  
Robert H. Pass, MD. Children's Hospital at Montefiore, New York, NY
- 4:45 PM - 4:55 PM** **[Ablation: Is There a Future Beyond 95% Success?](#)**  
Shubhayan Sanatani, BS, MD, FHRS, CCDS. Children's Heart Centre, Vancouver, BC, Canada
- 5:00 PM - 5:10 PM** **[Moving to Zero: Eliminating Sudden Death in the Young by 2030](#)**  
Silvia G. Priori, MD, PhD. University of Pavia & ICS Maugeri, Pavia, Italy
- 5:15 PM - 5:25 PM** **[Will Big Databases Cure Your Patients' Arrhythmias?](#)**  
Dan M.. Roden, MD, FHRS. Vanderbilt Univ School of Medicine, Nashville, TN
- 5:45 PM - 5:55 PM** **[Your First Career is Not Your Last Career: Redesigning Your Career](#)**  
Stu (Stuart) Berger, MD. Ann & Robert H. Lurie Children, Chicago, IL
- Room 203 **[S-047. Four Decades of Devices: What Do You Keep and What Do You Throw Away?](#)**
- 4:30 PM - 6:00 PM**  
Chair Anne M.. Dubin, MD, FHRS, CEPS-P. Stanford Univ, Pediatric Cardiology, Palo Alto, CA
- 5:00 PM - 5:10 PM** **[Drinking from the Fire Hose: Managing a Busy Device Clinic](#)**  
Brynn E.. Dechert, APN, FHRS, CCDS. C.S. Mott Children's Hospital, Ann Arbor, MI
- 5:30 PM - 5:40 PM** **[That Is NOT What the Device Manual States: Pediatric Electrophysiologists Must Be Creative](#)**  
Charles I.. Berul, MD, FHRS, CCDS, CEPS-P. Children's National Medical Center, Washington, DC
- Room 213 **[S-037. How to Interpret Variants of Uncertain Significance \(VUS\)](#)**
- 4:30 PM - 6:00 PM**

Room 213

Room 9

[S-SP18. Presenting the 2019 HRS Expert Consensus Statement on Evaluation, Risk Stratification, and Management of Arrhythmogenic Cardiomyopathy](#)

4:30 PM - 6:00 PM

## Friday, May. 10, 2019

Room 4

[S-AB21. Novel Genetic Insights in Rare and Common Arrhythmias](#)

8:00 AM - 9:30 AM

Chairs Takeshi Aiba, MD, PhD. National Cardiovascular Center, Suita, Osaka, Japan

8:00 AM - 8:15 AM

[S-AB21-01 / S-AB21-01 S-AB21-01. Clinical Implications Of Purkinje System Hyperexcitability In Type 3 Long QT Syndrome](#)

Walid Barake, MBBCh, MSCTMR, John R.. Giudicessi, MD, PhD and Michael J.. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN Display Abstract

Chair Gordon F.. Tomaselli, MD, FHRS. Albert Einstein College of Medicine, Bronx, NY

8:15 AM - 8:30 AM

[S-AB21-02 / S-AB21-02 S-AB21-02. The Clinical Phenotype And Natural History Of Type 5 Long QT Syndrome](#)

