



MISSISSIPPI CENTER
FOR CLINICAL AND
TRANSLATIONAL RESEARCH

Joey P. Granger, Ph.D.

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for Clinical and Translational Research

Director, Cardiovascular-Renal Research Center

Professor of Physiology and Medicine

Dean, School of Graduate Studies in the Health Sciences

University of Mississippi Medical Center

October 4, 2021



Overview

[The Mississippi Center for Clinical and Translational Research](#) originally consisted of three partner institutions:

- UMMC,
- University of Southern Mississippi,
- Tougaloo College



Our Center is funded by an Institutional Development Award (IDeA)

\$20M Infrastructure for Clinical and Translational Research (IDeA-CTR) grant through the National Institute of General Medicine Sciences.



MCCTR Theme

The major theme of the Mississippi Center for Clinical and Translational Research (MCCTR) is *expanding and strengthening clinical and translational (C/T) research in obesity and cardiometabolic-related diseases in Mississippi.*



Overarching Goals

- (1) to enhance *infrastructure and people resources* required to address C/T research needs in Mississippi;
- (2) to increase focus on *implementation science and clinical and behavioral interventions* to address the disparities associated with cardiometabolic and obesity-related diseases in Mississippi; and
- (3) to *foster and coordinate collaboration* in C/T research within IDeA-CTR/CTSA networks and with partner institutions.

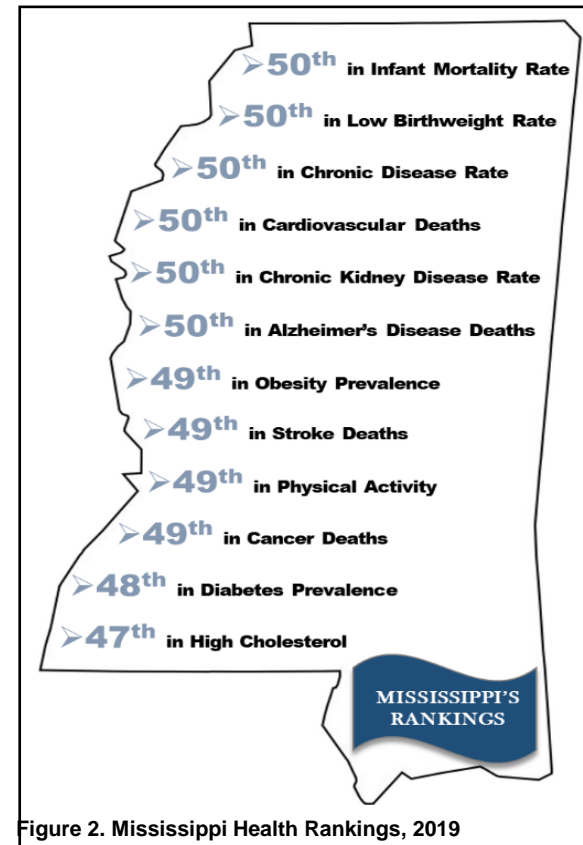
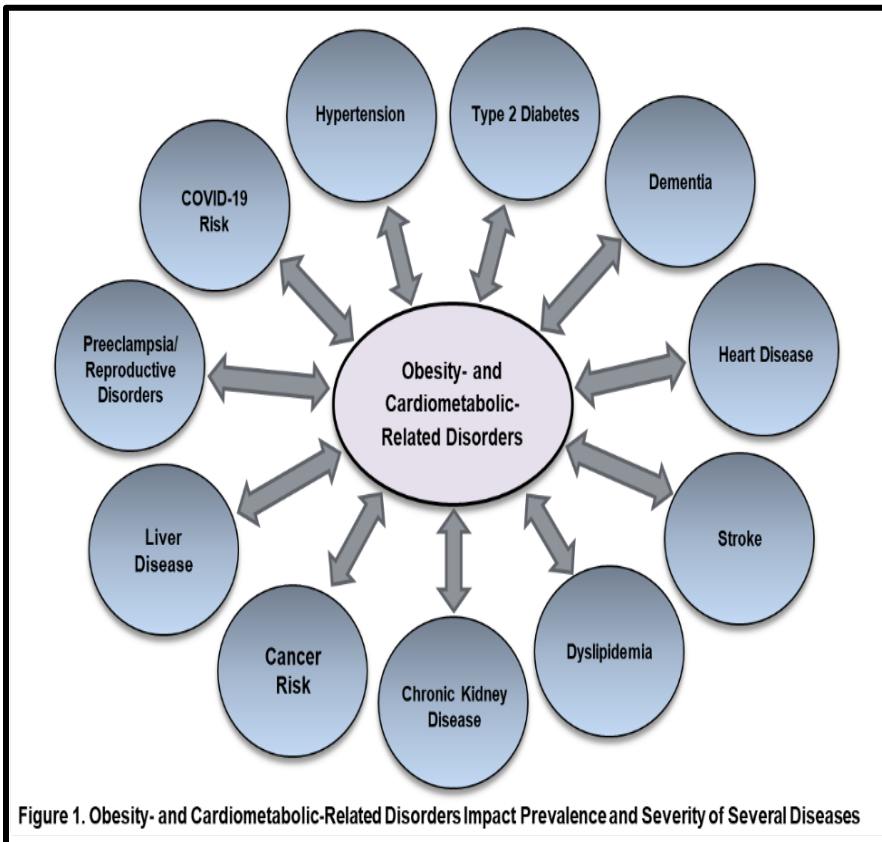
The Specific Aims for the second funding cycle are focused on expansion, enhancement and even greater added value to C/T research in our state emphasizing growth in *rural and health disparities and telemedicine research*.



