UAB Center for Clinical and Translational Science
Director, Robert P. Kimberly, MD

Grant Development Resources
March 3, 2016
CCTS Research Commons
BERD Consultations
March 3, 2016

UAB Center for Clinical and Translational Science

Questions? Email the Research Commons: ccts@uab.edu
www.uab.edu/ccts
What is the CCTS Biostatistics, Epidemiology, and Research Design (BERD) Unit?

• In support of rigorous methodology and scientific reproducibility in clinical and translational research, the CCTS BERD gathers a multidisciplinary team of biostatisticians, epidemiologists, and methodologists who collaborate with investigators across the CCTS Partner Network, by pairing expertise with study-specific needs and providing state-of-the-art study design, data management, and statistical analysis.
BERD Overview

Faculty, Masters-level, Trainees

UAB
Department of Biostatistics
Section on Statistical Genetics
Division of Preventative Medicine
Department of Epidemiology

PARTNERS
Auburn
HudsonAlpha
LSU
Southern Research
Tulane

PBRC
Tuskegee
Univ. Alabama
Univ. MS
Univ. South AL

Project Support
Drop-in Clinics
Individual Collaborations
Nascent Project Panels
Panels Done Quickly

Education / Training
Video Archive
Workshops & Seminars
Faculty Forums
Student Internships

Capacity Development
Statistical Genetics (GxG, GxE)
Clinical Trial Design
Interdisciplinary team-based approaches
Innovation / collaboration in methodologies
Why should you meet with the BERD during Grant Development?

1) Power Analysis/Sample Size Section

2) Statistical Analysis Section

3) Data Management Section
Why should you meet with the BERD during Grant Development?

4) Rigor and Reproducibility
   (http://www.uab.edu/ccts/researchcommons/grant-help/rigor-transparency)

5) High Quality Graphics
How can you meet with the BERD?

• Contact the CCTS Research Commons: ccts@uab.edu or 205.934.7442.

• Walk-in Clinics (Mondays 10AM -2PM, Wednesdays 11AM - 1:30PM)

• Weekly Office Hours.

• Other times by appointment.
During grant development, How soon should you meet with the BERD?

• As soon as the Specific Aims are drafted.

• The specific aims are essential because they define the research hypotheses and what will be measured. It is essential that statistical analysis section and power calculation be tailored to the specific aims. Therefore, the specific aims serve as the foundation of all methodology sections.
What should you expect while meeting with the BERD?

• You should expect a scientific exchange.

• You will be educating the methodologists with regard to your science, your hypotheses, what you will measure. Expect the methodologists to ask questions.

• The methodologists will be providing and writing sections that are tailored specifically to your science, hypotheses, and measurement.

• Expect multiple meetings and communications.
• Madhuri Mulekar, Ph.D.
  Professor of Statistics
  Chair, Mathematics and Statistics
  University of South Alabama
Research Project

1. Identify goals
2. Formulate hypothesis
3. Design experiment
4. Collect data
5. Analysis of data
6. Draw conclusions

Common Practice: To contact Statistician/Biostatistician

- Modify goals
- Contact Statistician/Biostatistician

Madhuri Mulekar
University of South Alabama
Common Practice:
To contact Statistician/Biostatistician after data collection

Major drawbacks of common practice:
• Incorrect design used to collect data
• Collected data not able to answer questions posed
• Biased results
• Possibility of confounding factors

Contact Statistician/biostatistician in the designing stage of the project

Madhuri Mulekar, University of South Alabama
• Courtney Gamston, Pharm.D.
  PGY-1 Ambulatory Care Pharmacy Resident
  Auburn University
Questions?
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ccts@uab.edu or 205.934.7442

Want to know the latest? Visit the website to join the CCTS
uab.edu/ccts
CCTS Research Commons
Project Panels
March 3, 2016

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www.uab.edu/ccts
How do I start?

- **What am I interested in?**
  - Research grant
  - Career development support
  - Small business grant
  - Drug/Device discovery and development

- **What kind of help do I need?**
  - Incisive / creative concept
  - Sharpened study design
  - UAB scientific resources
  - Review / Perspective: does it all hang together?
  - Advice: Grant assembly and management
  - Advice: Graphics and schematic representations
Recommendations for Writing Successful Grant Proposals: An Information Synthesis.

- research and identify appropriate funding opportunities;
- use **key proposal components** to persuade reviewers of project significance and feasibility;
- describe proposed activities and their significance persuasively, clearly, and concisely;
- select a novel, high-impact project;
- conduct an exhaustive literature review;
- seek **review and feedback** from colleagues;
- establish a **study design** that is simple, logical, feasible, and appropriate for the research questions;
- develop a **timeline** for the proposal process;
- ensure that **budgets** are reasonable; and
- consider **interdisciplinary collaborations**.
Goals of Panels Program

1. To promote constructive peer review of projects, papers and grants to sharpen the scientific content, to enhance study design and to improve success in external assessment for all faculty.