Yukiko Yukiko. Asaki, MD, Jason D.. Roberts, MD, MAS, Andrea Mazzanti, MD, Johan M. Bos, MD, PhD, Izabela Tuleta, MD, PhD, Lia Crotti, MD, PhD, Moore Benjamin. Shoemaker, MD, Alison R. Muir, M.D., Valentina Kutiyifa, MD, PhD, FHRS, Takeshi Aiba, Andrew D. Krahn, MD, FHRS, Michael H. Gollob, MD, Sharmila Udupa, MD, Eric Vittinghoff, PhD, Gregory M. Marcus, MD, MAS, FHRS, Arthur A. M. Wilde, MD, PhD, Elijah Behr, MA, MBBS, MD, Jacob Tfelt-Hansen, MD, DMSc, Melvin M. Scheinman, MD, FHRS, Marco V. Perez, Wataru Shimizu, MD, PhD, Peter J. Schwartz, MD, Eric Schulze-Bahr, MD, PhD, Susan P. Etheridge, MD, FHRS, CEPS-P, Silvia G. Priori, MD, PhD and Michael J.. Ackerman, MD, PhD. Department of Pediatrics, University of Utah and Primary Children's Hospital, Salt Lake City, UT, Section of Cardiac Electrophysiology, Division of Cardiology, Department of Medicine, Western University, London, ON, Canada, Molecular Cardiology, Istituti Clinici Scientifici Maugeri, Istituto di Ricovero e Cura a Carattere Scientifico and Department of Molecular Medicine, University of Pavia, Pavia, Italy, Depts of Cardiovascular Medicine (Div. of Heart Rhythm Services), Pediatric and Adolescent Medicine (Div. of Pediatric Cardiology), and Molecular Pharmacology & Experimental Therapeutics (Windland Smith Rice Sudden Death Genomics Laboratory), Mayo Clinic, Rochester, MN, Department of Cardiology I, University of Munster, Munster, Germany, IRCCS Istituto Auxologico Italiano, Center for Cardiac Arrhythmias of Genetic Origin and Laboratory of Cardiovascular Genetics and Department of Medicine and Surgery, University of Milano-Bicocca, Milan, Italy, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, Regional Medical Cardiology Centre, Royal Victoria Hospital, Belfast, United Kingdom, Cardiology Division, University of Rochester Medical Center, Rochester, NY, Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Suita, Japan, Heart Rhythm Services, Division of Cardiology, Department of Medicine, University of British Columbia, Vancouver, BC, Canada, Peter Munk Cardiac Centre, Toronto General Hospital, University of Toronto, Toronto, ON, Canada, Children's Hospital of Eastern Ontario, Department of Pediatrics, University of Ottawa, Ottawa, ON, Canada, Department of Epidemiology and Biostatistics, University of California San Francisco, San Francisco, CA, Section of Cardiac Electrophysiology, Division of Cardiology, Department of Medicine, University of California San Francisco, San Francisco, CA, Department of Clinical and Experimental Cardiology, Heart Center, Amsterdam Cardiovascular Sciences, Amsterdam UMC,

University of Amsterdam, Amsterdam, Netherlands, Molecular and Clinical Sciences Research Institute, St. George's University of London, London, United Kingdom, The Department of Cardiology, The Heart Centre, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark, Division of Cardiovascular Medicine, Stanford University School of Medicine, Stanford, CA, Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center and Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan, IRCCS Istituto Auxologico Italiano, Center for Cardiac Arrhythmias of Genetic Origin and Laboratory of Cardiovascular Genetics, Milan, Italy, Institute for Genetics of Heart Disease, University Hospital Munster, Münster, Germany, Department of Pediatrics, University of Utah, and Primary Children's Hospital, Salt Lake City, UT Display Abstract

**8:30 AM - 8:45 AM**

[S-AB21-03 / S-AB21-03 S-AB21-03. Effect Of Age And Gender In The Aetiology And Diagnostic Yield Of Sudden Arrhythmic Death Syndrome](#)

Belinda R.. Gray, MBBS, PhD, CCDS, Efstathios Papatheodorou, Athanasios Bakalakos, Hariharan Raju, MBChB, Yanushi Dullewe. Wijeyeratne, BMBS, Gherardo Finocchiaro, Aneil Malhotra, MBChB, PhD, Maite Tome-Esteban, Michael Papadakis, Mary Sheppard, MD, Sanjay Sharma, MD and Elijah Behr, MA, MBBS, MD. St George's University of London, London, United Kingdom, Macquarie University, Sydney, Australia, St George's, University of London and St George's Hospital, London, London, United Kingdom, St. George's, University of London, London, United Kingdom, St George's, University of London, London, United Kingdom Display Abstract

**8:45 AM - 9:00 AM**

[S-AB21-04 / S-AB21-04 S-AB21-04. Genotype And Mutation Specific Risk For Cardiac Events In Women With Congenital Long-qt Syndrome](#)

