

## 2023 Canadian Hypertension Congress and Young Investigator Forum

**(Day 1) 3:00 – 4:00 pm**

**Opening Plenary - Vascular Signaling in Hypertension and Small Vessel Disease**

**Speaker: Dr. Rhian Touyz**

**Learning Objectives:**

1. Interpret the concept of oxidative stress and how this causes vascular injury in the context of hypertension.
2. Consider small vessel disease as a multisystem disorder.
3. Reflect on the importance of small vessel disease and hypertension in vascular dementia.

**(Day 2) 10:00 – 11:00 am**

**Topic #1: Orthostatic Hypotension and Hypertension**

**Speaker: Dr. Paula Harvey**

**Learning Objectives:**

1. Describe prevalence of orthostatic hypotension and related morbidity and mortality in patients.
2. Recognize the pattern of symptoms commonly associated with this condition.
3. Apply non-drug and if necessary drug treatments to reduce symptoms and improve safety and QoL.

**(Day 2) 10:00 – 11:00 am**

**Topic #2: The Impact of Heat on Cardiovascular Disease**

**Speaker: Dr. Daniel Gagnon**

**Learning Objectives:**

1. Recognize the health risks of climate change.
2. Recognize the health risks of extreme heat.
3. Describe the pathophysiology mediating heat-related cardiovascular risk.

**(Day 2) 10:00 – 11:00 am**

**Topic #3: Molecular Underpinnings of Hypertensive Pregnancy Disorders**

**Speaker: Dr. Mariane Bertagnolli**

**Learning Objectives:**

1. Assess the pathophysiology of pre-eclampsia.
2. Describe antiangiogenic mechanisms in pre-eclampsia.
3. Identify new therapies aimed at improving placental vascularization.

**(Day 2) 12:30 – 1:30 pm**

**Topic #4: Non-Pharmacologic Approaches to Hypertension Management**

**Speaker: Dr. Simon Bacon**

**Learning Objectives:**

1. Describe what effects health behaviours have on blood pressure.
2. Analyse what behavioural interventions help to improve blood pressure.
3. Identify ways in which behaviour change can be enacted over the long-term.

**(Day 2) 12:30 – 1:30 pm**

**Topic #5: Sex and Gender in Hypertension**

**Speaker: Dr. Sofia Ahmed**

**Learning Objectives:**

1. Discuss science and principles of sex and gender.
2. Identify why scientists should include sex and gender factors into all aspects of blood pressure research.
3. Consider sex and gender into care of the person living with hypertension.

**(Day 2) 12:30 – 1:30 pm**

**Topic #6: Sex Difference in Diabetic Kidney Disease: Role of Angiotensin Type 2 Receptor (AT<sub>2</sub>R)**

**Speaker: Dr. Shaoling Zhang**

**Learning Objectives:**

1. Develop a better understanding of how sex is involved in diabetic kidney disease (DKD).
2. Define the role of angiotensin type 2 receptor (AT<sub>2</sub>R) underlying evident sex differences in DKD.
3. Predict whether AT<sub>2</sub>R acts as a potential therapeutic target in a sex-specific manner on DKD clinical practice in the foreseeable future.

**(Day 2) 1:45 – 2:45 pm**

**Topic #7: The Accurate Measurement of Blood Pressure**

**Speaker: Dr. Andre Michaud**

**Learning Objectives:**

1. Cite three recommendations for carrying out a standardized office blood pressure measurement.
2. Identify a source of inaccuracy in blood pressure measurement for each level: patient, device, and procedure.
3. Classify which blood pressure measurement methods to use for the detection and diagnosis of hypertension.

**(Day 2) 1:45 – 2:45 pm**

**Topic #8: Arterial Stiffness: Lessons from Chronic Kidney Disease**

**Speaker: Dr. Mohsen Agharazii**

**Learning Objectives:**

1. Demonstrate the impact of arterial stiffness on arterial blood pressure.
2. Discuss pathways that could accelerate arterial stiffness.
3. Discuss numerical models of vascular tree.

**(Day 2) 1:45 – 2:45 pm**

**Topic #9: Cardio-respiratory Risk in Acute and Long COVID-19**

**Speaker: Dr. Simon Rousseau**

**Learning Objectives:**

1. Assess the role played by biobanks in contributing to health research.
2. Determine machine learning algorithms to exploit large and complex datasets.
3. Identify molecular factors associated with vascular dysfunctions in COVID-19.