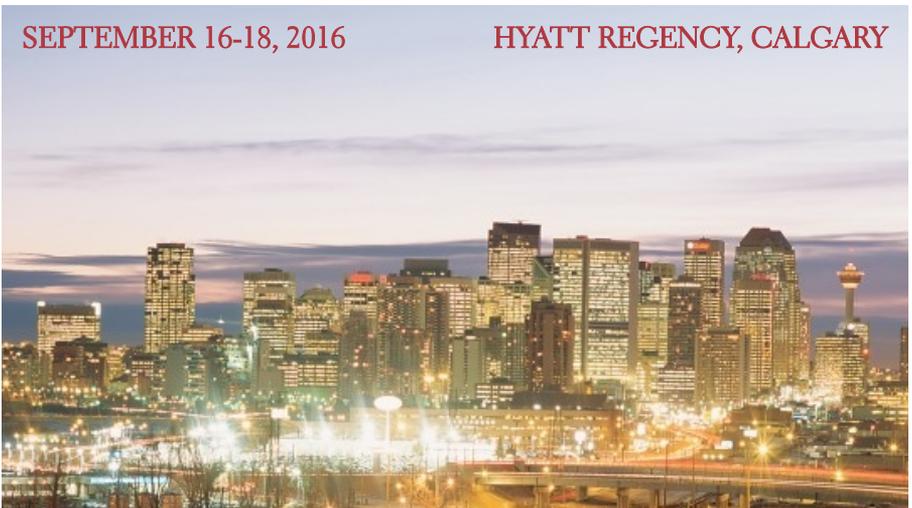


# The Canadian Heart Rhythm Society

## 4<sup>th</sup> Annual Meeting

SEPTEMBER 16-18, 2016

HYATT REGENCY, CALGARY



September 2016

This year marks the fourth year of a dedicated meeting of Canadian heart rhythm professionals, and the third year of the integrated basic science, pediatric and adult clinical format. The planning committee have challenged themselves to come up with new topics that support our young investigators and clinicians, while still preserving some of the favorites from the past. Again this year, we are aligning our meeting with the Canadian Arrhythmia Network meeting, to promote collaborative research discussions and explore our shared interests.

In keeping with our national spirit, we have rotated the meeting to a western location and are very excited to be in Calgary. Calgary has a long-standing tradition of excellence in electrophysiology and we are looking forward to their world-renowned hospitality.

We have been very fortunate to secure support from several generous sponsors, and I would like to thank each of them for their commitment to our professional development. I also had the privilege of working with an outstanding planning committee. Without our volunteers and our sponsors, this meeting would not be possible.

After four years of intimate involvement with this meeting, it is with mixed emotions that I am stepping down as meeting Chair to make way for renewed energy and vision. It has truly been an honour to represent the Canadian Heart Rhythm Society in this venture. I would like to thank all of you for making this meeting a success. We have valued your participation and feedback over the years. We believe that the culture of Canadian collaboration is alive and well, and are proud to showcase it this weekend.



Shubhayan Sanatani, MD, FRCPC, CCDS, FHRS  
Chair, CHRS Annual Meeting

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*This event is an accredited group learning activity under Section 1 as defined by the Royal College of Physicians & Surgeons of Canada for the Maintenance of Certification program. This program is approved by the Canadian Cardiovascular Society for a maximum of 11.5 credits.*

## — Faculty —

**Paul Angaran**  
**Jamil Bashir**  
**Matt Bennett**  
**Bonnie Catlin**  
**Susan Christian**  
**Tom Claydon**  
**Robin Clegg**  
**Santokh Dhillon**  
**Robert Hamilton**  
**Jeff Healey**  
**Andrew Krahn**  
**Zachary Laksman**  
**Pablo Nery**

**Alexander Quinn**  
**Lena Rivard**  
**Jason Roberts**  
**Karine Roy**  
**Julie Rutberg**  
**John Sapp**  
**Mike Seidman**  
**Christopher Simpson**  
**John Spertus**  
**Glen Sumner**  
**Steve Wilton**  
**George Wyse**

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## — Planning Committee —

**Shubhayan Sanatani**  
Chair

**Joseph Atallah**  
Pediatric Community Representative  
**Matthew Bennett**  
Education Committee Chair  
**Thomas Claydon**  
Basic Science Researcher Representative