MCCTR Renewal **August 1, 2021**

Key changes

- **Broader focus, to include cardiometabolic and obesity-related diseases as well as an increased focus on rural health and health disparities**

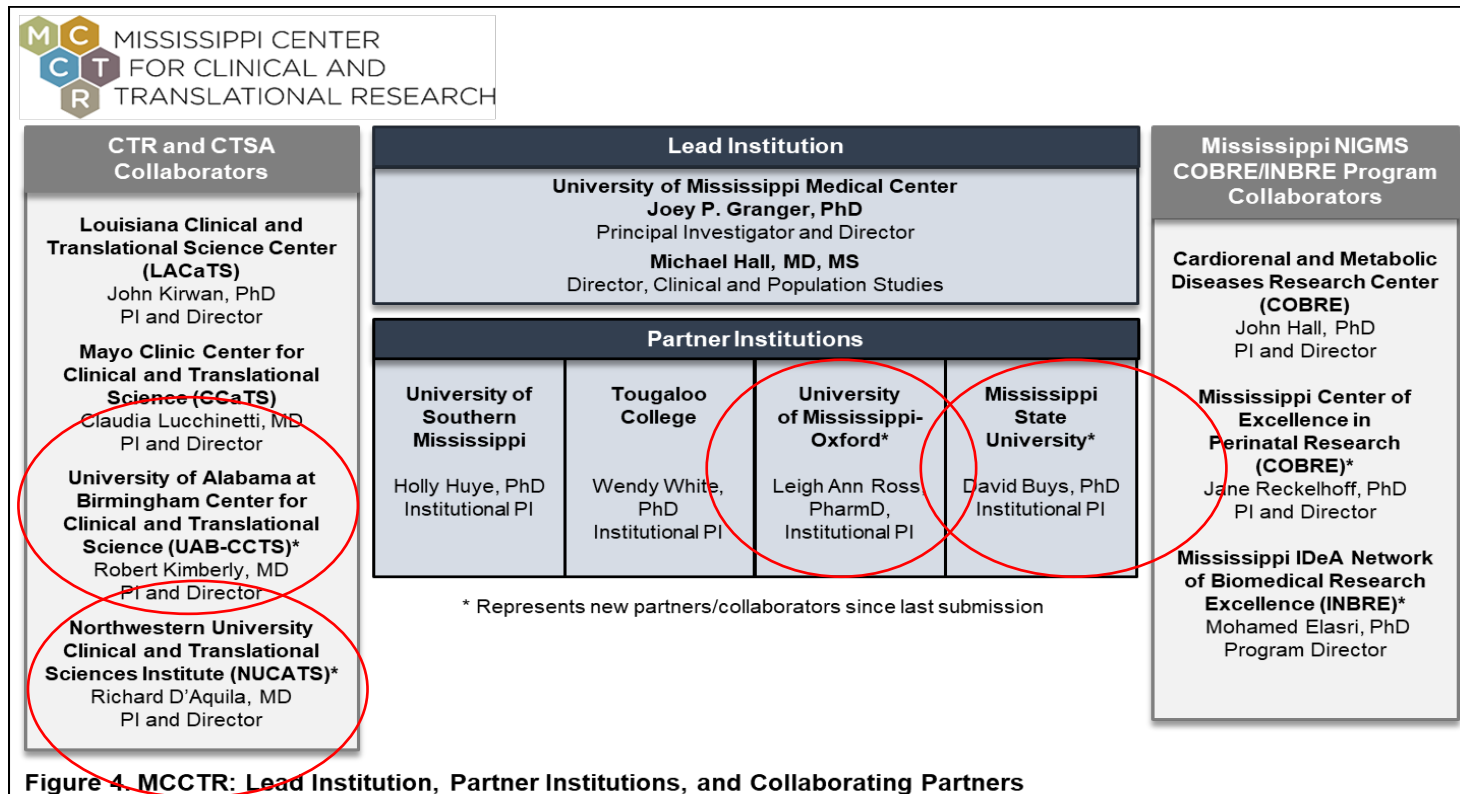




MCCTR Renewal

Key changes in Phase 2

Addition of two new partner institutions: Mississippi State University (including Mississippi State Extension Services) and the University of Mississippi-Oxford as well as 2 new CTSA partners



