



**Charles R. Drew University of  
Medicine and Science  
Morphometry & Stereology  
Technology Core Laboratory**

**Personnel**

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**About AXIS**

The vision of Charles R. Drew University of Medicine and Science is to be a leading national resource for conducting clinical and translational research that produces high-quality, cost effective and culturally relevant solutions that improve health and wellness in minority and poor populations. Its translational research center, **Accelerating eXcellence In Science (AXIS)**, creates synergy in research teams and between investigators and the community. AXIS houses experienced and dedicated leadership, a myriad of clinical resources and excellent research consultation services.



**Charles R. Drew University of  
Medicine and Science**

**About CDU**

- Charles R. Drew University of Medicine and Science (CDU) focuses on developing healthcare leaders uniquely poised to provide high-quality medical care and transform the health of underserved communities.
- Founded in the 1960s, CDU is named in honor of Charles R. Drew, a brilliant African-American physician recognized for his research in blood transfusions and preservation.
- CDU is the nation's only co-designated *Historically Black Graduate Institution* and *Hispanic Serving Health Professions School*.
- CDU established the *Mervyn M. Dymally School of Nursing*, the first in the nation dedicated to addressing health inequities.
- CDU also creates tomorrow's health professionals through its K-12 Saturday Science Academy Program.
- Visit CDU online at [www.cdrewu.edu](http://www.cdrewu.edu).

**Technology Core  
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**Visit us online:  
<http://drew-axis.org>**



## Our Mission

The Morphometry and Stereology Laboratory is a service and training laboratory for the faculty, students, and staff of CDU and other interested researchers. The mission of the laboratory is to: 1) teach up-to-date stereology theory and practical morphometric techniques; 2) help design unbiased efficient morphometric studies; 3) train researchers to use the equipment and software available in the laboratory; 4) develop an outreach program for community students to visit a microscopy research laboratory; 5) organize stereology workshops for CDU personnel and other interested researchers.

## Symposia and Workshops

- Inaugural Stereology and its Application in Kidney Disease Symposium
- The 12th American International Society for Stereology Course and Image Analysis Workshop
- The 4th Chinese-American Stereology Workshop

## Training

- Lectures
- Visiting Professorships
- RTRN Webinars

## Our Services

- Teach Stereology theory.
- Help design efficient unbiased morphometric studies.
- Help write grant applications related to morphometric studies.
- Embed tissues in epoxy media for thin section (1- $\mu$ m) light microscopy and transmission electron microscopy.
- Section epoxy tissue blocks for thin section (1- $\mu$ m) light microscopy and transmission electron microscopy.
- Train researchers to embed, section, image, and measure light and electron microscopy specimens.
- Help embed, section, image, and measure pilot study tissues.

## Collaborations

**At CDU:** Theodore Friedman, MD, PhD

**At RTRN:** J. Somponpun PhD, University of Hawaii; Pandu Gangula, PhD, Meharry Medical College; Georges Haddad, PhD, Howard University

**External:** Nosratola Vaziri, MD, University of California



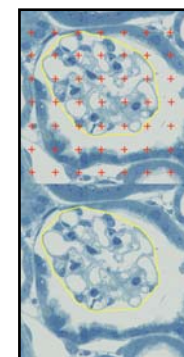
## Our Equipment

- Olympus BX-51 microscope with digital camera, motorized stage, and Visiopharm newCAST stereology software
- Leica RM2255 Rotary Microtome
- Leica EM UC7 ultramicrotome
- Diatome US Diamond Knives
- Osmette A Automatic Osmometer
- Leica KMR3 Glass Knife Maker

## Current Projects

Counting WT-1 positive cells in db/db mouse model of Type 2 Diabetes

Counting podocytes of the kidney using the designed-based Fractionator/Disector principle



## Potential Projects

Morphometric analysis of hypertensive nephrosclerosis in biopsies for African Americans

Morphometric analysis in polycystic kidney disease

Improve immunolabeling method for quantifying tissue structure

