

# Final Programme

PLEASE NOTE COLOUR KEY FOR DIFFERENT ATTENDEE GROUPS	<b>GENERAL SESSIONS</b>
	<b>PEDIATRIC &amp; BASIC SCIENCE SESSIONS</b>
	<b>COMMITTEE &amp; BREAKOUT MEETINGS</b>
	<b>HIGHLIGHT EVENTS</b>
<b>SESSION LEARNING OBJECTIVES</b>	

## THURSDAY, September 11, 2014

4:00	<b>CHRS Executive Meeting</b> (by invitation only)
7:00	<b>Canadian Inherited Heart Rhythm Disorders Research Investigator Meeting</b> (by invitation only)
7:00	<b>Canadian EP Program Directors Meeting</b> (by invitation only)
7:00	<b>CPCHRN Business Meeting</b> (by invitation only)
9:00	<b>WELCOME RECEPTION</b>

## FRIDAY, September 12, 2014

7:00	<b>REGISTRATION AND BREAKFAST</b>
7:30	<b>CHRS Executive Meeting</b> (by invitation only)
8:30	<b>WELCOME AND INTRODUCTION</b> – Atul Verma
8:45	<p><b>Genes and Screens: How Do We Use Genetic Testing and Screen Family Members for Genetic Arrhythmia Disorders?</b></p> <ul style="list-style-type: none"> <li>• What genetic tests are available and how do we use them appropriately? – Andrew Krahn</li> <li>• LQT3 and cardiomyopathy - Mohamed Chahine</li> <li>• How do we screen family members for inherited arrhythmia disorders? – Elizabeth Sherwin</li> </ul> <p>Group discussion – Moderator: Shubhayan Sanatani</p> <p>At the conclusion of this session, participants will:</p> <ol style="list-style-type: none"> <li>1. Summarize genetic testing panels available for the investigation of inherited heart rhythm disorders.</li> <li>2. Explain the importance of cascade screening of family members in the inherited heart rhythm disorders.</li> </ol>
10:00	<b>NUTRITION BREAK</b>
10:15	<p><b>Missing the Target? What are the Right Targets for Complex Ablation?</b></p> <ul style="list-style-type: none"> <li>• Targets for persistent AF – Atul Verma</li> <li>• Are rotors real? – Vijay Chauhan</li> <li>• VT substrate ablation (unipolar, bipolar) – Peter Leong-Sit</li> <li>• Do we need new mapping systems for complex ablation? – Laurent Macle</li> </ul> <p>Group discussion – Moderator: Jean-Francois Sarrazin</p> <p>At the conclusion of this session, participants will:</p> <ol style="list-style-type: none"> <li>1. Identify knowledge gaps in appropriate ablation targets for ablation of AF and VT.</li> <li>2. Identify novel mapping techniques and technologies that may help address mapping gaps for ablation</li> </ol>

of AF and VT.

**10:15 Calcium Dysregulation and Ventricular Arrhythmias**

- RYR2 mutations and Ca<sup>2+</sup> dysregulation – Wayne Chen
- Clinical case – Joseph Atallah
- Insight from RYR2 structures – Filip Van Petegem
- Dantrolene and RYR2 blockade as a treatment for preventing VF – Nantha Nanthakumar

At the conclusion of this sessions, participants will:

1. Examine the pathophysiology of ventricular arrhythmias at a cellular level.
2. Recognize the complexity of the ryanodine receptor and its role in ventricular arrhythmias.

**11:45 \*\*\*\*\* KEYNOTE SPEAKER \*\*\*\*\***

**Three Core Questions that Set the Table for Collaboration**

Mark Norman

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**12:30 LUNCH**

**1:30 Networking the Networks: An Update of the Research Network Activities in Canada**

- CAFSPIN – Jeff Healey
- CaNET NCE – Anthony Tang

Group network discussion – Moderator: Paul Dorian

At the conclusion of this session, participants will:

1. List the current research networks active in the Canadian EP community.
2. Discover opportunities for research collaboration.

**1:30 Sinus Node Function**

- ANP and sinus node function – Robert Rose
- Cyclic nucleotide modulation of If – Eric Accili
- Electrical remodeling during pregnancy – Celine Fiset
- Clinical perspective on Sinus node dysfunction in pediatrics - Robert Gow

At the conclusion of this session, participants will:

1. Compare and contrast hormonal and peptide levels and development of the sinus node.
2. Discuss mechanisms of physiological regulation of sinus node function

**3:00 NUTRITION BREAK**

**3:15 THE DEBATERS – CRT-P is being underused in Canada**

- PRO = Bernard Thibault
- CON = Brent Mitchell

Group discussion – Moderator: Peter Leong-Sit

At the conclusion of this session, participants will:

1. Differentiate indications for CRT-P as opposed to CRT-D in 2014 in Canada.
2. Separate populations who will best benefit from CRT-P as opposed to CRT-D.