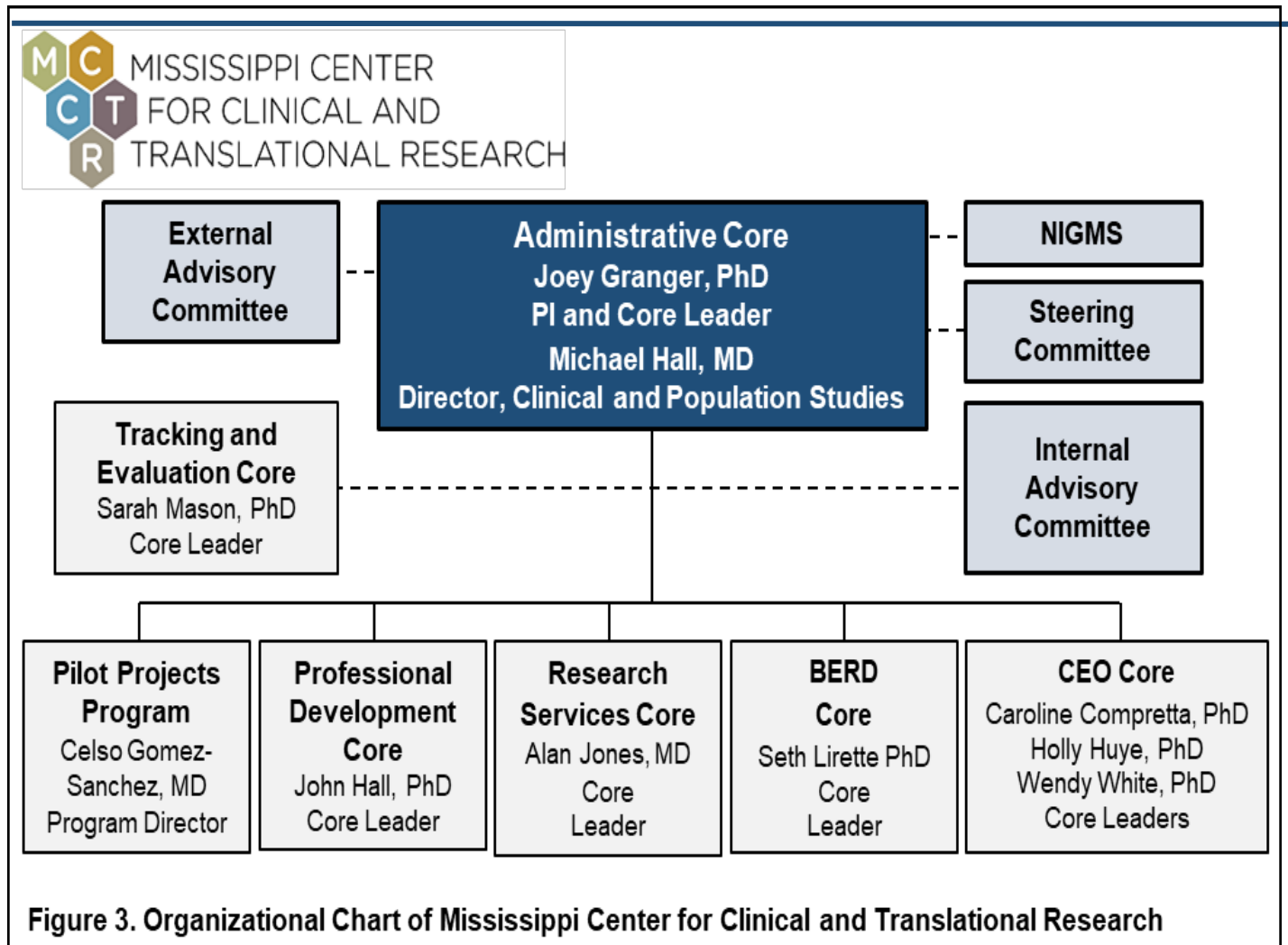


Cores

We have 7 Cores designed to either support investigators/research on our campuses or provide funding/training opportunities to our research community.



MCCTR Cores





Administrative Core Personnel

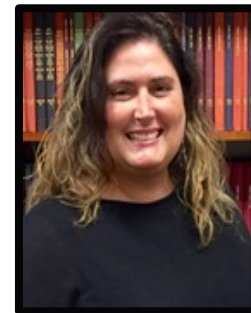
- **Joey Granger, PhD**

Administrative Core Director; Director, MCCTR; Director of Scientific Review Panels; Director, Cardiovascular-Renal Research Center; Dean, School of Graduate Studies in the Health Sciences, UMMC



- **Michael Hall, MD**

Director of Clinical and Population Studies, MCCTR; Associate Professor, Cardiology, UMMC



- **Betsy Davis**

Director of Research Operations, MCCTR

- **Chevonne Robinson, BS**

Project Administrator, MCCTR



Functions and Responsibilities

- **Governance Structure**
- **Policy Development and Implementation**
- **Strategic Planning**
- **Advisory Committees**
 - **External Advisory Committee**
 - **Internal Advisory Committee**
 - **Steering Committee** (David Buys, PhD)
 - **Operations Subcommittee**
- **Dissemination and Coordination**

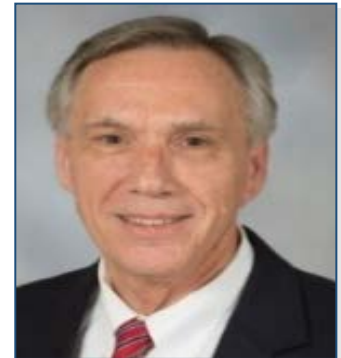


Professional Development Core Personnel

- **John E. Hall, PhD**

Core Leader;

Chair, Department of Physiology;
Director, Cardiorenal and Metabolic
Diseases COBRE, UMMC





Functions and Responsibilities

The Professional Development Core functions to provide a **coordinated program of mentorship and research support** to enhance the **career development** of junior faculty members in Mississippi. Responsibilities include the following:

- Maintain its **Clinical and Translational Research Scholars Program** to help promising junior faculty members **develop into independent investigators** through mentorship, protected time, and research support.
- Provide a **Mentor Academy** to train funded, early- and mid-career faculty to be **more effective research and career mentors**.
- Operate a **Seminar Series** (with MCOR, COBRE, and the Department of Physiology) as a platform for investigators and trainees to **share their research results**, and to promote transdisciplinary and multi-institutional collaboration.



Clinical and Translational Research Scholars(CTRS) Program

- This program supports 7 investigators, **providing 50% protected research time and salary** for up to 4 years(until receipt of extramural support), a **\$40,000 pilot project** from the Pilot Project Program, and formal mentorship.
- **Initial Mentoring Agreement** – Modified from Mayo Clinic CTSA and outlines expectations of mentor and mentee relationship regarding research, education/training, academic skills, career development, personal conduct, progress/evaluation – signed by investigators and mentors
- **Mentoring Plan** – modified from Mayo Clinic CTSA and intended to assist mentee and mentor to 1) explicitly define goals and specific expectations with respect to their mentoring relationship, and 2) ensure alignment of their expectations in order to achieve each other’s goals– signed by mentor and mentee, reviewed by Professional Development Core and Steering Committee, and updated yearly.



Pilot Projects Program

Celso E. Gomez-Sanchez, MD, FACP, FAHA

Pilot Projects Program Director
and Professor of Medicine





Functions and Responsibilities

Designed to promote multi-institutional and multi-disciplinary collaboration; ensure equitable and productive distribution of research support across the MCCTR institutions.

Responsibilities are to:

1. Support **pilot projects** that are most likely to lead to extramural funding and sustained independent research; and
2. Increase the **diversity of Mississippi faculty members** who can compete successfully for extramural funding.



Pilot Project Program

- The program provides a **\$40,000 pilot grant** to support the research of a young investigator. Salary is not included. These grants are for 1 years' time, and we can fund up to 8 annually.
- Letter of intent and grant deadline in January and July of each year



