The CVRC is an interdisciplinary research center that conducts basic, translational and clinical research related to cardiovascular biology and disease. Our research goals are to discover new knowledge that enhances our understanding of normal cardiovascular function, define novel mechanisms of cardiovascular disease, and to identify and test novel therapies to prevent or reverse the consequences of cardiovascular disease.

**Research Program**

The CVRC performs research has active research programs (NIH supported) in the following general areas:

Mechanisms of cardiac injury: The primary focus of these studies is related to ischemic heart disease that leads to heart failure with reduced ejection fraction.

Hypertrophic cardiomyopathy: These studies involve both genetic and acquired cardiomyopathies that disrupt ventricular function, and, in general lead to heart failure with preserved ejection fraction.

Atrial Fibrillation: These studies explore fundamental aspects of AF induction and perpetuation.

Ventricular arrhythmias: These studies explore novel mechanisms of ventricular rhythm disturbances that lead to sudden cardiac death.

Cell therapy: These studies are exploring novel cell therapies for the treatment of ischemic cardiac injury.

Gene therapy: Together with the Center for Translational Medicine the CVRC is exploring novel gene therapy based treatments for cardiac dysfunction leading to heart failure.

Atherosclerosis: Multiple studies are addressing fundamental aspects of atherosclerosis and its prevention.

Abdominal Aortic Aneurysm: These studies explore mechanisms of AAA in animal models.

Metabolic Syndrome and CVD: Many faculty are exploring fundamental aspects of CVD induction caused by high fat/high sucrose diets and by metabolic syndrome.

Hypertension: These studies focus factors that imitate and cause progression of systemic hypertension.

**Training:**

The CVRC is supported by an NIH T32 training grant. This grant supports pre- and post doctoral fellow.

The CVRC has a mentoring program for all trainees and junior faculty.