Ayhan Yoruk, MD, MPH, Wojciech Zareba, MD, PhD, Valentina Kutiyifa, MD, PhD, FHRS, Mehmet K. Aktas, MD, FHRS, Meng Wang, PhD, Slava Polonsky, MS, Scott McNitt, MS and Ilan Goldenberg, MD. University of Rochester Medical Center, Rochester, NY, University of Rochester Medical Center Display Abstract

**9:00 AM - 9:15 AM**

[S-AB21-05 / S-AB21-05 S-AB21-05. Biophysical Characterization Of A Novel Genetic Variant In Kcnj8 -A88G Linked With J Wave Syndrome Syndrome](#)

Dan Hu, MD, PhD, FHRS, Cinthia Rangel-Sandoval, PhD, Enrique Sanchez-Pastor, PhD, Carlos Onetti, PhD, Ryan Pfeiffer, BS, Tabitha Carrier, BS, Wu Yuesheng, BS, Yan Huang, MD, PhD, Tania Ferrer-Villada, PhD, Charles Antzelevitch, PhD, FHRS and Hector Barajas Martinez, PhD, FHRS. Renmin Hospital of Wuhan University, Wuhan, China, Biomedical Research Center, University of Colima, Colima, Mexico, Masonic Medical Research Laboratory, Utica, NY, Lankenau Institute for Medical Research, Wynnewood, PA Display Abstract

**9:15 AM - 9:30 AM**

[S-AB21-06 / S-AB21-06 S-AB21-06. A Genome-wide Investigation Of Arrhythmia Recurrence Following Atrial Fibrillation Ablation](#)



Moore B.. Shoemaker, MD, Daniela Husser, MD, Carolina Roselli, Meelad I.H. Al-Jazairi, MD, Jonathan Chrispin, MD, Michael S. Kühne, MD, Benjamin Neumann, MD, Stacey Knight, Han Sun, Sanghamitra Mohanty, MBBS, MD, MS, FHRS, Christian Shaffer, BS, Lauren Lee Rinke, MA, Diane M.. Crawford, RN, CCDS, Dawood Darbar, MBChB, MD, FHRS, Andrea Natale, MD, FHRS, Mina K.. Chung, MD, FHRS, Patrick T.. Ellinor, MD, PhD, Saman Nazarian, MD, PhD, FHRS, Michael J.. Cutler, DO, DPhil, Moritz F.. Sinner, MD, David Conen, MD, MPH, Michiel Rienstra, PhD, Andreas Bollmann, MD, PhD, Dan M.. Roden, MD, FHRS and Steven A.. Lubitz, MD, MPH. Vanderbilt University, Cardiology, Nashville, TN, Leipzig University Heart Center, Leipzig, Germany, Broad Institute of MIT and Harvard, Cambridge, MA, University Medical Center Groningen, Groningen, Netherlands, Johns Hopkins University School of Medicine, Baltimore, MD, Cardiology Unit, University Hospital Basel, Basel, Switzerland, Helmholtz Zentrum München, Munich, Germany, Intermountain Healthcare, Salt Lake City, UT, Cleveland Clinic, Cleveland, OH, St. David's Medical Center, Austin, TX, Vanderbilt University, Clinical Pharmacology, Nashville, TN, University of Illinois at Chicago, Chicago, IL, Texas Cardiac Arrhythmia Institute at St. David's Medical Center, Austin, TX, Cleveland Clinic, Dept of Cardiovascular Medicine, Cleveland, OH, Massachusetts General Hospital, Boston, MA, The University of Pennsylvania, Philadelphia, PA, Intermountain Heart Rhythm Specialists, Salt Lake City, UT, LMU Munich, Campus Grosshadern, Munich, Germany, McMaster University, Hamilton, Canada, Hamilton, ON, Canada, University Leipzig, Leipzig, Germany, Vanderbilt Univ School of Medicine, Nashville, TN Display Abstract

Room 211 **[S-AB34. Updates in Pediatric Channelopathies and Sudden Cardiac Death](#)**

**8:00 AM - 9:30 AM**

**8:15 AM - 8:30 AM** [S-AB34-02 / S-AB34-02 S-AB34-02. Assessment And Validation Of A Phenotype-Enhanced Variant Classification Framework To Promote Or Demote RYR2 Variants Of Uncertain Significance](#)