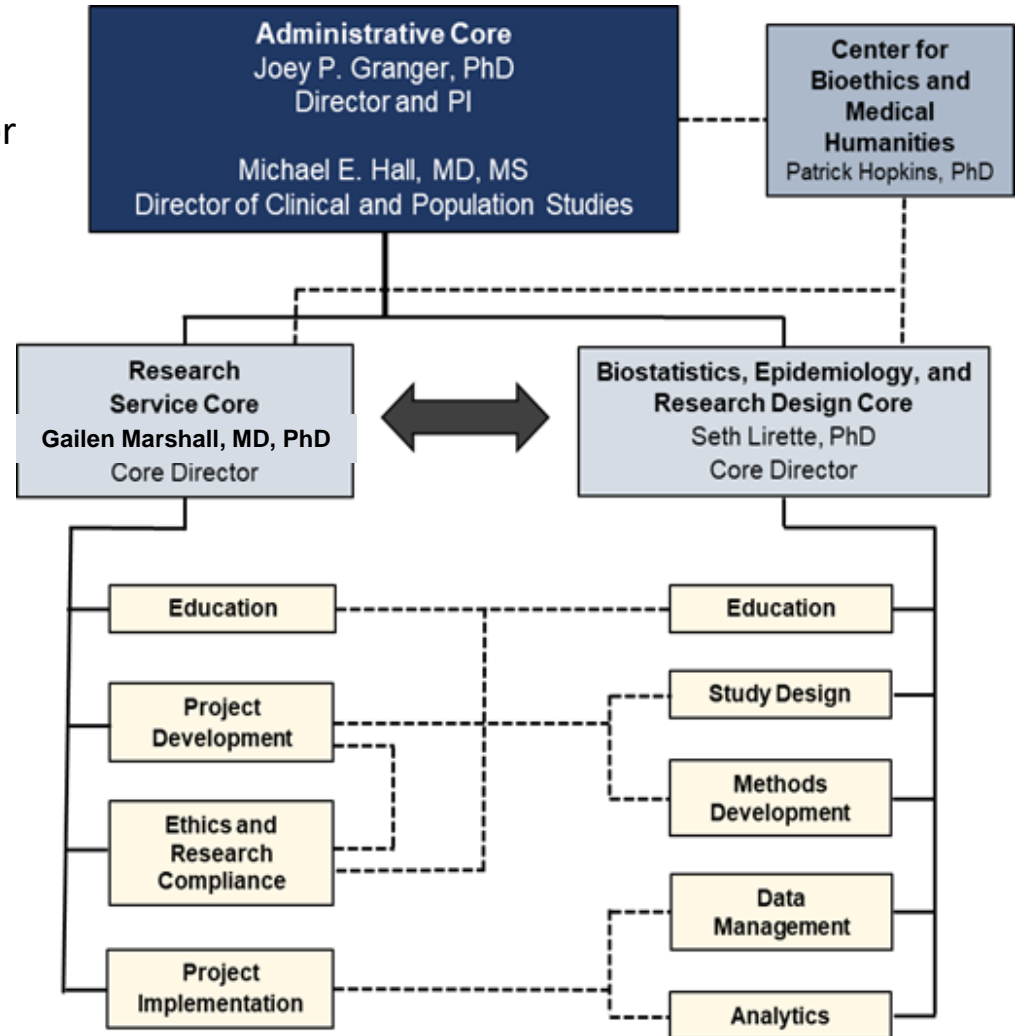
Application Process

- **Letter of Intent** required for permission to submit a proposal.
- Meet with BERD, Administrative, and Research Services **cores**.
- Submission of the proposal.
- **Review** by a committee of experts.
- **Recommendations** to the Steering Committee, and then to the External Advisory Committee.
- Forwarded to **NIGMS** for review.
- Notification of award.
- **Quarterly progress reports** and one-on-one follow-up with investigators as needed.



Research Services Core (RSC)

- **Gailen Marshall, MD, PhD**
Research Services Core Director; Professor and Chief of Allergy and Immunology, Department of Medicine, UMMC





Functions and Responsibilities

The Research Services Core trains and assists investigators in key areas of research development and implementation, including:

- IRB submission assistance;
- Research training orientation;
- Study guidance for protocol implementation;
- Study setup;
- Data collection tools;
- Compliance management;
- Quality management; and
- Research coordination services.



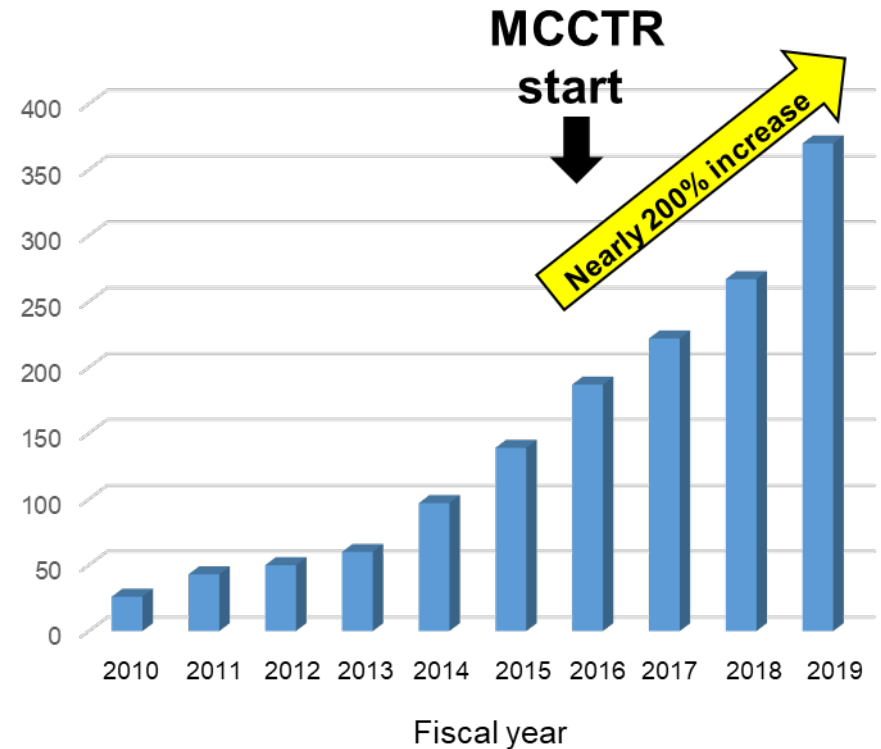
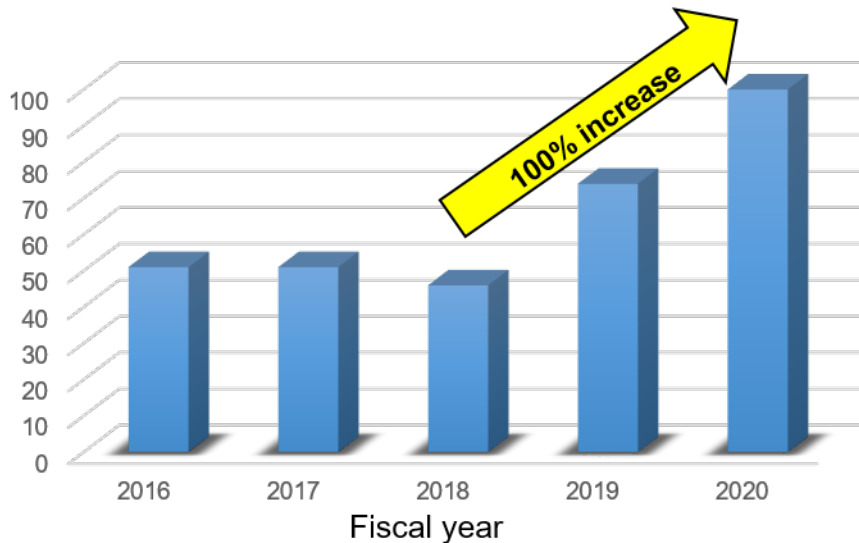
RSC and Clinical Research Support Program (CRSP)

