

Jayan Nagendran

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Clinical & Academic Offices:

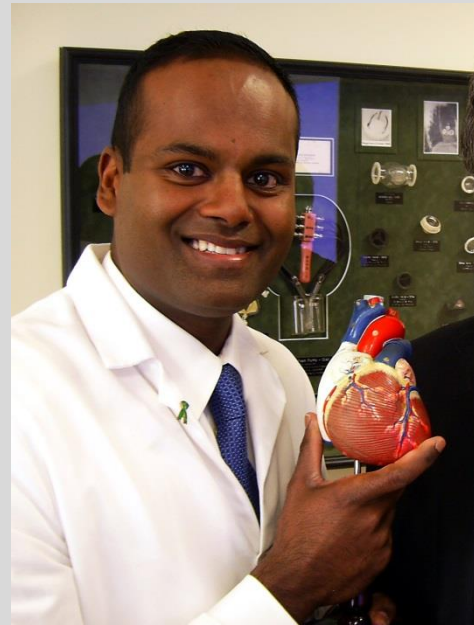
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Professional Overview:

Dr. Jayan Nagendran is from Edmonton, Alberta. He attended undergraduate and medical school at the University of Alberta and joined the residency program in Cardiac Surgery at the University of Alberta in 2001. During his residency Dr. Jayan Nagendran completed a PhD in Experimental Medicine, examining the transcriptional and metabolic shifts that occur during right ventricular hypertrophy, with the potential of ventricular-specific therapeutic targeting of the hypertrophied right ventricle in disease. In 2009, he became a Fellow of the Royal College of Surgeons of Canada. Dr. Jayan Nagendran sub-specialized in cardiothoracic transplantation surgery at Stanford University from 2009 to 2011.

As a clinical Cardiothoracic Transplant Surgeon at the Mazankowski Alberta Heart Institute, Dr. Jayan Nagendran has a direct impact on vulnerable patients with end-stage chronic lung disease. As a young investigator and being an Assistant Professor in the Department of Surgery, he has shifted his focus to ex-vivo thoracic organ perfusion in transplantation. Dr. Jayan Nagendran is keenly interested in transplantation, and improvement of donor organ function. In July 2011, Dr. Jayan Nagendran became the Director of Research for the Division of Cardiac Surgery. He has a very translational

approach to academia with his lab focusing on ex-vivo Jeevan Nagendran o organ repair and preservation for thoracic transplantation, as well as transplant metabolism. Dr. Jayan Nagendgran's focus is to lead in ex-vivo organ preservation to help patients with Edmonton's geographic isolation and adopt a technology that is portable to minimize donor ischemic time.

In addition, Dr. Jayan Nagendgran has joined laboratories with fellow translational Cardiothoracic Surgeon-Scientist, Dr. Darren Freed, to create Canada's first ex-vivo multi-organ perfusion laboratory. Their lab performs large animal (pig) organ perfusions on lungs, hearts, livers, and kidneys to determine optimal perfusates and novel therapeutic strategies to improve the quality of donor organs, allowing for increased rates of donor organ utilization for transplantation. Dr. Jayan Nagendgran and Dr. Darren Freed have started the only portable clinical ex-vivo lung perfusion program in Canada with 23 successful clinical ex-vivo lung perfusions to date.

Industry Relationships:

- VP and Director of Clinical Investigation, Tevosol Inc

Current Research Interests:

- Ex-Vivo Organ Perfusion
- Heart and Lung Transplantation

Publications:

1. **Nagendran J**, Moore M, Norris C, Khani-Hanjani A, Graham M, Freed D, **Nagendran J**. The varying effects of obesity and morbid obesity on outcomes following cardiac transplantation. *Int J Obesity*. 2016 Apr; 40(4):721-4.
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5. Luc JG, **Nagendran J**. The evolving potential for pediatric ex vivo lung perfusion. *Pediatr Transplant*. 2016 Feb; 20(1):13-22.
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11. Bozso SJ, Freed DH, **Nagendran J**. Successful Transplantation of Extended Criteria Lungs After Prolonged Ex-Vivo Lung Perfusion Performed on a Portable Device. *Transpl Int*. 2015 Feb;28(2):248-50.
12. Bozso SJ, Vasanthan V, Freed DH, **Nagendran J**. Lung Transplantation from Donors after Circulatory Death using Portable Ex-Vivo Lung Perfusion. *Can Resp J*. 2015 Jan-Feb;22(1):47-51.
13. Luc JG, Bozso SJ, Freed DH, **Nagendran J**. Successful Repair of DCD Lungs with Large Pulmonary Embolus Using the Lung OCS System for Ex-Vivo Thrombolysis and Subsequent Clinical Transplantation. *Transplantation*. 2015 Jan 15;99(1):1-2.
14. van Diepen S, Graham MM, **Nagendran J**, Norris CM. Predicting cardiovascular intensive care unit readmission after cardiac surgery: derivation and validation of the Alberta Provincial Project for Outcomes Assessment in Coronary Heart Disease (APPROACH) cardiovascular intensive care unit clinical prediction model from a registry cohort of 10,799 surgical cases. *Crit Care*. 2014 Nov;18(6):651-5.
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