John R.. Giudicessi, MD, PhD, Krystien V.V. Lieve, MD, Ram K. Rohatgi, Faruk Koca, David Tester, BS, Christian van der Werf, MD, PhD, Johan M. Bos, MD, PhD, Arthur A. M.. Wilde, MD, PhD and Michael J.. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN, Univ of Amsterdam - Academic Medical Center, Amsterdam, Netherlands, Academic Medical Center, Amsterdam, Netherlands Display Abstract

**8:45 AM - 9:00 AM** [S-AB34-04 / S-AB34-04 S-AB34-04. The Unexpected Arrhythmic Risk Profile Of A Large Pediatric Population With Brugada Syndrome](#)

Andrea Mazzanti, MD, Paz Ovics, Ayelet Shauer, Stefano Mameli, Maira Marino, Raffaella Bloise, Nicola Monteforte, Alice Maltret, Cristina Raimondo, Carlo Napolitano and Silvia G.. Priori. ICS Maugeri, Pavia, Italy, Hospital Necker, Paris, France, Hospital Necker, Pavia, Italy Display Abstract

**9:00 AM - 9:15 AM** [S-AB34-05 / S-AB34-05 S-AB34-05. Management Strategies And Outcomes Of Signature Long QT Syndrome Arrhythmia Presenting In The Perinatal Period: A Multicenter Registry Study](#)

Danielle Harake, Jeremy P. Moore, MD, MS, FHRS, CCDS, CEPS-P, Roberto G. Gallotti, MD, Johan M. Bos, MD, PhD, Michael J.. Ackerman, MD, PhD, Richard J.. Czossek, MD, CCDS, Kara S.. Motonaga, MD, CEPS-P, Prince J.. Kannankeril, MD, MS, FHRS, CEPS-P, Matthew R.. Williams, MD, CEPS-P, Peter S.. Fischbach, MA, MD, CCDS, Susan P.. Etheridge, MD, FHRS, CEPS-P, Reina B. Tan, MD, Christina Y.. Miyake, MD, Seshadri Balaji, MBBS, PhD, CEPS-P and Kevin M.. Shannon, MD. University of California, Los Angeles, Los Angeles, CA, UCLA Medical Center, Pediatrics, Dept of Pediatric Cardiology, Los Angeles, CA, UCLA, Los Angeles, CA, Mayo Clinic, Rochester, MN, Cincinnati Childrens Medical Center, Cincinnati, OH, Stanford University, Palo Alto, CA, Vanderbilt Children's Hospital, Div of Pediatric Cardiology, Nashville, TN, Rady Children's Hospital San Diego, San Diego, CA, Emory University School of Medicine, Department of Pediatrics, Atlanta, GA, Univ of Utah, Dept Pediatric Cardiology, Salt Lake City,

UT, New York University Langone Medical Center, New York, NY, Texas Children's Hospital, Houston, TX, Oregon Health and Science University, Portland, OR Display Abstract

**9:15 AM - 9:30 AM** [S-AB34-06 / S-AB34-06 S-AB34-06. Prospective Countywide Surveillance And Autopsy Characterization Of Sudden Death In The Young: San Francisco POST SDY Study](#)

Zian H.. Tseng, MD, Ronn E.. Tanel, MD, FHRS, CEPS-P, Philip Ursell, MD, Andrew Connolly, MD, PhD, Jeffrey E.. Olgin, MD, FHRS, Joanne Probert, BA, Shiktij Dave, BA and Ellen Moffatt. University of California, San Francisco, Cardiac EP, San Francisco, CA, UCSF Benioff Children's Hospital; Pediatric Cardiology, San Francisco, CA, University of California, San Francisco, Pathology, San Francisco, CA, UCSF, Cardiology, San Francisco, CA, University of California, San Francisco, Cardiac EP, CA, Office of the Chief Medical Examiner, San Francisco, San Francisco, CA Display Abstract

Room 203 [S-AB35. Heritable Arrhythmias in Children](#)

**8:00 AM - 9:30 AM**

Chair Stephanie Frances. Chandler, MD. Boston Children's Hospital, Boston, MA Display Abstract

