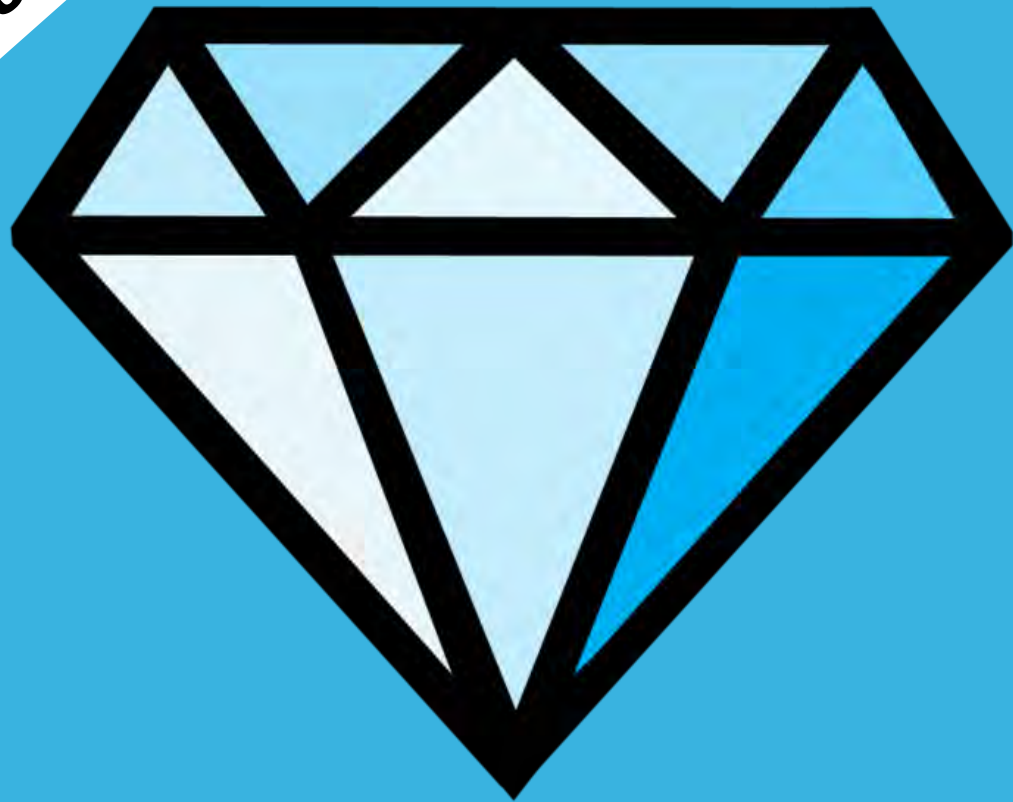


# **THE GRANT DEVELOPMENT LIFECYCLE**

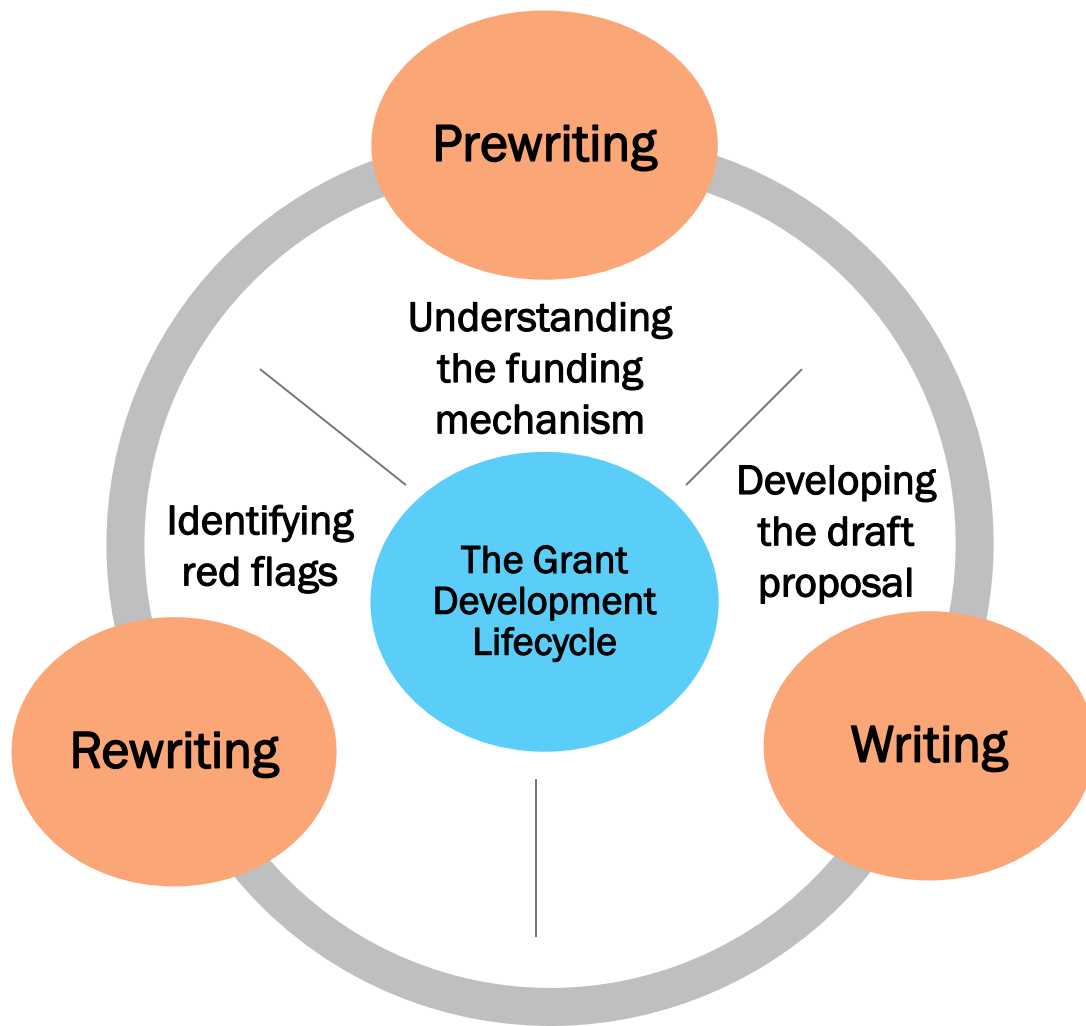
**A STRATEGIC & MULTIFACETED APPROACH**



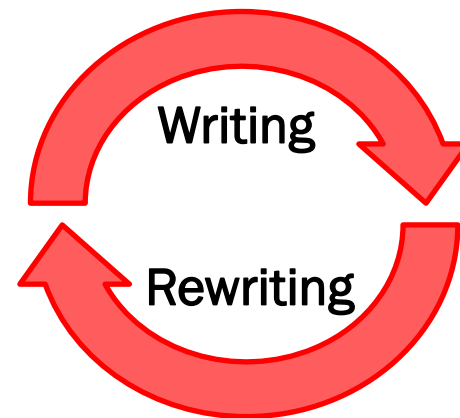
## TODAY'S PRESENTERS

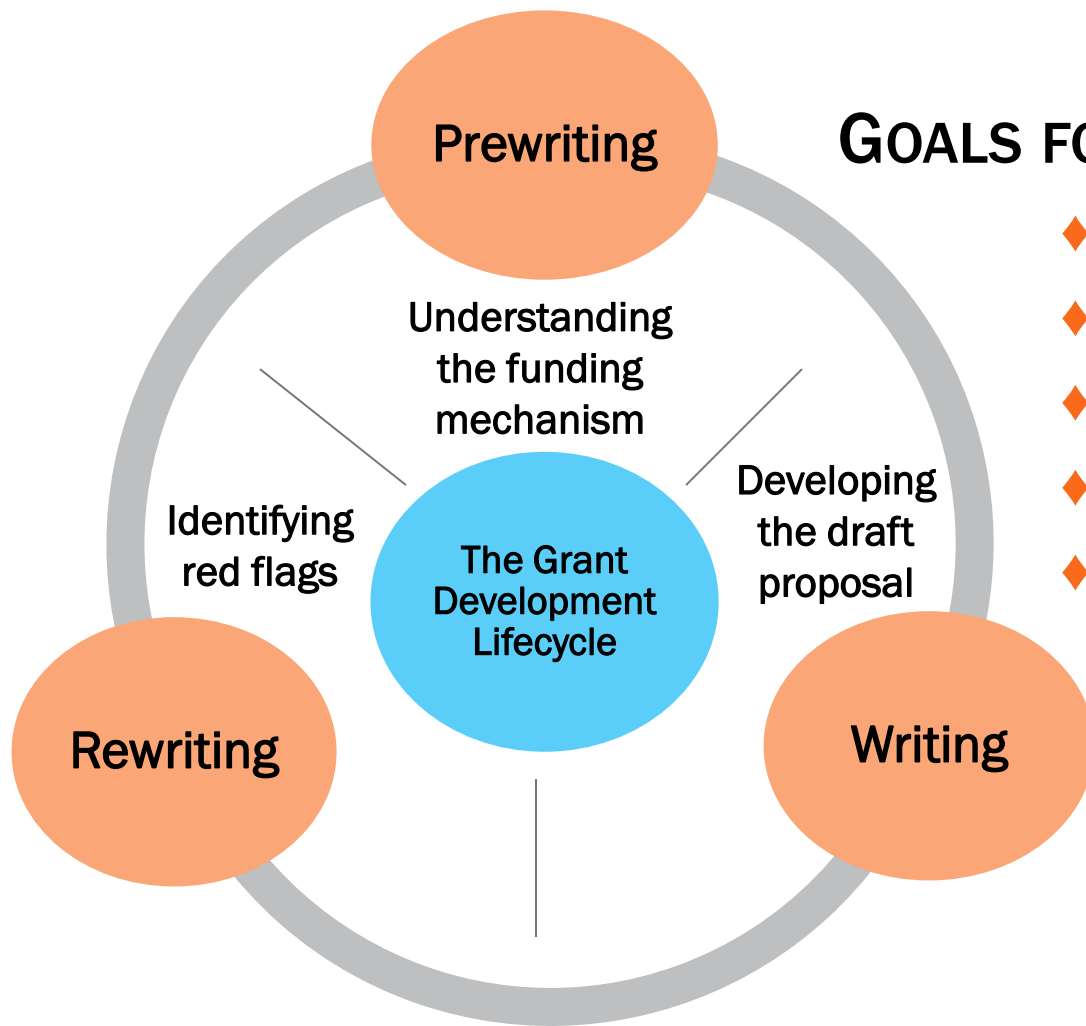
- ◆ Christine Strohm, Ph.D., President, Engineering-Science Editors, Ames, Iowa
- ◆ Sharon Pound, Manager, Strategic Research Initiatives, University of Tennessee, Knoxville
- ◆ Beth LaPensee, Ph.D., Project Manager, Research Development Core, Michigan Institute for Clinical & Health Research, University of Michigan, Ann Arbor, MI





### Resubmission Process





## GOALS FOR TODAY'S PRESENTATION

- ◆ Best Practices
- ◆ Common Mistakes
- ◆ Tips
- ◆ Q&A
- ◆ Group Discussion/Networking



