

John S. Dunn Foundation Collaborative Research Award Program

BioScience Research Collaborative
May 18, 2017



Agenda

- Overview of John S. Dunn Foundation Collaborative Research Award Program
- Components of a competitive pre-proposal
- Writing tips
- Review of previous award-winning applications

Overview of the Collaborative Research Award Program

Purpose

- To foster new, exemplary interdisciplinary and inter-institutional engagement in the quantitative biomedical sciences
- To provide two types of seed grants
 - Research grants
 - Event grants

Research grants

- Purpose
 - To support research/preliminary work needed to be competitive for future funding
- Award amount
 - Up to \$98,000 total funds
- Award period
 - Two (2) years

Event grants

- Purpose
 - To support events/activities designed to bring together new interdisciplinary communities
- Award amount
 - Up to \$8,000
- Award period
 - One (1) year

Team eligibility requirements

- Team eligibility requirements
 - Institutional affiliation
 - BRC tenancy
 - Multi-institutional
 - New collaborations
 - One-proposal limit
 - Previous recipients

Eligibility—Institutional affiliation

- Tenure/tenure-track faculty affiliated with a GCC member institution
 - Baylor College of Medicine
 - Rice University
 - University of Houston
 - University of Texas Health Science Center at Houston
 - University of Texas M.D. Anderson Cancer Center
 - University of Texas Medical Branch at Galveston
 - Texas A&M Health Science Center IBT

Eligibility—BRC tenancy

- One member of the collaborative team must be identified as BRC-associated faculty eligible for the award program. See list [here](#).
- These may include select TCH faculty



Eligibility—Multi-institutional

- Research teams
 - Must include collaborators from 2 different eligible institutions
- Event teams
 - Must include collaborators from 3 different eligible institutions

Eligibility—New collaboration

- New collaboration
 - Research team members must not have worked together previously^{*t}

* ***Previous collaborative activity*** is defined as measurable outcomes, including but not limited to publications, grants, patents, etc.

t ***Collaborations in new areas*** from individuals who have previously collaborated may be considered under special circumstances.

Eligibility—One-proposal limit

- Faculty may be a PI or member of only 1 research team or 1 event team (i.e., not on 2 research teams or 2 event teams)
- Faculty may be a PI on 1 research and 1 event proposal as long as the team meets all other criteria

Eligibility—Previous recipients

- There is a 5-year moratorium for all previous award recipients
 - Members of any research or event team that received an award between 2012-2016 are ineligible to apply for the 2017 grant program. See list [here](#).

Application and submission process

- Two-step application process
 - Pre-proposal
 - Invited full proposals
- Submission process
 - Convert pre-proposal into a single PDF
 - E-mail pre-proposal to Suzanne Tomlinson at smtomlin@rice.edu

Important dates

- **Pre-proposal due date** **June 1, 2017**
- Invitations to submit a full proposal Early August 2017
- Full proposal due date September 29, 2017
- Notice of awards Early December 2017
- Project start date January 1, 2018
- Project end date December 31, 2019

Reviewers and review process

- Reviewers

- Review panel comprises highly qualified scientists with a wide range of disciplinary expertise
- Reviewers are identified from the GCC community based on the scope of the proposed research projects and **availability of suggested reviewers**
- Scientific disciplines covered by submissions to this program range across a spectrum within the quantitative biomedical sciences
 - *It is recommended that submission be tailored to both experts in the submissions area of research as well as scientists with expertise in other disciplines within the biomedical sciences*

- Review process

- Review panel will select the top research and event proposals and will invite submission of full proposals **that adhere to the submission requirements**

Pre-proposal components

Research grant pre-proposal format

- Cover page
- Scientific abstract (400-word limit)
 - Describe the proposed research
 - Delineate the specific aims
 - May include 1 image (with no more than 3 panels)
- Collaborative interactions and impact (300-word limit)
 - Describe how the project represents a new collaborative research initiative
 - Describe the team's planned cross-disciplinary approach
 - Describe the perceived novelty and impact of the collaborative research
 - Include a statement certifying that the team members have not worked together previously
- Investigator biosketches (2-page limit/person)
 - Use (abbreviated) NIH format, and cite relevant publications
- Potential reviewers (3 from within GCC, 3 external to TMC)
 - Avoid recommending anyone with a conflict of interest