- **CRSP**- Centralized multidisciplinary team of research nurses, research coordinators, regulatory specialists, and study monitors who support the design and conduct of clinical and translational research.
- CRSP services are available across the research spectrum and include protocol and budget development, regulatory support, participant screening/enrollment, specimen processing, and clinical study project management and monitoring



Increasing clinical study productivity through partnerships with OCT & CRSP

Clinical Trials Activated at UMMC have Doubled Since 2016



Research productivity has increased dramatically in clinical departments (Medicine)



New Clinical Research and Trials Unit (CRTU)



- 23,000 square feet
- 22 rooms
- 6th Floor of UMMC Adult Hospital

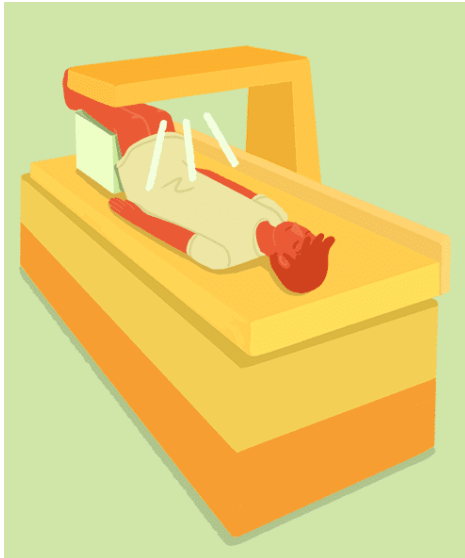




MCCTR-supported clinical equipment



DEXA Scanner



High-Throughput Cell Sorter
Collaborative purchase with UMMC
Office of Sponsored Programs & the
Cardiometabolic and Obesity COBRE

Ambulatory BP monitors

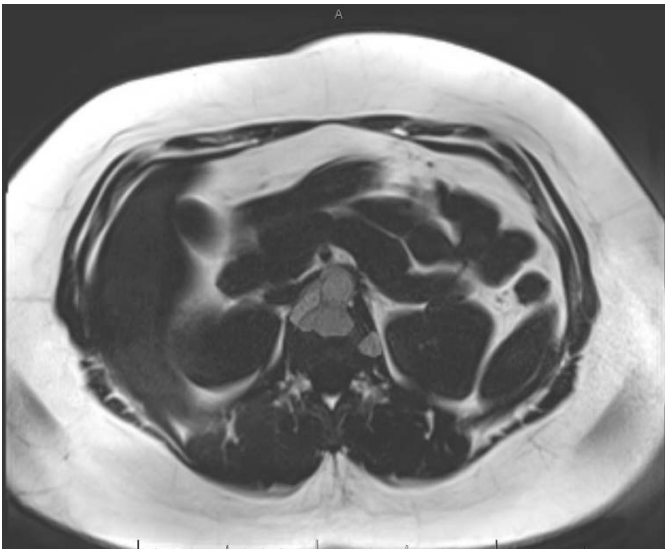




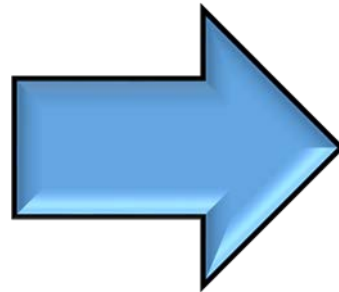
MCCTR “Obesity Biobank”

- MCCTR is collaborating and supporting collection of samples (blood, urine, tissue) from patients before and after bariatric surgery