# **FACET 1: PRIOR TO PROPOSAL WRITING**

CHRISTINE STROHM, ENGINEERING-SCIENCE-EDITORS

# ENGINEERING-SCIENCE-EDITORS

## Comprehensive Grant Proposal Support

- ◆ Training of grant support staff
- ◆ Developing narrative with PIs (researchers in IHE, start-up companies, center spin-offs, etc.)
- ◆ Aligning goals and objectives with funder's priorities
- ◆ Coordinating contributions from multiple contributors/institutions
- ◆ Critical review of narrative and work plan
- ◆ Editing
- ◆ Review/re-write/re-submission



# GRANT EDITING: MULTIFACETED APPROACH

## The Four Critical C's:



- ☐ Compliant
- ☐ Complete
- ☐ Compelling
- ☐ Competitive



# THE NUTS AND BOLTS OF PROPOSAL DEVELOPMENT

Taking care of the mechanistic part of proposal writing: Prior to developing and “selling” the IDEA



- ◆ Provide framework for the writing team
- ◆ Relate individual narrative parts to the evaluation rubric
- ◆ Agreement on general time table
- ◆ Establish responsibilities





# PROVIDE FRAMEWORK FOR THE WRITING TEAM

- ◆ Read and deconstruct the RFP
- ◆ Establish a list of general restrictions
- ◆ Extract optimum page numbers for individual parts of the narrative
- ◆ Compile a detailed list of required components
- ◆ Compile a detailed list of mandatory supplemental information



# ESTABLISH A LIST OF GENERAL RESTRICTIONS

| What   | Restriction   |
|--|---|
| Concept Paper,<br>Full Application,<br>Response to Reviewer Comments | <p>All pages must be formatted to fit on 8.5 x 11 inch paper with margins not less than one inch on every side. Use Times New Roman typeface, a black font color, and a font size of 12 point or larger (except in figures or tables, which may be 10 point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies. References must be included as footnotes or endnotes in a font size of 10 or larger.</p> <p>Footnotes and endnotes are counted toward the maximum page requirement</p> <p>Single space permitted</p> |



# ESTABLISH A LIST OF GENERAL RESTRICTIONS

- ◆ Number of Co-PIs
- ◆ Specific experience demands
- ◆ Lineage
- ◆ Rules for subsequent communication
- ◆ Control numbers, page numbers: location
- ◆ Marking of confidential information or trade secrets
- ◆ File names
- ◆ Maximum file size



# OPTIMUM PAGE NUMBERS FOR INDIVIDUAL NARRATIVE PARTS

Extract the type of scoring information provided by the RFP

Translate pages  $\Rightarrow$  points or %

Translate points or %  $\Rightarrow$  pages

Converting pages into points and vice versa helps the PI to address each section appropriately, matching the funding agency's priorities.



# COMPILE A DETAILED LIST OF REQUIRED COMPONENTS

|  |  |            |      |
|--|--|------------|------|
| Project Overview                                 | <ul style="list-style-type: none"><li>• Background:</li><li>• Project Goal:</li><li>• DOE Impact:</li></ul>  | Pages<br>1 | 5 %  |
| Technical Description,<br>Innovation, and Impact | <ul style="list-style-type: none"><li>• Relevance and Outcomes</li><li>• Feasibility</li><li>• Innovations and Impacts</li></ul>   | 7.5        | 25 % |
| Work plan  | <ul style="list-style-type: none"><li>• Project objectives</li><li>• Technical scope summary</li><li>• Work breakdown structure and task</li><li>• Milestones, Go/no-go decision points</li><li>• Project schedule (Gantt chart), Project management</li></ul> | 15         | 50 % |
| Technical qualifications and<br>resources        | Unique qualifications, equipment, relevant, previous work<br>efforts, time commitment of the key team members  | 4.5        | 15 % |
| Technology validation                            | 4 or more critical performance attributes that will be used<br>during the Stage Gate Review  | 1          | 5 %  |



# RELATE INDIVIDUAL NARRATIVE PARTS TO THE EVALUATION MATRIX

| Points awarded | Criterion                                   | What needs to be clearly stated for each step of the proposed process/technology  |
|----------------|---|---|
| 50 %           | Technical Merit, Innovation, and Impact     | <p>What is <b>innovative</b> or advances current state of the art</p> <p>Sufficient <b>technical detail</b> (can be relevant data, calculations, analysis of prior work)</p> <p>Can the technology be <b>applied to a wide range of biomass</b> feedstock (while consistently delivering high quality)</p> <p>Identify <b>4 or more critical characteristics</b>/metrology of bio-ACN that assure that it can be used in existing manufacturing systems producing carbon fibers that meet the mechanical property requirements for structural components</p>  |
| 30 %           | Project Research and Commercialization Plan | <p>Clear description of <b>approach and critical paths</b></p> <p>Are <b>task descriptions</b> clear, detailed, timely, and reasonable</p> <p>Clear <b>identification of technical risks</b> and appropriate <b>mitigation strategies</b></p> <p>Clear definition of the <b>baseline, metrics, and milestones</b></p> <p>Strength of the <b>quantifiable metrics, milestones, and a mid-point deliverables</b></p> <p>Identify <b>target markets, competitors, distribution channels</b></p> <p>Identify <b>barriers to market penetration</b></p> <p>Comprehensive <b>commercialization plan</b></p> |
| 20 %           | Team and Resources                          | <p>Display of willingness to openly communicate with consortium over duration of work</p> <p>Demonstrate ability to facilitate and expedite further development and commercial deployment</p> <p>Reasonable budgets and spending plan</p>   |



# DETAILED LIST OF MANDATORY SUPPLEMENTAL INFORMATION

- ◆ Bio-sketches for key personnel (page limit)
- ◆ Letters of support (page limit)
- ◆ Summary for public release (page/character limit)
- ◆ Summary slide (detail required content)
- ◆ Foreign entity and performance of work in the US waiver requests
- ◆ US manufacturing plans
- ◆ Data management plan