**Jacqueline Forman**  
Allied Health Representative  
**Jeff Healey**  
Research Representative  
**Benoit Plourde**  
Fellow's Representative

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## — Learning Objectives —

### **Participants will be able to:**

- Bring together heart rhythm professionals from Canada for an opportunity to exchange ideas, foster collaboration and deliver education.
- Discuss new developments in genetic heart rhythm disorders.
- Provide an overview of research methodologies as they pertain to heart rhythm research in Canada.
- Discuss new technologies in heart rhythm management.
- Explore the development and translation of experimental models of arrhythmia from the basic science lab.

*See the program for a full listing of learning objectives by session*

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FRIDAY, SEPTEMBER 16, 2016

11:00 **REGISTRATION OPENS**

11:00 **HIRO Investigator Meeting** ...*Neilson 2*

12:00 **CHRS Executive Committee Meeting** ...*Walker*

12:00 **LUNCH** ...*Grand Foyer 1*

13:00 **WELCOME AND INTRODUCTION** ...*Imperial 123*

13:05 **INHERITED HEART RHYTHM UPDATE** ...*Imperial 123*

**ERS, IVF and Other Three-Letter Causes of SUD**

— Paul Angaran

**Evolution of Cardiac Genetics**

— Julie Rutberg

**Challenges and Opportunities in Next-Generation Sequencing**

— Jason Roberts

**Hearts in Rhythm Organization (HIRO): The New Genetic Network for Canada**

— Andrew Krahn

**When to Test: Presymptomatic Genetic Testing for Children at Risk of an Inherited Arrhythmia or Cardiomyopathy**

— Susan Christian

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Review the epidemiology, pathophysiology and clinical presentation of ERS and IVF
- Describe how genetic testing and expert guidelines have changed the process of a cardiac genetic evaluation over the past decade
- Understand the functional differences between traditional Sanger sequencing and next-generation sequencing
- Appreciate the wealth of data that next-generation sequencing can generate
- Appreciate the challenges associated with interpreting this data
- Become a member of Canada's emerging network for providers, patients and researchers with a focus on inherited causes of sudden death
- Discover factors associated with uptake of presymptomatic genetic testing for inherited arrhythmias and cardiomyopathies in the pediatric population

14:45 **NUTRITION BREAK** ...*Grand Foyer 1*

# — Program —

15:15 **RESEARCH WISDOM** ...*Imperial 123*

## **The CHRS and Clinical Research**

— Jeff Healey

## **The CHRS and Basic Science Research: How Can CHRS Help Basic Science Researchers and Cardiologists?**

— Thomas Claydon

## **How to Succeed as a New Investigator: What I Wish I Knew Back Then**

— George Wyse

## **The First Canadian Pediatric EP RCT: What Should It Be?**

— Robert Hamilton

## **Risk-Prediction Models and Health Outcomes**

— John Spertus

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Facilitate arrhythmia research in Canada
  - Summarize mechanisms by which CHRS may be able to facilitate engagement with basic science researchers
  - Understand that Success = [(Hard Work)\* x (Prepared, Open Mind)\* x (Ability)\*]1.y  
Y = luck
- \*NB: whenever Hard Work, Prepared, Open Mind, or Ability approach zero, success is unlikely.
- List the requirements for a successful clinical trial, recognize the challenges of clinical trials in pediatric cardiology and gauge their appetite to lead or participate in
  - Compare and contrast the potential and challenges of implementing precision medicine and appreciate the role of clinician leadership in its success

17:30-19:00 **WELCOME RECEPTION** ...*Stephen AB*

## SATURDAY, SEPTEMBER 17, 2016

07:00 - 08:00 **CHRS Device Committee Meeting** ...*Neilson 2*

07:00 **REGISTRATION AND BREAKFAST** ...*Grand Foyer*

08:00 **HEALTH POLICY SPECIAL LECTURE** ...*Imperial 123*

## **How Can We Afford Electrophysiology in the Future?**

— Christopher Simpson

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Understand the impact of the aging population on health care costs in Canada
- Appreciate the costs versus impact of “high tech” versus “low tech” medical treatments