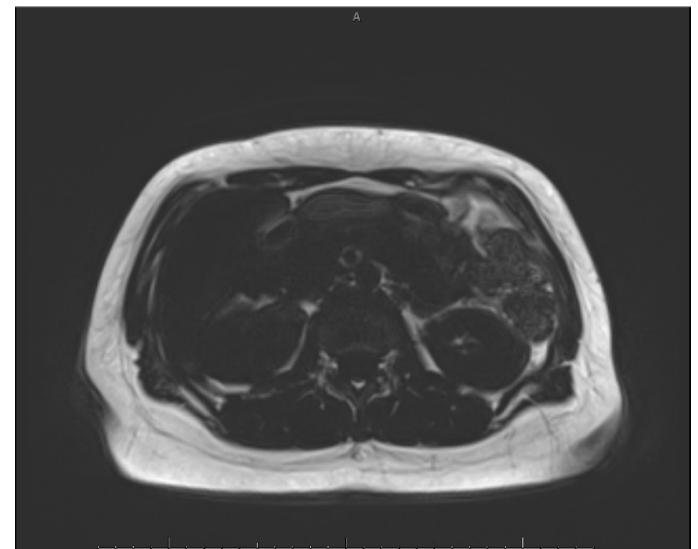
Pre-Vertical Sleeve Gastrectomy



>100 lb weight loss



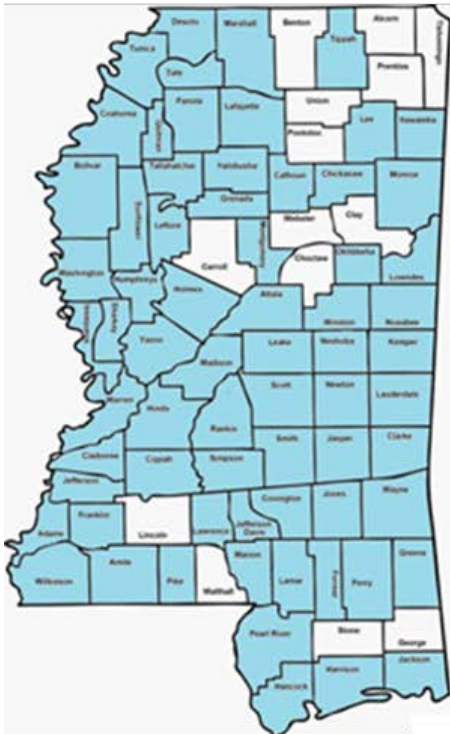
Post-Vertical Sleeve Gastrectomy





Increased access to implement clinical programs through robust partnerships and programs

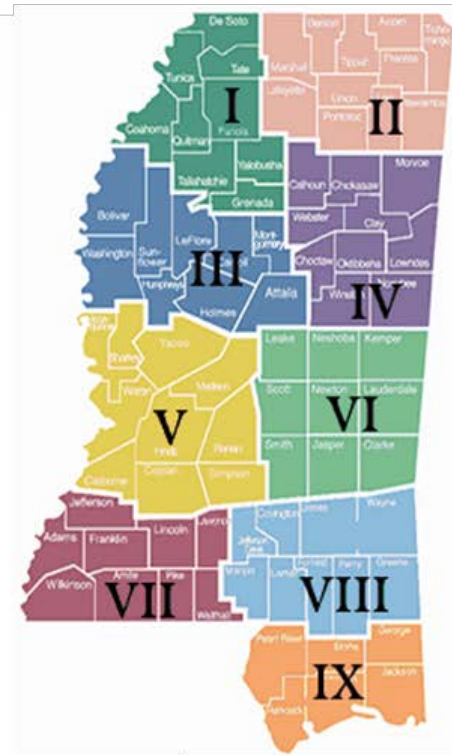
UMMC Center for Telehealth



Mississippi State Extension Services



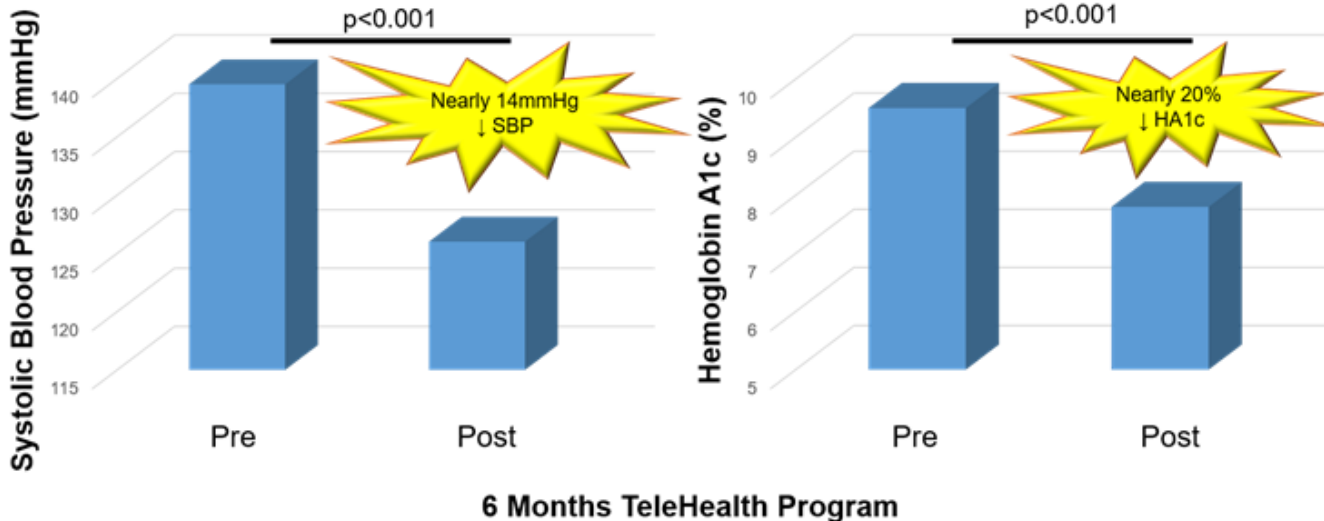
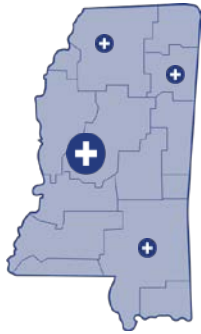
Mississippi State Department of Health





Building our Clinical Research Infrastructure for MS

UMMC Center for Telehealth



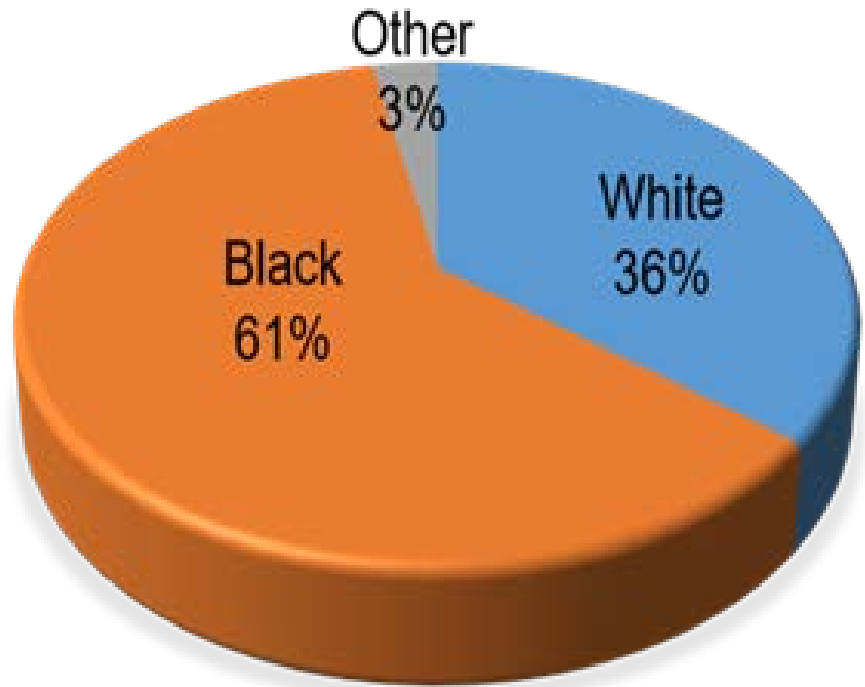
**MCCTR RSC
will support
Telehealth
navigator**