# ESTABLISH RESPONSIBILITIES

- ◆ Multi-institutional projects
- ◆ Narrative related illustrations, team structure, work flow, Gantt chart
- ◆ Point person for individual parts of the narrative
- ◆ Version sharing and control
- ◆ Scheduled communication





# COMMON PITFALLS

## Complete

WORK PLANS, TEAM STRUCTURE, OTHER CHARTS AS PART OF NARRATIVE  
MANDATORY SUPPLEMENTAL INFORMATION  
PENDING PROPOSALS  
MANDATORY SUPPORT LETTERS (INSTITUTIONAL, INDUSTRY PARTNERS)  
OPTIONAL INFORMATION

## Compliant

FONT SIZE, MARGINS, SPACING (“RE-PURPOSED” PROPOSALS)  
PAGE LIMITS FOR NON-NARRATIVE PARTS  
WORD/CHARACTER LIMITATIONS FOR SUMMARY, REBUTTAL, TITLE ETC.  
REFERENCES  
FILE NAMES  
TEMPLATES



# **FACET 2: WRITING**

SHARON POUND, UNIVERSITY OF TENNESSEE

# RESEARCH DEVELOPMENT DRIVEN BY STRATEGIC PLAN



# ACADEMIC VS. GRANT WRITING

## ACADEMIC

- ◆ Scholarly pursuit:  
*Individual passion*
- ◆ Past oriented:  
*Work that has been done*
- ◆ Theme centered:  
*Theory and thesis*
- ◆ Expository rhetoric:  
*Explaining to reader*

## GRANT

- ◆ Sponsor goals:  
*Service attitude*
- ◆ Future oriented:  
*Work that should be done*
- ◆ Project centered:  
*Objectives and activities*
- ◆ Persuasive rhetoric:  
*“Selling” the reader*



# ACADEMIC VS. GRANT WRITING

## ACADEMIC

- ◆ Impersonal tone:  
*Objective, dispassionate*
- ◆ Individualistic:  
*Primarily a solo activity*
- ◆ Few length constraints:  
*Verbosity rewarded*
- ◆ Specialized terminology:  
*“Insider jargon”*

## GRANT

- ◆ Personal tone:  
*Conveys excitement*
- ◆ Team focused:  
*Feedback needed*
- ◆ Strict length constraints:  
*Brevity rewarded*
- ◆ Accessible language:  
*Easily understood*



# THE HEILMEIER CATECHISM

- ◆ What are you trying to do? Why is it hard? Articulate your objectives using absolutely no jargon.
- ◆ How is it done today, and what are the limits of current practice?
- ◆ What's new in your approach and why do you think it will be successful?
- ◆ Who cares?
- ◆ If you're successful, what difference will it make?  
(What impact will success have?)



# THE HEILMEIER CATECHISM

- ◆ What are the risks and the payoffs?
- ◆ How much will it cost?
- ◆ How long will it take?
- ◆ What are the midterm and final "exams" to check for success?  
(i.e. how will progress be measured?)



# SET EXPECTATIONS: MEMORANDUM OF UNDERSTANDING

| Proposal Development Team (PDT) & Principal Investigator (PI)<br>Memorandum of Understanding  |  |
|---|--|
| <p>The UTK Office of Research has assembled the Proposal Development Team (PDT) to assist researchers in managing the development of large, complex, or strategically important funding proposals. The goal of the team is to increase proposal success rates by providing centralized support to the research community. The Office of Research has found that preparation of successful proposals requires an early start and a plan that allows completion of requirements plus thoughtful review stages.</p>  |  |
| <p>The PDT is available to assist with the following services. <i>PI: Please select the services that you would like the PDT to provide for the proposal</i> <u>NSF ECONOMIC</u></p>  |  |
| <b>Sponsored Programs Support</b><br><input checked="" type="checkbox"/> Assist with gathering the documents required from subcontractors, if applicable to proposal.<br><input checked="" type="checkbox"/> Assist with the development of the budget and budget justification.<br><input checked="" type="checkbox"/> Assist with completing the specific sponsor forms and applications (e.g., grants.gov, Fastlane).<br><input checked="" type="checkbox"/> Assist with gathering the supplemental documents (CVs, current and pending support, letters of commitment/support, and other documents as required by the solicitation).<br><input checked="" type="checkbox"/> Identify types and formats of supplemental documents and provide examples.  |  |
| <b>Editorial Support</b><br><input checked="" type="checkbox"/> Edit proposal and recommend changes that will improve the likelihood of success.<br><input checked="" type="checkbox"/> Provide graphic support.<br><input checked="" type="checkbox"/> Provide an external reviewer to assess the proposal draft.  |  |
| <b>Project Management Support</b><br><i>PDT Manager: Check the activities that are appropriate for this proposal.</i><br><input checked="" type="checkbox"/> Coordinate the work of the PDT to ensure that the team performs the services selected by the PI.<br><input checked="" type="checkbox"/> Ensure the attendance of appropriate personnel at each scheduled meeting.<br><input checked="" type="checkbox"/> Ensure that the Sponsored Programs Administrator reviews the solicitation and develops the RFP Compliance Checklist for elements required in a complete proposal, including TERA-PAMS or yellow sheet routing.<br><input checked="" type="checkbox"/> Ensure that the Editor reviews the solicitation and develops the Editorial Outline for the content and format of the letter of intent, project summary, and project description.  |  |
| <p><b>To accomplish the items selected above, the PDT Manager and the PI will:</b></p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Establish and follow a proposal development calendar with dates for the following milestones:<ul style="list-style-type: none"><li>Initial meeting/calendar review</li><li>Requirements review (RFP Compliance Checklist and Editorial Outline)</li><li>First draft of project narrative to Editor</li><li>First draft of budget and budget justification to Sponsored Programs Administrator</li><li>Supplemental documents review</li><li>Draft of project narrative to external reviewers</li><li>TERA-PAMS or yellow sheet work to begin</li><li>Final checklist review, including documentation for cost share, collaborations, and subcontractors</li><li>TERA-PAMS or yellow sheet routing to begin</li><li>TERA-PAMS or yellow sheet routing complete. Complete proposal arrives in Sponsored Programs (5 business days prior to sponsor deadline, except for final project narrative which is due 2 business days prior to sponsor deadline)</li><li>Submission to Sponsor</li><li>Lessons Learned</li></ul></li><li><input checked="" type="checkbox"/> Establish regular status meetings.</li></ul> |  |
| <p>The PDT Project Manager and the PI jointly agree to the above plan.</p>  |  |
| <p><i>Marianne Damata</i> 7/13/2011<br/>Principal Investigator Date</p>   | <p><i>Chad Am</i> 7/13/2011<br/>PDT Manager Date</p> |
| <p>Office: 41700 Cell: 865.314.3092</p>   | <p>Office: 4-1112 Cell: 704-608-2236</p>             |





