Cardiometabolic Diseases

University of Pittsburgh

Are you seeking answers to the challenges of cardiometabolic diseases?

Partner with Pitt investigators in addressing the various facets of cardiometabolic diseases. From early discovery research to real-world evidence generation and clinical trials, Pitt researchers have the expertise, models, and capabilities to advance your research and technology goals.

Research Strengths | Capabilities

Centers and Institutes

Aging Institute

Center for Metabolism and Mitochondrial Medicine

Center for Obesity Medicine

Center for Pediatric Research in Obesity and Metabolism

Pittsburgh Liver Research Center

Trilogue Center for Real-World Evidence

Vascular Medicine Institute

Research Opportunities

Advanced cell and tissue imaging

Biospecimen repository

Cellular bioenergetics and fuel metabolism in vivo

Real-world evidence studies and clinical trials

Multi-site studies via PaTH & PCORnet networks

Measurements of metabolism (e.g., clamps, IVGTTs, stable-isotope tracers, indirect calorimetry, exercise tests)

New Available Technologies

#6477 – Inhibition of MDM2 to prevent cardiomyopathy

#3887 – A Novel small molecule AMP-activated protein kinase (AMPK)

#4815 – Novel furan fatty acids for the treatment of liver disease and dyslipidemias

#6356 – Using ENHO gene therapy to treat cardiometabolic disease

#5722 – Therapy to Prevent Liver Disease Progression in PNPLA3 rs738409: G Variant Carriers with Alcoholic and NAFLD

See Additional Technologies Here.

For partnering interest contact:

Office of Innovation and Entrepreneurship

partner@pitt.edu

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Research Highlights:

Non-Alcoholic Steatohepatitis (NASH) Prevalence Estimation and Risk Stratification using a Multi-System Regional Research Network Database
PI: Kathleen McTigue, Co-PI: Jaideep Behari

The Pitt team, in collaboration with an industry partner, leveraged the PaTH Network and additional PCORnet member sites to test a population-level risk stratification strategy using noninvasive tests of liver fibrosis. Approximately 12 million patient data were analyzed and identified several barriers to a population level noninvasive test screening strategy, suggesting other strategies may need to be pursued.

Behari J et al., Limitations of Noninvasive Tests-Based Population-Level Risk Stratification Strategy for Nonalcoholic Fatty Liver Disease. Dig Dis Sci. 2024:370-383

Efficacy and Safety of Evinacumab in Patients for Severe Hypertriglyerceridemia
PI: Erin Kerhsaw, Co-PI: David Whitcomb

Pitt researchers, in collaboration with other institutions and an industry partner, evaluated the efficacy and safety of a Evinacumab, a monoclonoal antibody that binds to ANGPTL3, in patients with severe hypertriglyceridemia. Although the primary end point of triglyceride reduction did meet the prespecified significance level, the observed safety and triglyceride reduction support further evaluation in larger trials.

Rosenson RS et al. Evinacumab in Severe Hypertriglyceridemia with or without Lipoprotein Lipase Pathway Mutations: a Phase 2 Randomized Trial. Nature Med. 2023. 29, 729-737.

Highlighted Faculty

Kathleen McTigue, MD, MPH, MS

Professor, Medicine, Epidemiology and Clinical & Translational Science
Vice Chair for Real-World Evidence Dept of Medicine
Director, Trilogue Center for Real-World Evidence
PI, PaTH Clinical Research Network

- Research focused on the prevention of chronic disease, with emphasis on obesity, health behaviors, and information technology.
- Leads multi-site collaborations to advance real-world evidence generation and patient-centered health research

Erin Kershaw, MD

Associate Professor, Medicine
Chief, Division of Endocrinology
Endowed Chair for Obesity and Diabetes Research

- Research focused on defining mechanisms that contribute to obesity and associated metabolic diseases, with an emphasis on lipid metabolism, adipocyte-secreted factors, and novel genes/loci
- Leads basic research studies as well as clinical trials investigating new therapies

Jaideep Behari, PhD, MD

Associate Professor, Medicine
Associate Director, Pittsburgh Liver Research Center
Director, Fatty Liver, Obesity, and Wellness Clinic

- Research focused on the pathogenesis of metabolic associated fatty liver disease (MAFLD) and alcoholic liver disease.
- Leads multidisciplinary clinic providing innovative care to patients with MAFLD and overlapping systemic metabolic disorders such as obesity, metabolic syndrome and diabetes mellitus.

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