

# 2023 UBC CAPP Pilot Project Recipients



Dr. Thomas Roston

## **Cardiac Rehabilitation to Improve Metabolic Health in Hypertrophic Cardiomyopathy**

This research project investigates the benefits of cardiac rehabilitation (CR) in individuals with hypertrophic cardiomyopathy (HCM) and metabolic syndrome. Historically, patients with HCM were advised to avoid physical activity due to concerns about triggering sudden cardiac events. However, we now recognize that limiting physical activity can cause metabolic issues like obesity, hypertension, and diabetes.

The pilot study aims to assess if supervised exercise classes, as part of cardiac rehabilitation (CR), can improve metabolic health markers in patients with HCM and metabolic syndrome, while enhancing exercise habits, cardiorespiratory fitness, and psychological well-being. The pilot study collects preliminary data to guide the development of a larger, multicenter randomized controlled trial that will evaluate the potential of cardiac rehabilitation (CR) to reduce HCM-related symptoms and adverse outcomes.



Dr. Nathaniel Moulson

## **Virtual Cardiac Rehabilitation for Rural Cardiac Populations**

This project examines the critical role of cardiac rehabilitation (CR) in reducing hospital readmissions, secondary events, and premature mortality in cardiovascular disease patients. Despite its proven benefits, only a fraction of eligible patients receives CR. Individuals of low socioeconomic status and those residing in rural areas often do not have access to and do not benefit from cardiac rehabilitation (CR) programs. Virtual CR (VCR) presents a promising solution to enhance participation rates and outcomes while eliminating barriers to care. This pilot study aims to evaluate the feasibility and effectiveness of VCR in patients with cardiovascular disease residing in rural and remote locations without access to facility-based CR. The primary outcome focuses on improvement in exercise capacity, a key marker of reduced cardiovascular risk. Additionally, the study will assess improvements in cardiometabolic profile, physical activity levels, psychosocial stress, symptom control, and quality of life, ensuring comprehensive evaluation of the intervention's impact. The overarching goal is to improve access to CR services, particularly for patients in underserved rural communities, ultimately enhancing cardiovascular care on both local and provincial levels.



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Dr. Richard G. Bennett

## **Early catheter ablation versus antiarrhythmic drug therapy for the initial management of ventricular tachycardia storm; a randomized controlled trial.**

This research project focuses on ventricular tachycardia (VT) storm, a critical arrhythmic emergency characterized by multiple VT episodes within 24 hours or incessant VT refractory to medical interventions. VT storm significantly impacts patients' quality of life, increases the risk of implantable cardioverter defibrillator shocks, hospitalizations, and mortality. While current standard care involves antiarrhythmic drugs and catheter ablation, observational data suggests that VT storm recurrence rates remain high with medication alone. Recent studies indicate superior outcomes with early catheter ablation compared to standard medical therapy. Building on this, our randomized controlled trial will compare early catheter ablation with initial medical management in patients with structural heart disease and VT storm. We hypothesize that early catheter ablation will lead to improved outcomes, providing valuable insights into the optimal management strategy for VT storm.



Dr. Parvathy Nair

## **Building an interactive functional platform to store echo cases from various centres across Canada; the National Echocardiography Assessment Tool (C-NEAT).**

The 2023 CCS/CSE Training Standards in echocardiography emphasize the importance of competence in echo skills at all expertise levels. These standards require appropriate experience, documented in a logbook with specific case mix requirements, and demonstrate competence through objective assessments.

This innovative educational research proposal aims to create a dynamic platform, the National Echocardiography Assessment Tool (C-NEAT), to compile and analyze echocardiogram cases from multiple centers across Canada. C-NEAT will serve as an interactive and centralized resource for clinicians to access a diverse range of echo cases, enhancing their diagnostic skills and knowledge. This platform will facilitate collaboration across Canadian echocardiography training programs, to ensure practitioners of echocardiography attain a high-level diagnostic accuracy and competence in order to provide excellent patient care.



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