# SET EXPECTATIONS: SCHEDULE

| July |                 |   |                                |                 |                         |     |  | August |   |     |     |                 |     |     |  |
|------|-----------------|---|--------------------------------|-----------------|-------------------------|-----|--|--------|---|-----|-----|-----------------|-----|-----|--|
| Sun  | Mon             | Tue   | Wed                            | Thu             | Fri                     | Sat |  | Sun    | Mon   | Tue | Wed | Thu             | Fri | Sat |  |
|      |                 |   |                                |                 | 1                       | 2   |  |        | 1   | 2   | 3   | 4               | 5   | 6   |  |
|      |                 |   |                                |                 |                         |     |  |        | Final Edits with Bill                               |     |     | Gaps Analysis   |     |     |  |
|      |                 |   |                                |                 |                         |     |  |        | Prep for Gaps Analysis                              |     |     |                 |     |     |  |
| 3    | 4               | 5   | 6                              | 7               | 8                       | 9   |  | 7      | 8   | 9   | 10  | 11              | 12  | 13  |  |
|      |                 |   |                                |                 |                         |     |  |        | Work Issues from Gaps Analysis<br>Tera/Pams Routing |     |     | Hand Off to OR  |     |     |  |
| 10   | 11              | 12  | 13                             | 14              | 15                      | 16  |  | 14     | 15  | 16  | 17  | 18              | 19  | 20  |  |
|      |                 |   |                                | Initial Meeting |                         |     |  |        | OR Final Checks                                     |     |     | Submit          |     |     |  |
| 17   | 18              | 19  | 20                             | 21              | 22                      | 23  |  | 21     | 22  | 23  | 24  | 25              | 26  | 27  |  |
|      | Initial Budgets | First Draft Development<br>Budget Development |                                |                 |                         |     |  |        |   |     |     | Lessons Learned |     |     |  |
| 24   | 25              | 26  | 27                             | 28              | 29                      | 30  |  | 28     | 29  | 30  | 31  |                 |     |     |  |
|      | Draft Review    | Final Budget                                  | Final Budget and Justification |                 | Supplementary Documents |     |  |        |   |     |     |                 |     |     |  |
| 31   |                 |   |                                |                 |                         |     |  |        |   |     |     |                 |     |     |  |
| 2011 |                 |   |                                |                 |                         |     |  | 2011   |   |     |     |                 |     |     |  |



# SET EXPECTATIONS: WRITING ASSIGNMENTS

|    | A                                     | B  | C                                  | D                | E                        |
|----|---------------------------------------|--|------------------------------------|------------------|--------------------------|
| 1  | <b>STEM2 Writing Outline</b>          |  |                                    |                  |                          |
| 2  |                                       |  |                                    |                  |                          |
| 3  | <b>MSP Proposal outline headings:</b> | <b>Narrative topics:</b>   | <b>Responsibility of:</b>          | <b>Deadline:</b> | <b>Suggested Length:</b> |
| 4  |                                       |  |                                    |                  |                          |
| 5  | <b>Vision, Goals and Outcomes</b>     |  |                                    |                  | 4                        |
| 6  |                                       | Clearly describe the project's vision, goals, and anticipated outcomes linked to the project's stated theory of action and with respect to all required components of a partnership  | Done/to be edited                  |                  |                          |
| 7  |                                       | <b>Research Questions</b>  | Jennifer, Lynn, Theresa, Stephanie |                  |                          |
| 8  |                                       | Informed by relevant baseline K-12 student and teacher data  |                                    |                  |                          |
| 9  |                                       | Consistent with state math or science standards  |                                    |                  |                          |
| 10 |                                       | NOTE: baseline data and quantitative outcome goals and annual benchmarks re. student & teacher outcomes belong in <i>Special Information and Supplementary Documentation</i> section of proposal   |                                    |                  |                          |
| 11 |                                       | <b>For Higher Education partner:</b><br>*Institutional context and anticipated work in K-12 STEM education<br>*Degree and kinds of prior STEM faculty involvement/experience with K-12<br>*Relevant institutional policies/practices that reward faculty involvement<br>*How will UT benefit/learn from partnership?<br>*How will UT contribute to K-12 education? | Done/to be edited                  |                  |                          |
| 12 |                                       | <b>For K-12 partner:</b><br>*Context within which proposed work will occur (curricular, instructional, technological)<br>*Policy endeavors that would be supportive<br>*How will KCS benefit from partnership?<br>*How will KCS contribute to higher education?  | Theresa, Becky, Carole             |                  |                          |
|    |                                       | <b>Provide evidence of the following:</b><br>a. An effective partnership among core and supporting organizations that will work together to realize the project's vision and goals.  | Susan, Sharon                      |                  |                          |