RSC provides support to the MS CEAL Team for COVID-19 Vaccine Trial(s)

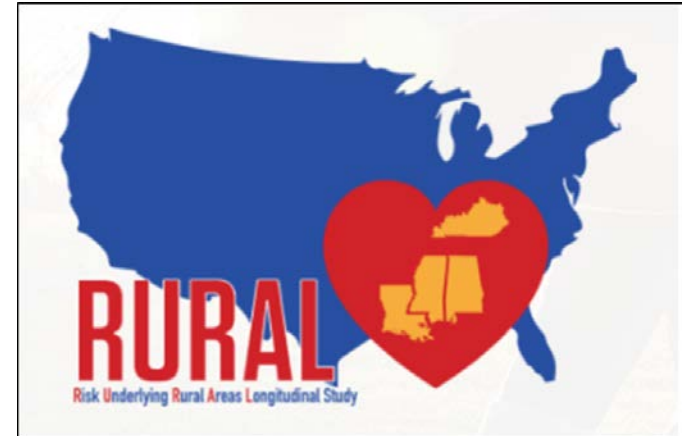


Active Enrolled Clinical Study Participants
by Race at UMMC





Facilitating epidemiologic study access for early stage investigators



Cohort Study Navigator will facilitate new investigator participation in robust cohort studies

- Early investigator involvement has been limited due to lack of experience with processes (manuscript and ancillary study development)
- Data acquisition in collaboration with BERD Core

MCCTR

Biostatistics, Epidemiology, and Research Design (BERD) Core



Members



Seth Lirette
BERD Core Director
Assistant Professor
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Bill Hillegass
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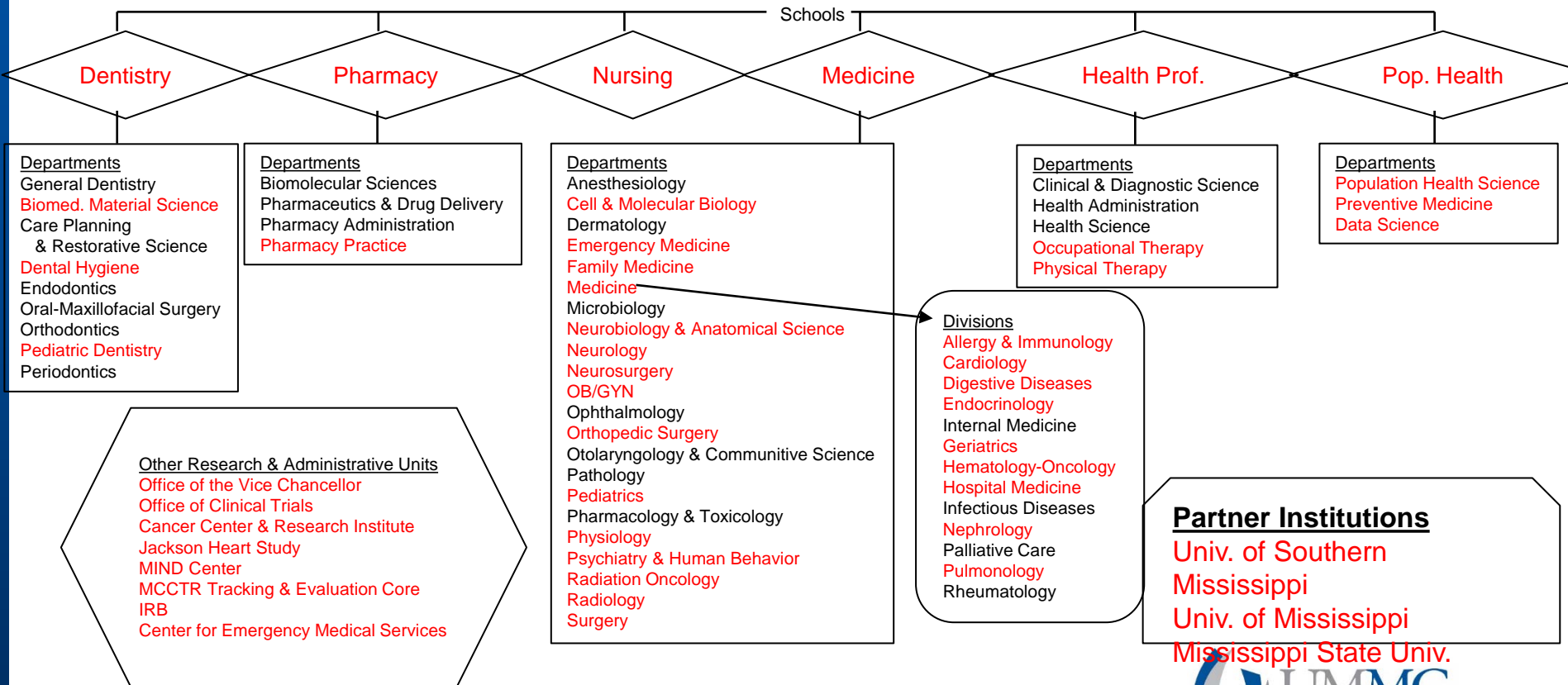
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Sheeba Ogirala
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Units Served



Services

Biostatistics and Data Science Methods

Epidemiology

Meta-Analyses/Cost-Effectiveness Analysis

Research Design

Grant Prep, Submission, and Support

REDCap Design and Deployment

Full Data Analytic Support

Manuscript Support



Biostatistics, Epidemiology and Research Design (BERD) Core

Thanks!!



