Center for Heart and Vascular Research

Merry L. Lindsey, PhD
Director
Professor & Chair, Cellular & Integrative Physiology
Goal

To bring together multidisciplinary scientists from across departments, colleges, and universities within Nebraska to synergistically facilitate collaborative translational and clinical research that develops the team into an innovative and leading heart and vascular research center and improves the cardiovascular health of our communities.
Mission Statement

Our Center is dedicated to performing cardiac and vascular research that involves:

• Developing multidimensional approaches to examine the mechanisms whereby the heart and vasculature respond to injury or stress;

• Applying the knowledge gained to develop diagnostic tools, test therapeutic strategies, and conduct health services research that prevents, slows, or reverses heart and vascular disease progression;

• Disseminating our results to scientific, medical, and general communities; and

• Educating the next generation of scientists.
Organizational Chart

**Administration Core**
- Cindy Norton
- Kim Kavan
- Charice Bryson
- Sharon McLean

External Advisory Board:
- to be named

Internal Advisory Board:
- Bradley Britigan, MD
- H. Dele Davies, MD
- Jennifer Larsen, MD
- David W. Mercer, MD
- Debra Romberger, MD

**Other Cores**
- Research Core
- Human Subjects Core

**Steering Committee**
- Merry L. Lindsey, PhD
- Daniel R. Anderson, MD, PhD
- B. Timothy Baxter, MD
- Paul Estabrooks, PhD
- Howard Fox, MD
- Michael Moulton, MD
- Bunny Pozehl, RN, PhD
- Tess Kuenstling, PhD
Current Status

Strategic Plan Goals:
1. Develop infrastructure
2. Develop teams & increase research output
3. Promote reputation for and culture of research excellence

Board of Regents approved June 28, 2019
Needs Assessment performed Summer 2019
Initiate programs Fall 2019
Needs Assessment

55 responses (sent to ~95)

Biggest Needs:

- Project Management
- Grant & Manuscript Writing
- $$ to work on projects
- Access to human samples
- Setting up research teams
Pilot grants

- Partnered with Great Plains CTR
- 3 $50K 1 yr pilot grants
- Loosely related to cardiovascular research
- LOI due date: Sept 13
Cobre Submission

Jan 2020 deadline

Training Grant Submissions

Jan 2020 deadline

1. IPMM predoctoral – Rebekah Gundry & Matt Zimmerman co-PIs
2. Vascular Surgery postdoc- B. Tim Baxter and Merry Lindsey co-PIs
Animal Use
Bryan Hackfort, PhD
- Echocardiography\(^1\)
- Mouse Cardiac Surgery
- CV Large Animal Surgery
- Large Animal Imaging
- Animal Plasma & Tissue Biobank

Human Subjects Core
Dan Anderson, MD, PhD
- Clinical studies
  - CV Human Biobank\(^2\)
  - Human Imaging

Big Data
- CardiOmics Program\(^3\)
  Rebekah Gundry, PhD
- Center for Intelligent Health Care
  John Windle, MD

---

\(^1\) Provides ultrasound imaging to non-cardiovascular research (e.g., tumor imaging)
\(^2\) Works with big data efforts from Windle’s group
\(^3\) Works in collaboration with UNMC Mass Spectrometry & Proteomics Core
Grant Writing Boot Camp

Purpose:
1. prepare junior investigators to submit grants

2. select projects for inclusion in the CHVR Cobre application (submission deadline Jan 28, 2020)
## Grant Writing Boot Camp

<table>
<thead>
<tr>
<th>Topics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Generating research questions</td>
</tr>
<tr>
<td>2. Project management- developing deadlines, initial budget development</td>
</tr>
<tr>
<td>3. Performing systematic review and developing evidence tables- to write background and significance sections and develop review article for later submission</td>
</tr>
<tr>
<td>4. Logic modeling (outline approach focused on key questions being asked; develop aims section from questions asked; develop central hypothesis from aims)</td>
</tr>
<tr>
<td>5. Aims page development</td>
</tr>
<tr>
<td>6. Non research plan components (e.g., facilities and equipment list, biosketch, letters of support, authentication, budget and budget justification) Salary Justification Language,</td>
</tr>
<tr>
<td>7. Innovation and mandatory approach components (e.g., rigor, sex as a biological variable)</td>
</tr>
<tr>
<td>8. Vertebrate Animals and Human Subjects</td>
</tr>
<tr>
<td>9. Feedback from reviewers; selection of projects by Nov 19</td>
</tr>
</tbody>
</table>

Weekly Sept 26 to Nov 19
Other projects

Lunch & Learn Series
Develop Research Teams- 3-5 investigators

On our mind:
-How to provide statistics support
-How to organize outcomes research efforts
Tagline: Cardiovascular Breakthroughs for All of Nebraska and Beyond

Vision: The world follows Nebraska in cardiovascular research excellence.
Communications

Email: chvr@unmc.edu

Website: https://www.unmc.edu/chvr/

Linked In, Facebook, Twitter: UNMC_CHVR