**8:00 AM - 8:15 AM** [S-AB35-01 / S-AB35-01 S-AB35-01. Left Cardiac Sympathetic Denervation \(LCSD\) Monotherapy In Patients With Long Qt Syndrome \(LQTS\)](#)

Johan M. Bos, MD, PhD, Katrina B. Sorensen, Christopher Moir, MD and Michael J.. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN Display Abstract

**8:15 AM - 8:30 AM** [S-AB35-02 / S-AB35-02 S-AB35-02. Pore-localizing Pathogenic Variants In The KCNQ1-encoded Kv7.1: A Novel Risk Factor For Patients With Type 1 Long Qt Syndrome](#)

Ram K. Rohatgi, Johan M. Bos, MD, PhD, John R.. Giudicessi, MD, PhD and Michael J.. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN, Mayo Clinic College of Medicine, Rochester, MN Display Abstract

**8:45 AM - 9:00 AM** [S-AB35-04 / S-AB35-04 S-AB35-04. Outcomes Of Genetic Testing By Era In A Large Academic Center: Increasing Variants Of Unknown Significance](#)

Christopher W.. Follansbee, MD, Jeffrey J.. Kim, MD, Santiago O.. Valdes, MD, Taylor Stewart. Howard, MD, Allen Hu and Christina Y.. Miyake, MD. Texas Children's Hospital, Houston, TX, Baylor College of Medicine, Houston, TX Display Abstract

**9:00 AM - 9:15 AM** [S-AB35-05 / S-AB35-05 S-AB35-05. Prevalence And Phenotypic Correlations Of Calmodulinopathy-Causative CALM1-3 Variants Detected In A Multi-Center Molecular Autopsy Cohort Of Sudden Unexplained Death Victims](#)

Daniel J. Clemens, BS, Belinda R. Gray, MBBS, PhD, CCDS, Richard D. Bagnall, PhD, John R. Giudicessi, MD, PhD, David J. Tester, BS, Lia Crotti, MD, PhD, Peter J. Schwartz, MD, Christopher Semsarian, MBBS, MPH, PhD, FHRS, Elijah R. Behr, MA, MBBS, MD and Michael J. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN, St. George's, University of London, London, United Kingdom, University of Sydney, Newtown, Australia, IRCCS Istituto Auxologico Italiano, Milan, Italy, Center for Cardiac Arrhythmias of Genetic Origin, Milan, Italy, St. George's, University of London, London, United Kingdom Display Abstract

**9:15 AM - 9:30 AM** **Presentation Abstract Commentator**

Dominic J. Abrams, MBBS, MD. Children's Hospital Boston, Boston, MA

Room 213 **S-053. Unbreak My Heart: Progress Towards Personalized Arrhythmia Treatment**

**10:30 AM - 10:50 AM**

**10:30 AM - 10:50 AM** [Understanding Stem Cell-Derived Cardiomyocytes via Computational Modeling](#)

Stefano Severi, PhD. University of Bologna, Cesena, Italy

**11:10 AM - 11:30 AM** [Stem Cell-derived Biological Pacemakers to Treat Conduction System Disorders](#)

Eugenio Cingolani, MD. Cedars-Sinai Medical Center, Los Angeles, CA

**11:30 AM - 11:50 AM** [Can Polygenic Risk Scores Help Personalize Antiarrhythmic Therapy?](#)

Christopher H.. Newton-Cheh, MD, MPH. Massachusetts General Hospital, Cardiology, Lexington, MA

Room 215 **S-054. Ventricular Arrhythmias and the His Purkinje System**

**10:30 AM - 12:00 PM**

**11:36 AM - 11:48 AM** [Is the Conduction System the Source of Arrhythmias in CPVT?](#)

Bjorn C.. Knollmann, MD, PhD. Vanderbilt Univ School of Medicine, Medicine and Pharmacology, Nashville, TN

**10:45 AM - 11:45 AM**

EPicenter  
Lab 3

**S-SP19. What Are Atypical Clinical Paths Really Like?**

**10:45 AM - 11:45 AM**

**11:30 AM - 11:45 AM** [Rural Electrophysiology](#)

Susan P.. Etheridge, MD, FHRS, CEPS-P. Univ of Utah, Dept Pediatric Cardiology, Salt Lake City, UT

