

Kim Connelly, MD

Biography

Dr. Kim Connelly is a Cardiologist and Scientist who is both nationally recognized as an expert in echocardiography, cardiovascular MRI and the impact of diabetes upon cardiac function and ventricular remodeling. His work has been recognized evident by winning the “Young Investigator of the Year Award” by the Canadian Cardiovascular Society, an Early Researcher Award in 2014, and a CIHR New Investigator award in 2014.

Dr. Connelly runs a basic research laboratory at the Keenan Research Centre at St. Michael’s Hospital where he focuses upon basic mechanisms of disease – primarily around the role of pathological extracellular matrix accumulation and the pro-sclerotic cytokine transforming growth factor beta, with a focus upon translating discoveries into therapies in humans. He developed the first hemodynamically validated model of diabetes induced HFpEF. He is the Director of the Krembil Stem Cell Facility at St. Michael’s Hospital and uses regenerative cell based therapies to improve cardiac and renal dysfunction as a result of diabetes. He has research support from the HSF of Canada, CIHR and CFI along with significant research support from the pharmaceutical industry. His work has been published in journals such as the NEJM, Circulation, Journal of the American college of Cardiology, Circulation Research, Diabetes, Cell Metabolism and Lancet Endocrinology and Diabetes. His H index is 41, and I index of 125.

Dr. Connelly is immediate past president of the Canadian Society of Cardiac Magnetic resonance imaging. He runs a translational imaging laboratory and uses hyperpolarized C13 metabolic imaging to understand metabolism in the human heart in real time, as well as CMR to understand the impact of exercise upon cardiac remodeling. He was senior author of the EMPA HEART study along with Dr. Verma and Zinman to assess the mechanism by which the SGLT2i empagliflozin provided cardiac protection in patients with type 2 DM. Finally, he was past section lead of 2018 macrovascular complications section for the Diabetes Canada Clinical practice updates and is current chair of the Canadian Cardiovascular Society guidelines.