# COMMON MISTAKES

- ◆ Unrealistic expectations regarding:
  - the time it takes to create a solid first draft
  - the time it takes to input team members' revisions
- ◆ Lack of coordination with faculty members' departments
- ◆ Insufficient consideration of broader impacts, working with underrepresented populations, education plans, evaluation plans, management plans, and other areas outside technical expertise areas of research
- ◆ Too many or too few graphics
- ◆ Writer's block
- ◆ Perfectionism – too little, too late



# WRITING TIPS



- ◆ Plan your approach to version control
  - “Hot Potato”
  - SharePoint
  - DropBox
  - Google Docs
- ◆ Establish protocol for file naming
- ◆ Establish clear authority for approval of team edits
- ◆ Plan ALWAYS to submit at least one day early
- ◆ Work closely with your Office of Sponsored Programs to ensure realistic budget
- ◆ Allow extra time for input from collaborators, including letters, narrative and budget



# **FACET 3: REWRITING (EDITING)**

BETH LAPENSEE, PHD, UNIVERSITY OF MICHIGAN

## Research Development Core

### In Person Consultation

- Hypothesis
- Specific aims
- Study design
- Biostatistics
- Collaborators/Mentors
- Funding Sources
- Future research directions

### Grant Editing



[www.michr.umich.edu](http://www.michr.umich.edu)



# RESEARCH DEVELOPMENT CORE (RDC): EDITING SERVICES

## ◆ Eligibility

- Editing is limited to grants with an upcoming deadline
- Available to any investigator at U-M

## ◆ Services

- Multifaceted editing approach
- Focus on the primary narratives
- One time review
- Limitations of services – we do not make/insert figures, insert references, place content in forms/pdfs



# RESEARCH DEVELOPMENT CORE (RDC): EDITING SERVICES

## ◆ Scheduling an Editing Project

- First come, first served
- Must schedule in advance
- Request a close to final version of grant for editing