Community Engagement and Outreach Core

Caroline Compretta, PhD
Co-Director, CEO Core
University of Mississippi Medical Center



CEO Core Co-Directors

- **Caroline Compretta, PhD**
Associate Professor of Preventive Medicine
Center for Bioethics and Medical Humanities
CEAL PI, UMMC
- **Wendy White, PhD**
Principle Investigator and
Director of Jackson Heart Study
Undergraduate Training &
Education Center, Tougaloo College
- **Holly Huye, PhD**
Associate Professor of
Nutrition and Food Systems, USM



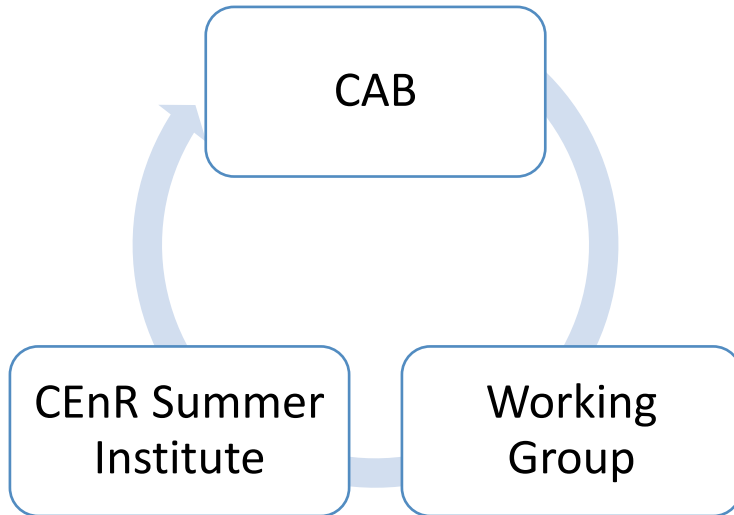


CEO Core Goal

- The CEO Core is committed to including community perspectives in research to improve cardiometabolic health outcomes in Mississippi.
- To reach this goal, the CEO Core provides training in community-engaged research (CEnR) principles for researchers, practitioners, and community members from across Mississippi while also offering support and networking opportunities to conduct CEnR studies.



CEO Core Objectives



- The CEO Core promotes and supports CEnR to create sustainable partnerships that address obesity and other chronic diseases in Mississippi
- Training and development opportunities



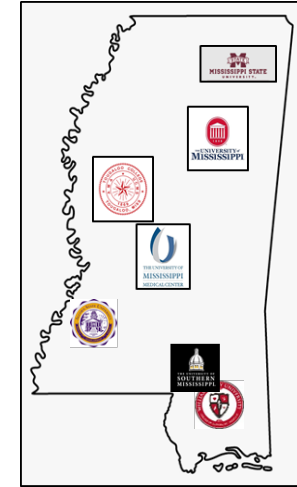
Community Advisory Board

- An essential component of the CEO Core is our Community Advisory Board (CAB).
- The CAB provides valuable input on faculty research projects and keeps the Core informed of community needs.
- Meeting Format:
 - Quarterly meetings over the lunch hour
 - In-person and Virtual
 - Guest speakers from working group or invited researcher
 - CAB provides feedback and input on projects presented
 - CAB participates in review of pilot project proposals

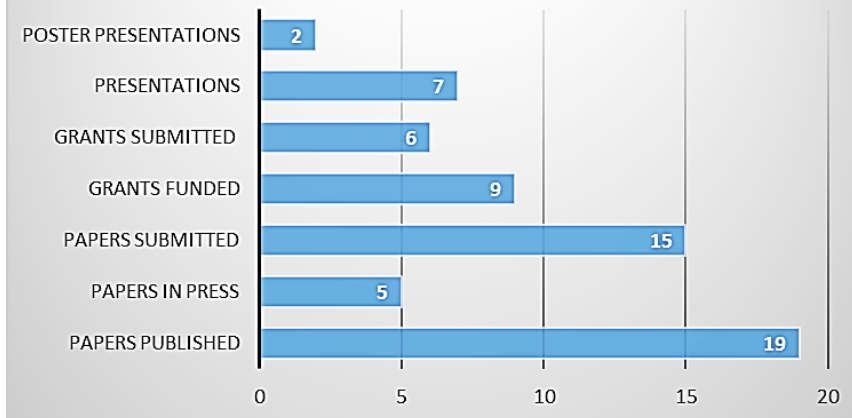


Working Group

- Monthly meetings to propose and develop manuscripts related to community-engaged research.
- Summer Institute alumni are invited to join the Working Group.
- **UPSWING**
 - Bi-weekly meetings focusing on manuscript and professional development.



Working Group Productivity





CEnR Summer Institute

- Purpose

- To train junior faculty from Mississippi's institutions of higher learning in CEnR principles to address cardiometabolic-related disease and racial and ethnic health disparities that impact the lives of Mississippians.

2017	2018	2019	2020	2021
<ul style="list-style-type: none">• 10 junior investigators• 4 institutions• 10 disciplines	<ul style="list-style-type: none">• 10 junior investigators• 5 institutions• 7 disciplines	<ul style="list-style-type: none">• 10 junior investigators• 6 institutions• 7 disciplines	<ul style="list-style-type: none">• 9 junior investigators• 4 institutions• 8 disciplines	<ul style="list-style-type: none">• 9 junior investigators• 5 institutions• 8 disciplines



Future Directions

- Statewide Community/Academic/Clinic Collaborative Network
 - Mississippi State University
 - Mississippi State Extension Service
 - Community Health Center Association of Mississippi
 - 21 Federally Qualified Health Centers
 - Mississippi Department of Health
 - Office of Preventive Health and Health Equity
 - Tougaloo College
 - Numerous community-based organizational partners
- Practice-Based Research Network
- Collaborative research infrastructure and support
- Expansion of CAB

Questions??

MCCTR Website

<http://www.umc.edu/mcctr>



Translate your Interests in Clinical and Population Research

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 [@UMMC_MCCTR](https://www.instagram.com/UMMC_MCCTR)

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For more information on the MCCTR, visit our website [here](http://www.umc.edu/mcctr).