2. To facilitate new, interdisciplinary relationships to leverage scientific expertise, to encourage creativity and to promote innovation ("productive collisions").

3. To support junior faculty through mentored career development and investigator-initiated research programs.
Project Panels

Collaborative
Collegial
Targeted discussions driven by Scientific needs
Proposal Development

Consultations: Project Panels

- **Nascent Project Panel (NPP)** – large multi-disciplinary group
- **Translational Investigator Exchange Service (TIES)** – connecting investigators for collaboration
- **Panels Done Quickly (PDQs)** – small, rapidly deployed focused group discussion

![Figure 1. User distribution.](image)
Brief Overview of Current Activities

Table 2. Effect of panels on extramural award success

<table>
<thead>
<tr>
<th>Year (Calendar)</th>
<th># of Panels</th>
<th># of Extramural Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>76</td>
<td>39</td>
</tr>
<tr>
<td>2013</td>
<td>102</td>
<td>78</td>
</tr>
<tr>
<td>2014</td>
<td>126</td>
<td>66</td>
</tr>
<tr>
<td>2015</td>
<td>179</td>
<td>Pending</td>
</tr>
</tbody>
</table>

Figure 2. Project Panel growth over time.
Help Center – How Can We Help You?

Through the CCTS Research Commons we can connect you to a breadth of expertise in pre- and post-award administration as well as research implementation.

If you aren’t certain where to start, let us help you. Contact the Center for Clinical and Translational Science (CCTS). We will guide you to our group of experts and assist you along the way in all facets of your proposal.

If you need additional guidance and/or extended assistance in assembling grant proposals or contracts, please contact:

CCTS Research Commons
E: octs@uab.edu
P: 205.994.7442
F: 205.994.3749

Physical Address:
Pittman Center for Advanced Medical Studies
(PCAMS Building)
1924 7th Avenue South, Birmingham, Alabama 35294
Coca SWAT Team

Council of Center Administrators (COCA) SWAT Team

The Council of Center Administrators brings together a breadth and depth of expertise in pre- and post-award administration as well as research implementation. As the operational arm of UAB's University-wide Interdisciplinary Research Centers (UWIRC), this group is well versed in:

- Grant Submissions (NIH [ASSIST], NSF, PCOR, Foundation, Industry), with special emphasis on multi-investigator programs
- PMCID submissions
- Grants Writers & Content Editors
- Project Management
- Document Formatting
- Collaborative Agreements
- Grants / Contracts Accounting

If you needed additional guidance and / or extended assistance in assembling grant proposals or contracts, please contact:

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Grant Library

NIH

F30  Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral MD/PhD or Other Dual-Doctoral Degree Fellowship
    •  NIH F30 Example 1

F31  Predoctoral Individual National Research Service Award
    •  NIH F31 Example 1

F32  Postdoctoral Individual National Research Service Award
    •  NIH F32 Example 1

T32  Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant
    •  NIH T32 Example 1

K01  Mentored Research Scientist Development Award
    •  NIH K01 Example 1

K08  Mentored Clinical Scientist Research Career Development Award
    •  NIH K08 Example 1

K23  Mentored Patient-Oriented Research Career Development Award

K99/R00  Pathway to Independence Award

R01  Research Project Grant Program
CCTS Research Vouchers

Application Logistics

- Title
- Demographics
- Regulatory Approvals
- Core Resource Consults
- Experimental Goal(s)
- Relationship to CCTS Mission
- Voucher Intent (planned use)
- Experimental Need and Timeline
- Budget & Justification

The application is intentionally very short. Requested content should be brief (1-3 sentences) and to the point.

Applications are accepted by CCTS Research Commons (ccts@uab.edu) on a rolling basis and will be reviewed by the CCTS Executive Council for scientific merit, mission alignment, appropriateness of the budget and justification of need.
Preparing your Research Strategy

Newly revised grant application instructions will:

• highlight the need for applicants to describe details that may have been previously overlooked;

• highlight the need for reviewers to consider such details in their reviews through revised review criteria.

These new instructions and revised review criteria will focus on four areas deemed important for enhancing rigor and transparency:

1. the scientific premise of the proposed research,
2. authentication of key biological and/or chemical resources,
3. consideration of relevant biological variables, and
4. rigorous experimental design for robust and unbiased results.
• Sonya Heath, M.D.

Associate Professor, Division of Infectious Diseases

University of Alabama at Birmingham
Questions?

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@cctsnetwork  Facebook.com/ccts