## ◆ Turnaround Time

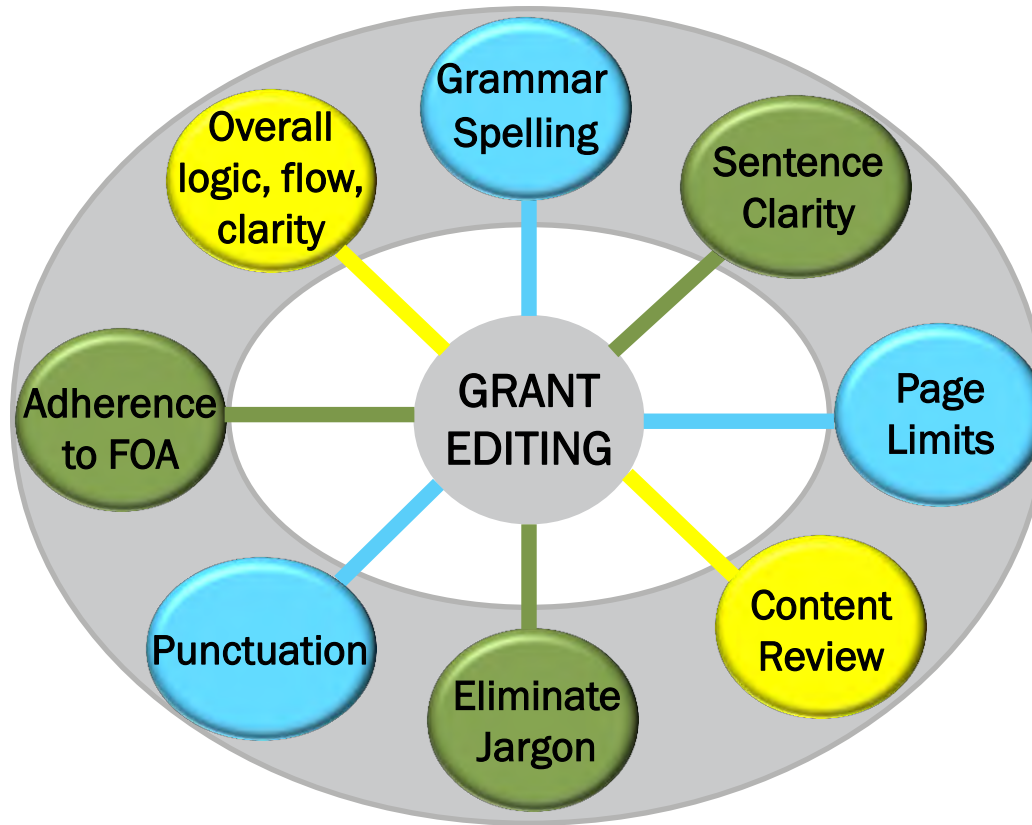
- 7-10 business days

*The ultimate content of the grant is the responsibility of the investigator*



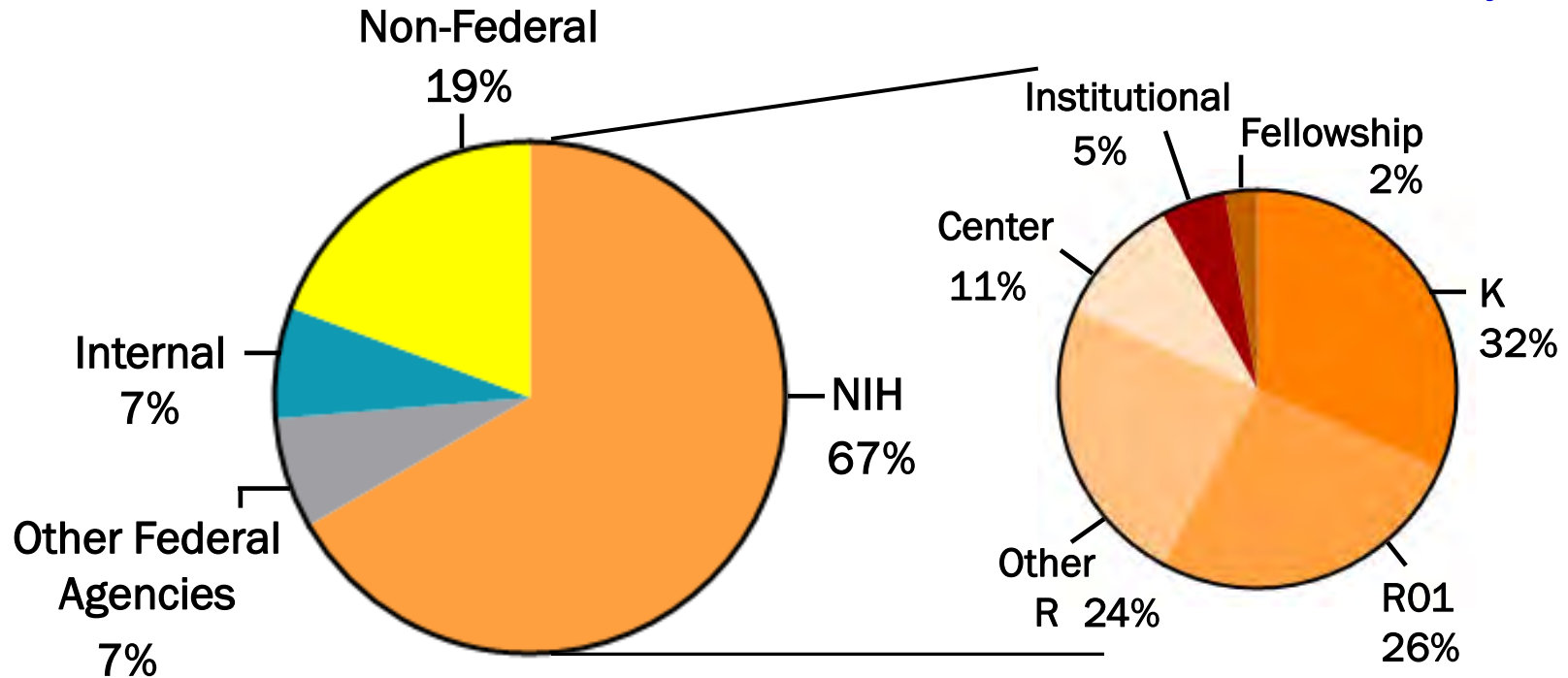


# GRANT EDITING: MULTIFACETED APPROACH



# GRANT EDITING EXPERIENCE

~ 125 grants edited  
since July 2012



# COMMON MISTAKES IN GRANT PROPOSALS

## Sentence Clarity

100% of grants require rewriting of sentences to emphasize clarity and impact

This is unclear

Perhaps you mean.....

Please confirm I retained your meaning

## Page Limits

45% of grants require reduction in text to adhere to page limitations



# COMMON MISTAKES IN GRANT PROPOSALS

## Specific Aims Page

### SPECIFIC AIMS

The development of the mammalian immune system is typically thought to occur in a linear fashion, from immaturity to maturity as a function of antigen exposure. Previous findings in birds and in mice, however, indicate that this view is oversimplified. Thus, in these species, the developing immune system appears to be "layered" in a manner that is independent of antigen exposure, beginning as a multilineage fetal system that is replaced by an anatomically and biologically distinct multilineage system after birth.<sup>1,2</sup> If so, then developmentally ordered and unique hematopoietic stem/progenitor cells (HSPC) could give rise to distinct lymphocyte lineages at different stages of development.

In ongoing experiments, we have found that such immune system "layering" occurs in humans. Our preliminary data show that: (1) the human fetus can mount a vigorous immune response to exogenous antigens;<sup>3</sup> (2) the human fetal immune response to exogenous antigens can be actively suppressed by antigen-specific Tregs;<sup>4,5</sup> (3) fetal Tregs are derived from a fetal-specific lineage of T cells; (4) fetal and adult HSPCs give rise to distinct populations of T cells; and (5) fetal HSPC-derived T cells show an enhanced ability to generate Tregs during thymic maturation and upon exposure to foreign antigens *in vitro*.<sup>6</sup> These data suggest that the human immune system is comprised of two distinct waves: one generated from a "fetal" HSPC that exists *in utero* in the fetal liver and bone marrow, and another generated from a superseding "adult" HSPC that resides in the bone marrow at later time points. The former gives rise to an immune system that is prone to deliver a tolerogenic response to foreign antigens. The latter gives rise to an immune system that is more likely to generate an immunoreactive responses (e.g., one including cytotoxic T cells and neutralizing antibodies).

Given these findings, we hypothesize that physiologic layering of immune system ontogeny leads to a normal range in the ratio of fetal- to adult-type T cells at birth, with some neonates exhibiting a higher fraction of fetal T cells than others; and that those with a high ratio of fetal/adult T cells will generate predominant Th2 responses to routine childhood immunizations.

These hypotheses will be addressed in the experiments of the following Specific Aims:

**Specific Aim 1. To determine the normal range of fetal to adult T cells in the umbilical cord blood of the full term neonate.**

In these experiments, comprehensive phenotypic, transcriptional, and functional analyses will be carried out on umbilical cord blood (UCB) mononuclear cells from a total of 200 normal full-term deliveries, obtained over an 18-month time frame from the Human Cord Blood Bank of the UCSF Clinical and Translational Sciences Institute, from Dr. Elizabeth Sheall of the University of Texas M.D. Anderson Cancer Center, and as part of a prospective study to be carried out with Dr. Shannon Thyne of the Child Health Center at San Francisco General Hospital (SFGH). Naive T cells in these samples will be studied to determine the ratio of fetal/adult T cells ( $T_F/T_A$ ) and the relationship of this ratio to naive T cell function.