Event grant pre-proposal format

- Cover page
- Scientific abstract (300-word limit)
 - Describe the areas of research that will be the focus of the event
 - Delineate the specific aims for the event
- Collaborative interactions and impact (300-word limit)
 - Describe how the project represents a new collaborative research initiative
 - Describe the team's planned cross-disciplinary approach
 - Describe the perceived novelty and impact of the collaborative research
- Investigator biosketches (2-page limit/person)
 - Use NIH format, and cite relevant publications
 - **Non-negotiable**
- Potential reviewers (2 from within GCC, 2 external to TMC)
 - Avoid recommending anyone with a conflict of interest

Title

- Used by the sponsor's administrators to route your application to the appropriate reviewers
- Should provide an accurate representation of your proposed project
- Should generate interest in and enthusiasm for your proposed project

Scientific abstract

- Critically important
- Must provide a conceptual overview
- Must outline the overarching project goal, specific aims, and expected outcomes
- Must be clearly written
- Must grab reviewers' attention
- Must generate enthusiasm for the project
- Must be able to stand alone

One approach

Scientific abstract

- Introduce the project
 - Educate the reviewer
 - Identify the gap in the knowledge and/or state the critical need
- State the overarching project goal
 - Explain the rationale for pursuing the project
 - Present the central working hypothesis
 - Explain the significance and innovation of the project

One approach

Scientific abstract

- Delineate the specific aims
 - Ensure that all aims link back to and support the overarching project goal
 - Provide conceptual rather than descriptive aims
 - Delineate a reasonable number of aims
 - Present the aims in a logical order
 - Make sure no aim is dependent on the successful completion of another aim
- Describe the expected outcomes

One approach

Collaborative interactions

- Indicate how the project represents a new collaborative research initiative
 - Identify the members of the collaborative team and indicate their respective areas of expertise/research
 - Explain how each team members' expertise/research, preliminary work, methodologies, instrumentation, etc., will complement that of other team members
- Describe the team's planned cross-disciplinary approach
 - Define who will do what, when
 - Indicate how you will communicate with one another
 - Explain how you will coordinate efforts and share data

One approach

Collaborative interactions

- Describe the perceived novelty and impact of the collaborative research
 - Go beyond simply saying that the research is novel and will have impact, and explain the way in which it is novel and will have impact
 - Explain the way in which the collaborative project will lay the groundwork for future applications to an external sponsor
- Include a statement certifying that the team members have not worked together previously

Writing tips

Tip 1

- Start early!



Tip 2

- Create a proposal preparation checklist
 - Include all proposal tasks
 - List all proposal sections
- Develop a proposal timeline
 - Be realistic
 - Incorporate a cushion to accommodate Murphy's Law

Murphy's Laws

1. In any field of endeavor, anything that can go wrong, will go wrong.
2. Left to themselves, things always go from bad to worse.
3. If there is a possibility of several things going wrong, the one that will go wrong, is the one that will cause the most damage.
4. Nature always sides with the hidden flaw.
5. If everything seems to be going well, you have obviously overlooked something.

Tip 3

- Download, read, and follow the instructions
 - The application instructions will contain all of the information you will need to prepare your application
 - Verify that all team members are eligible to apply
- Analyze the instructions carefully
 - Make sure your proposed research project is a good fit for the target program
 - Look for important themes
 - Echo key terms

Tip 4

- Think about your target audience (especially reviewers), the “curse of knowledge,” and the reviewers’ resulting needs and expectations

“It’s hard to know what it is like for someone else not to know something that you know. It’s the chief driver of bad writing.”