**NSGC -- Cardiac SIG**

**11:30 AM - 1:30 PM**

Room 205 **S-067. Avoiding ICD Therapy in Inherited Arrhythmia Syndromes and Cardiomyopathies**

**12:15 PM - 1:15 PM**

Chair Eric J.. Rashba, MD, FHRS. SUNY-Stony Brook Univ Medical Center, Stony Brook, NY

**12:15 PM - 12:35 PM** [How to Avoid ICD Implant in H\(O\)CM and ARVC](#)

William J. McKenna, MD. Institute of Cardiovascular Science, London, United Kingdom

**12:35 PM - 12:55 PM** [How to Avoid ICD Implant in Primary Electrical Disease](#)

Michael J. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN

**12:55 PM - 1:15 PM** [Panel Discussion and Q&A](#)

## Friday NSGC Cardiac SIG - Intercon A&B 5th Floor

**12:15 PM - 1:15 PM**

Room 22 [S-070. Comprehensive Approach to Evaluation of At-Risk Youth for SCD](#)

**1:30 PM - 3:00 PM**

Chair Katy Bos, APRN. Mayo Clinic, Rochester, MN

**1:30 PM - 1:45 PM** [When Syncope is a Red Flag, Not Just a Red Herring](#)

Melissa Olen, MSN. Nicklaus Children's Hospital, Miami, FL

**1:50 PM - 2:05 PM** [A Needle in the Haystack: The Yield of Testing in SUDS](#)

Brynn E.. Dechert, APN, FHRS, CCDS. C.S. Mott Children's Hospital, Ann Arbor, MI

**2:10 PM - 2:25 PM** [Role and Interpretation of Genetic Testing](#)

Heather M.. Macleod, MS. Sibley Heart Center, Alpharetta, GA

**2:30 PM - 2:45 PM** [Preparing the Patient and Family for Lifestyle Modifications after SUDS](#)

Shannon Hourigan, PhD. Boston Children's Hospital, MA

Room 213 [S-071. Arrhythmogenic Right Ventricular Cardiomyopathy: State-of-the-Field \(A Session Honoring Dr. Frank Marcus\)](#)

**1:30 PM - 3:00 PM**

Chair Mario Delmar, MD, PhD, FHRS. New York University School of Medicine, New York, NY

**1:40 PM - 1:58 PM** [ARVC: New insights on mechanisms](#)

Marina Cerrone, MD. NYU School of Medicine, New York, NY

**2:16 PM - 2:34 PM** [ARVC: Who is at Risk of Sudden Death? And What to do About It](#)

Hugh Calkins, MD, FHRS, CCDS. Johns Hopkins Hospital, Baltimore, MD

**2:34 PM - 2:55 PM** [Case presentation: Is it ARVC? And what should I do about it?](#)

Argelia Medeiros-Domingo. Inselspital, Bern University Hospital, Mexico

**2:55 PM - 3:00 PM** [Concluding remarks](#)

Frank I.. Marcus, MD. Univ of Arizona-Health Sciences Center, Sarver Heart Center, Tucson, AZ