09:30 **NUTRITION BREAK** ...*Grand Foyer*

# — Program —

SATURDAY, SEPTEMBER 17, 2016 *(continued)*

10:00 **CARDIAC RHYTHM DEVICES** ...*Imperial 123*

**SQ ICD, Leadless Pacing**

— Jamil Bashir

**Novel Paradigms in Cardiac Resynchronization Therapy:  
Multisite and Endocardial Left Ventricular Pacing**

— Glen Sumner

**Pediatric Patients Who Can Benefit From Earlier Initiation of CRT**

— Santokh Dhillon

**Heart Failure End-of-Life Deactivation of ICD Guidelines**

— Matthew Bennett & Bonnie Catlin

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Recognize the practical application of subcutaneous ICD technology to patients at risk for tachy-arrhythmia: pitfalls and challenges of screening, implant, threshold testing, and defibrillation efficacy
- Examine the techniques and rationale for endocardial and multisite left ventricular pacing
- Discuss the selection of patients and challenges in application of cardiac resynchronization therapy in pediatric patients
- Identify the resources and steps needed to establish a coordinated and standardized approach to ICD deactivation
- Improve patient care: establishing a coordinated and standardized approach to ICD deactivation in BC

12:00 **LUNCH** ...*Grand Foyer*

12:00 -13:30 **CHRS Ablation Committee Lunch Meeting** ...*Gallery*

12:00 -13:30 **Allied Health Professional Lunch Meeting** ...*Walker Bannerman*

12:00 -13:30 **Basic Science Lunch Meeting** ...*Neilson 4*

12:00 -12:45 **Royal College AFC EP Committee Lunch Meeting** ...*Neilson 2*

12:45 -13:30 **Program Directors Meeting** ...*Neilson 2*

13:30 **CLINICAL ARRHYTHMIA POT-POURRI** ...*Imperial 123*

**Biobanking: Research, Education, and Clinical Utility**

— Michael Seidmam

**Odd Ducks: Sarcoid**

— Pablo Nery

**Ventricular Tachycardia: Chronic Disease and Ablation**

— John Sapp

**Primary Prevention in Pediatric HCM and DCM: What's New?**

— Robin Clegg

**Scars & Ventricular Arrhythmias: More Than Just a Block Party**

— Alexander Quinn

# — Program —

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Explain how biobanks facilitate better practice of and interaction between research, education, and clinical practice
- Recognize that cardiac sarcoidosis may present with cardiac arrhythmias such as complete AV block or ventricular tachycardia and follow standards of care in its diagnosis and management
- Review treatment options, follow-up and evaluation of response to treatment in patients with active disease
- Review the approach to catheter ablation of ventricular tachycardia in patients with cardiac sarcoidosis
- Distinguish the therapeutic options available for ventricular tachycardia in the setting of myocardial scar and the evidence for their use
- Evaluate the limitations of current risk stratification for primary prevention in DCM / HCM in children and young adults
- Use novel risk stratification tools as an adjunct to conventional risk stratification: what's new in 2016
- Understand how non-myocytes modulate cardiac electrical activity and identify the role that scars play in ventricular arrhythmias

15:30 **NUTRITION BREAK** ...*Grand Foyer*

16:00 **ATRIAL ARRHYTHMIAS** ...*Imperial 123*

**Developing Patient-Specific Models in the Research Lab**  
— Zachary Laksman

**AFib Ablation in ACHD Patients: When and Who?**  
— Karine Roy

**My Atrial Fibrillation Nightmares**  
— Lena Rivard & Steve Wilton

LEARNING OBJECTIVES: At the end of this session, participants will be able to:

- Analyze current literature and discuss future directions of patient specific arrhythmia modelling using human pluripotent stem cells
- Recognize challenges of AF ablation in ACHD patients regarding the potentially different mechanisms in cause, difficult anatomy and/or limited access to atria
- Identify challenges arising with management of complications of AF ablation

18:00-19:00 **CHRS Education Committee Meeting** ...*Neilson 2*

**ADJOURNMENT**

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## — Evaluation & Certificate of Attendance —

Please take the time to answer the evaluation questions at  
[www.research.net/r/CHRS2016evaluation](http://www.research.net/r/CHRS2016evaluation)

Completing the evaluation will assist the planning committee with the development of future programs and provide you with your certificate of attendance.









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