— Steven Pinker

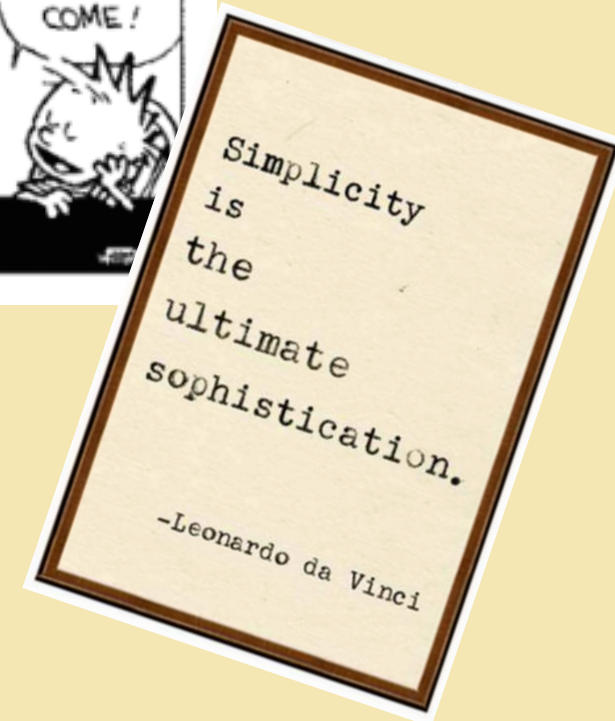
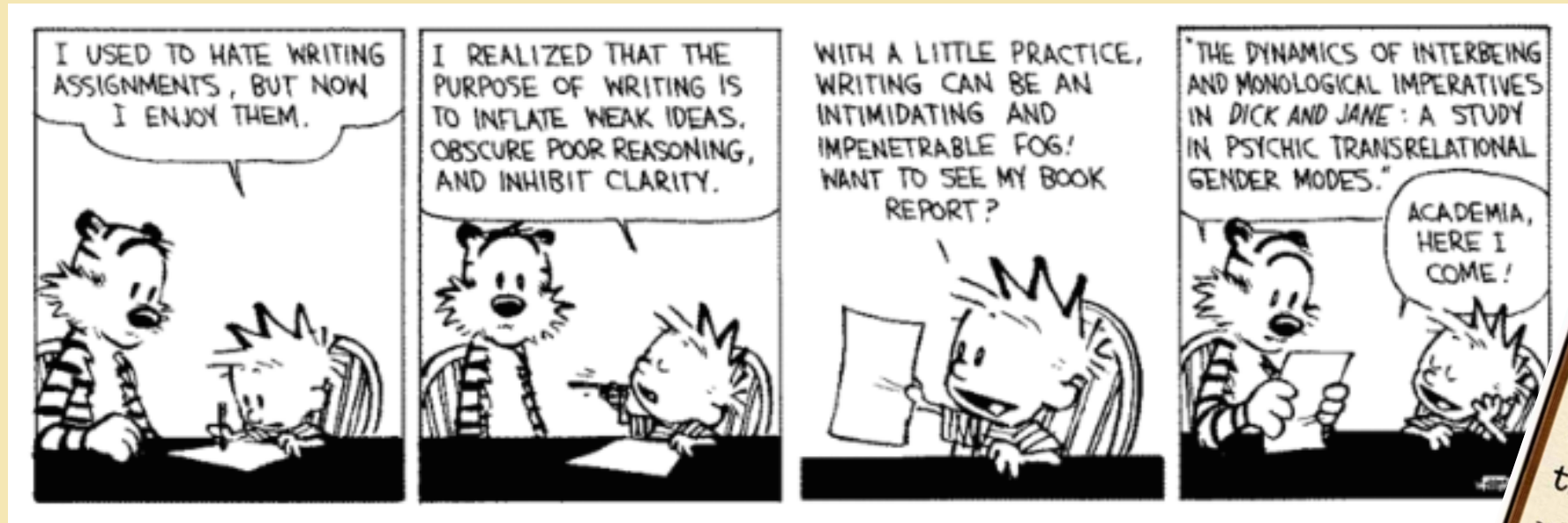
Tip 5