- Room 306 **[S-SP29. Beware the DIY Genome Analysis: Update for Practitioners of Inaccurate Results in Direct-to-Consumer Testing for Inherited Cardiovascular Disease Genes](#)**
- 1:30 PM - 3:00 PM**
- 1:30 PM - 2:00 PM** [What's in a Test? Differences Between Clinical Genetic Testing and Direct to Consumer Testing](#)  
Tia Gabriela Rill, Moscarello, BS, MS. Stanford Healthcare, Stanford, CA
- 2:00 PM - 2:30 PM** [Wrong Diagnoses and Inappropriate ICDs: Pitfalls of using DTC results for clinical care](#)  
Brittney A. Murray, MS. Johns Hopkins Hospital, Baltimore, MD
- 2:30 PM - 3:00 PM** [Long Term Implications of DTC Testing, Clinical Utility and Use of Healthcare Resources](#)  
Patricia L. Arscoff, MS, CGC. University of Michigan, Ann Arbor, MI
- Room 213 **[S-086. Ion Channel Trafficking and Targeting: Mechanisms and Therapeutic Targets](#)**
- 4:30 PM - 6:00 PM**
- Chair Craig T. January, MD, PhD. Univ Of Wisconsin Hospital and Clinic, Madison, WI
- 4:48 PM - 5:06 PM** [Kir2.X and Caveolin-3 Domains Interactions](#)  
L. Lee Eckhardt, MD, FHRS. University of Wisconsin, School, Madison, WI
- 5:24 PM - 5:42 PM** [Drug Therapy to Rescue Ion Channel Trafficking](#)  
Lia Crotti, MD, PhD. IRCCS Istituto Auxologico Italiano, Milan, MI, Italy
- 5:42 PM - 6:00 PM** [Can iPSCs Help Us Understand Channelopathies Caused by Trafficking Deficits?](#)  
Peter J. Schwartz, MD. Center for Cardiac Arrhythmias of Genetic Origin, Milan, Italy
- Room 308 **[S-JS14. SADS/HRS Joint Session: Pediatric and Young Adult Ventricular Arrhythmia: Outpatient Diagnosis and Management](#)**
- 4:30 PM - 6:00 PM**
- Chair Elijah Behr, MA, MBBS, MD. St George's University of London, London, United Kingdom
- 4:30 PM - 4:48 PM** [What Constitutes "Benign" ventricular Arrhythmia](#)  
Peter F. Aziz, MD, FHRS, CEPS-P. Cleveland Clinic Foundation, Cleveland, OH
- 4:30 PM - 5:06 PM** [Not so Benign Ventricular Ectopy](#)  
Sami Viskin, MD. Tel Aviv Medical Center, Tel Aviv, Israel
- 4:50 PM - 5:24 PM** [Athletes and Exercise Induced Ventricular Arrhythmias: Who is an Athlete? — Clearing Scary Ventricular Arrhythmias](#)  
Charles I. Berul, MD, FHRS, CCDS, CEPS-P. Children's National Medical Center, Washington, DC
- 5:10 PM - 5:42 PM** [Assessment of Postoperative Congenital Heart Disease Ventricular Arrhythmia: Electrophysiologic vs Noninvasive Testing](#)  
Edward P. Walsh, MD, FHRS, CCDS, CEPS-P. Boston Children's Hospital, Boston, MA
- 5:30 PM - 6:00 PM** [Arrhythmogenic Right Ventricular Cardiomyopathy and CPVT: Worrisome Diagnostic Patterns, Endpoints for Treatment](#)  
Christian van der Werf, MD, PhD. Academic Medical Center, Amsterdam, Netherlands

## Saturday, May. 11, 2019

Room 213

### [S-108. ICDs in Specific High-Risk Populations: Controversies and Current Evidence](#)

**10:30 AM - 12:00 PM**

Chair N. A. Mark Estes, MD, FHRS, CCDS. UPMC, Boston, MA

**11:00 AM - 11:10 AM**

[When Should we Implant an ICD for Long QT Syndrome?](#)

Michael J.. Ackerman, MD, PhD. Mayo Clinic, Rochester, MN

**11:30 AM - 11:40 AM**

[When Would you Place an ICD in a Patient with Brugada Syndrome?](#)

Gregory K.. Feld, MD, FHRS. Univ of California San Diego, La Jolla, CA

**11:45 AM - 11:55 AM**

[Role of ICDs in LV Non-Compaction and Mitochondrial Cardiomyopathies](#)

Jeffrey A.. Towbin, MD, MS. Le Bonheur Children'S Hospital, Memphis, TN

Room 12

### [S-106. Posttranslational Regulation of Cardiac Ion Channels in Disease](#)

**10:30 AM - 12:00 PM**

**11:20 AM - 11:40 AM**

[Estradiol-mediated regulation of calcium channels in the heart: Implications to arrhythmogenesis in LQT2](#)

Guy Salama, PhD, FHRS. Univ of Pittsburgh School of Medicine, Pittsburgh, PA