**Specific Aim 2. To determine whether those full-term neonates with a high ratio of fetal/adult T cells are more likely to generate a Th2-polarized immune response to routine childhood immunizations.** Under the auspices of an existing protocol that has been approved by the UCSF Committee on Human Research protocol and in collaboration with Dr. Shannon Thyne, 50 full-term infants will be followed from birth through 12 months. Cord blood samples obtained from each of these newborns will be examined for the  $T_F/T_A$  ratio and this ratio will be related to the response of the newborn to hepatitis B vaccination.

We anticipate that this study will reveal normal variation in the ratio of fetal to adult T cells at birth and that such variability in this ratio will be directly related to – and possibly causal of – a Th2 skew that results in a poor response to childhood vaccines and a heightened predisposition to childhood infections and to atopic disorders. If so, then modalities aimed at changing this ratio more towards the adult lineage at birth may provide benefit to a substantial number of newborns.

Courtesy on NIH NIAID

← Significance

← Background and Previous Work

← Hypothesis

← Aims

← How Aims will be accomplished

← Expected outcomes & impact

## Common Mistakes

- ◆ Illogical Order
- ◆ Sections missing
- ◆ Lack of detail
- ◆ Too much detail
- ◆ No hypothesis
- ◆ Aims too wordy

❖ 83% of first-time editing clients make one or more of the above mistakes



# COMMON MISTAKES IN GRANT PROPOSALS

## Approach/Methodology

- ◆ Insufficient details to understand methods and/or data analysis
- ◆ Too technical
  - Broader goal is lost
  - Reference techniques when possible
- ◆ Poor balance between background/preliminary data and what is being proposed

Language from a Funding Announcement

*“....provide evidence for the design of a rigorous research program in....”*

❖ I leave comments regarding approach in 75% of grants



# COMMON MISTAKES IN GRANT PROPOSALS

## Figures and Tables

- ◆ Inclusion of a figure/table would provide clarity for complex information
- ◆ Investigator includes figures /tables but:
  - Does not refer to them in the narrative
  - Refers to the wrong figures
  - Describes data incorrectly
  - They need to be larger or clearer and/or have accompanying legend
- ◆ Figure is unnecessary

| Compensation for<br>Group 1 | Compensation for<br>Group 2 | Compensation for<br>Group 3 |
|-----------------------------|-----------------------------|-----------------------------|
| \$ 100                      | \$ 200                      | \$ 300                      |

❖ I comment on  
figures/tables in  
43% of grants



# COMMON MISTAKES IN GRANT PROPOSALS

## Expected Results

- ◆ Not addressed or insufficient

## Potential Problems and Alternative Strategies

- ◆ Not addressed
- ◆ Identify potential problems but no alternative strategies

## Future Direction

- ◆ Not addressed or insufficient



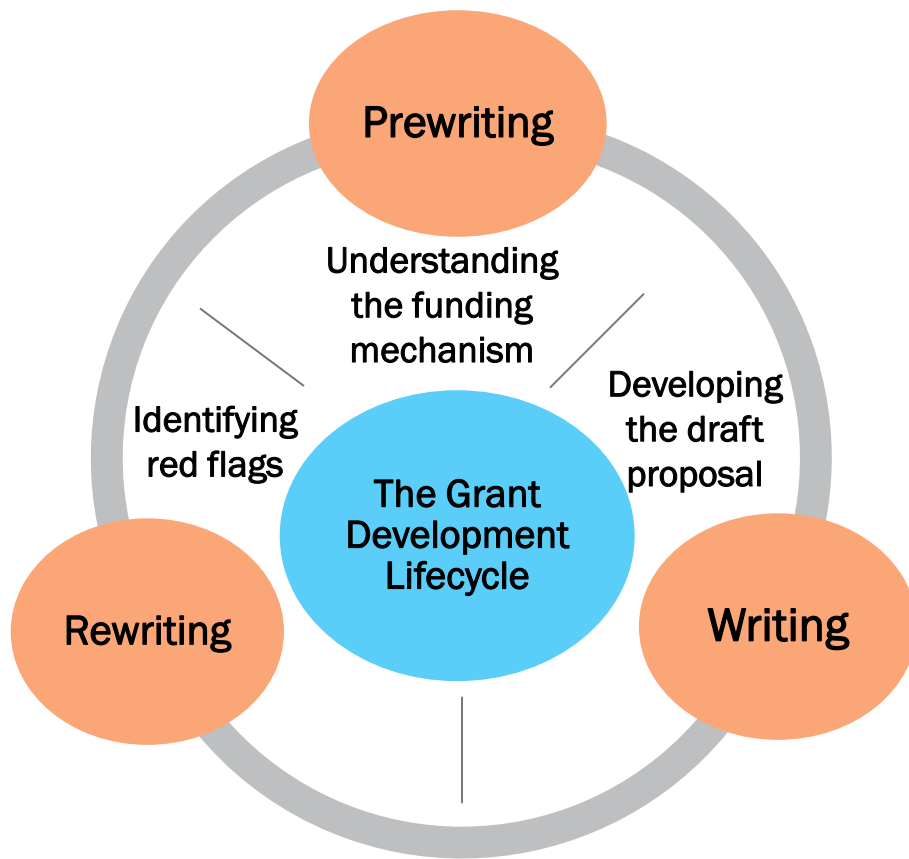
# TIPS FOR A GRANT EDITOR



- ◆ Provide investigators with editing guidelines
- ◆ Always ask for more time than you anticipate you will need
- ◆ Stick to agreed upon editing dates with investigators
- ◆ Read the proposal in entirety
- ◆ Focus on grammar and then content
- ◆ Ask for summary statements if a resubmission
- ◆ Take advantage of the comments function in Word







THANK YOU! QUESTIONS?

Christine Strohm  
***ESE***  
*Engineering-Science-Editors*

Sharon Pound  
*University of Tennessee*



Beth LaPensee  
*University of Michigan*

