### NORTH CAROLINA CENTRAL UNIVERSITY



### SHARED RESEARCH AND TRAINING RESOURCES

The mission of North Carolina Central University's (NCCU) Research Core is to transform communities by responding to the needs of those communities we serve. NCCU is committed to diversity and addressing health disparities to achieve health equity for all. NCCU offers resources and state-of-theart shared research facilities for NCCU scientists and researchers. These resources are housed and administered throughout campus.

Shared resources include Clinical Translational Research, Pre-Clinical And Analytical Science, Workforce Development and Training, and Community and Population Science, among others. These shared resources are supported by our multi-disciplinary faculty, departments, institutes, and centers.

The research cores are available to investigators, both within and outside NCCU, for a fee-for-service to all or as a collaboration.

## **NCCU RESEARCH CORES**

### PRE-CLINICAL & ANALYTIC SCIENCE

- HTS & Drug Discovery Core
- Cellular and Molecular Analysis Core
- Zebrafish Core
- Rodent Behavior Core
- In Vivo Research Core
- Lifespan Biology Core

### **CLINICAL & TRANSLATIONAL RESEARCH**

- Implementation Science
- Communication Disorders
- Mobile Health Outreach
- Trauma-informed Care
- Mental Health
- Clinical Care Management

## COMMUNITY/POPULATION HEALTH SCIENCE

- Outreach/Community
   Engagement
- Population & Social Health
   Equity Core (HOPE & ACCORD)
- Telehealth
- Mind, Body, Spirit/Soul (MBS)

## COMMUNICATION AND HEALTH LITERACY

- Communication and Messaging Core
- mHealth Technology
- Health Informatics
- Ethno-dramas

#### **SPECIAL POPULATIONS**

- Aging Health
- Vulnerable Populations
- Juvenile Justice
- Rural Health
- Indigenous Population Health

# BIOSTATISTICS & DATA MANAGEMENT

- Analytic Data Management
- Biostatistics and Decisional Science
- Computational Chemistry

# ADMINISTRATION CORE RESEARCH COMPLIANCE

- Research Compliance
- Technology Transfer
- Entrepreneurship

## WORKFORCE DEVELOPMENT AND TRAINING

- Fab Lab
- BRITE futures
- Mentorship
- Clinical Research Sciences

## **NCCU RESEARCH CORE FACILITIES & RESOURCES: HIGHLIGHTS**

### CLINICAL & TRANSLATIONAL RESEARCH

Clinical & Translational Research Core is a collaboration between Nursing, Public Health Education, Social Work, and Communication Disorders

- Psychosocial and clinical health disparities research
- Evidence-based practice and clinical education integration
- Bioanalytical Research Laboratory in New Nursing Building:
  - Freezer and refrigerator sample storage
  - Body composition, hemoglobin A1C, and lipids panel analyzers
  - Centrifuge for serum analyses
  - Vital signs and phlebotomy

## **HTS & Drug Discovery Core**

## HTS & Drug Discovery Core Facility









### PRE-CLINICAL & ANALYTIC SCIENCE

- **Animal Resources Complex** (ARC)
- **Rodent Models**
- Diagnostic and Molecular Histopathology
- Microscopy
- Genomics and zebrafish genetic models
- Intracellular Calcium Imaging System

- Cell Culture and **Proteomics Facility**
- **Cell Bioenergetics**
- Phenotypic Screening
- Computational Chemistry and Molecular modeling
- Biostatistics and **Bioinformatics**
- Zebrafish Service

#### COMMUNITY OUTREACH AND ENGAGEMENT

Computational Chemistry

- NCCU has strong relationships and collaborative partnerships with many communities locally and statewide, to address health disparities and achieve health equity.
- Innovative approaches are being used and tested including a successful Ethno-drama series.
- Several community outreach and engagement programs exists and focus on COVID-19, cancer prevention, chronic illness management, and various prevention efforts targeting primary, secondary, and tertiary prevention across the lifespan.
- NCCU is home to several community outreach programs including OUTREACH4HEALTH (OR4H), HOPE, ACCORD, MBS (Mind, Body, Spirit/Soul), among others.

#### **NCCU Fab Lab**

## **WORKFORCE DEVELOPMENT & TRAINING**

The NCCU Fab Lab is a digital prototyping platform for innovation and invention, providing stimulus for computational learning and local entrepreneurship. CLICK TO LEARN MORE ABOUT NCCU'S FAB LAB

**BRITE Futures** is the community outreach sector of BRITE:

- BRITE visits (tours of the BRITE facility, conversations with scientists, hands-on STEM activities, and Department of Pharmaceutical Sciences & STEM careers highlights) for middle and high students
- Biotechnology summer camps for high school students
- Workshops for middle and high school teachers

#### **Training and Mentorship Programs**

NCCU has a number of student and faculty training and mentorship programs.