**3:15 THE DEBATERS – ICD testing in primary prevention pediatric patients should continue to be done**

- PRO = Robin Clegg
- CON = Elizabeth Stephenson

Group discussion – Moderator: Sylvia Abadir

At the conclusion of this session, participants will:

1. Argue evidence in favor of and against DFT testing for ICDs.
2. Formulate an opinion based on evidence as to whether DFT testing should be done in pediatric primary prevention patients.

4:00 **Basic Science Applications to Arrhythmia Care**

- Epidemiology, markers and upstream treatment – Paul Dorian
- Targeting ion channels for therapy – David Fedida
- AF in endurance athletes: a model for understanding AF mechanism – Peter Backx

Group discussion – Moderator: Thomas Claydon

At the conclusion of this session, participants will:

1. Identify promising biological markers that may help predict the development of AF in patients.
2. Detect ion channels that may be manipulated for treatment of common arrhythmias.
3. Indicate the causative factors for AF in endurance athletes.

5:15 **ADJOURNMENT**

6:00 **CHRS NETWORKING DINNER &**

**2014 ROYAL COLLEGE MEDAL IN MEDICINE PRESENTATION**

**SATURDAY, September 13, 2014**

7:30 **REGISTRATION AND BREAKFAST**

7:30 **CHRS Executive Meeting** (by invitation only)

8:30 **Ventricular Rhythm Disorders**

- MRI for ARVD – why all the variation? Andrew Crean
- Molecular mechanisms of ARVC - Brenda Gerull
- Role of pH as a trigger for LQT3 and BrS – Peter Ruben
- Role of late INa in arrhythmia and contractile dysfunction - Robert Dumaine

At the conclusion of this session, participants will:

1. Identify causes for variation in MRI interpretation for ARVD.
2. Identify the molecular mechanisms known presently for ARVD.
3. Examine the relationship between pH and triggers for LQT syndrome.
4. Establish the role of the late sodium channel in arrhythmogenesis.

10:30 **NUTRITION BREAK**

10:45 **THE DEBATERS – Implantable cardiac monitors should be implanted much more frequently for AF management (ablation, anticoagulation)**

- PRO = Damian Redfearn
- CON = Peter Guerra

Group discussion – moderator: Christopher Lane

At the conclusion of this session, participants will:

1. Consider the positive and negative implications for use of ILR technology for monitoring patients with AF.

10:45 **Regulation of cardiac delayed rectifier potassium channels**

- Determinants of hERG channel function and drug binding – Thomas Claydon
- Mechanism of action of a KCNQ1 activator - Harley Kurata

At the conclusion of this session, participants will:

1. Recognize the role of delayed rectifier K channels in arrhythmia generation.
2. Classify potential clinical utility of KCNQ1 channel activators.

11:45 **Insights Into Congenital Arrhythmias**

- Using iPSC-derived cardiomyocytes to diagnose and treat inherited arrhythmias – Glen Tibbits
- Congenital heart block – Robert Hamilton
- Pediatric Clinician Case scenario - Anne Fournier

At the conclusion of this session, participants will:

1. Explore the preparation of stem cells in the investigation of arrhythmia conditions.
2. List the advantages and limitations of stem cells in studying arrhythmias.
3. Outline the clinical spectrum of congenital complete heart block and the current theories underlying this.

12:45 **LUNCH**

1:00 **CHRS Education Committee Meeting** (observers are welcome)

1:30 **CHRS/CIHR Research Proposal Mentorship Meeting**

Moderator: Anthony Tang

At the conclusion of this session, participants will:

1. Introduced clinical research protocols that are currently in development within cardiac electrophysiology in Canada.

1:30 **Allied Health Professional Breakout Meeting**

3:00 **NUTRITION BREAK**

5:30 **ADJOURNMENT**

## SUNDAY, September 14, 2014

7:00 **BREAKFAST**

7:30 **CHRS Device Advisory Committee Meeting** (observers are welcome)

7:30 **CHRS Ablation Committee Meeting** (observers are welcome)

8:30 \*\*\*\*\* **KEYNOTE SPEAKER** \*\*\*\*\*

**Canada and Global Health Service Delivery and Future Challenges**

Anne W. Snowdon

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At the conclusion of this session, participants will:

1. Identify the challenges for health care delivery in Canada within the context of other international health systems.

9:30 **Risky Business : How Do We Risk Stratify for ICDs in Different Arrhythmic Disorders**

- Hypertrophic cardiomyopathy – Andrew Ha
- Brugada syndrome – Girish Nair
- ARVD – Sean Connors
- Muscular dystrophies – Christopher Gray
- Sarcoidosis – Pablo Nery
- Pediatric perspectives: Philippe Chetaille
- Challenging case presentations – Moderator: Vidal Essebag

At the conclusion of this session, participants will:

1. Analyze methods by which to simply and accurately determine the risk for sudden death in congenital cardiomyopathies such as ARVD, HCM, and muscular dystrophies.
2. Analyze methods by which to simply and accurately determine the risk for sudden death in cardiac sarcoidosis.
3. Recognize the difficulties in risk stratification for sudden death using a case based format.

11:30 **CLOSING REMARKS & ADJOURNMENT**