- Anticipate your reviewers' questions, and make sure you've fully and explicitly addressed them in your pre-proposal



Tip 6

- Write clearly



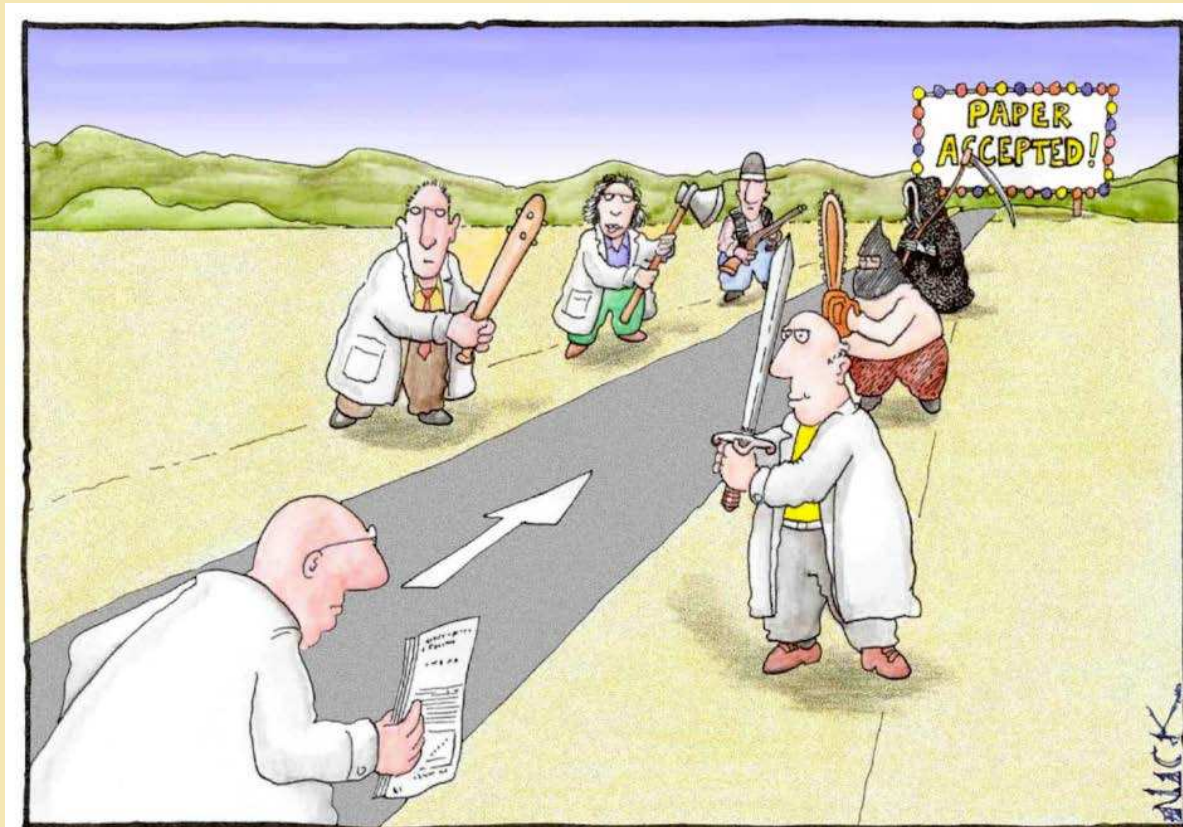
Tip 7

- Pay attention to details
 - Some sponsors are sticklers, and will return an application without review if all guidelines are not followed exactly.



Tip 8

- Make sure that you understand the review process and that you have **explicitly** addressed all review criteria



Most scientists regarded the new streamlined peer-review process as "quite an improvement."

Tip 9

- Vet the pre-proposal before submitting it

“Easy reading is damn hard writing.”

— Nathaniel Hawthorne

“The beautiful part of writing is that you don't have to get it right the first time, unlike, say, a brain surgeon.”

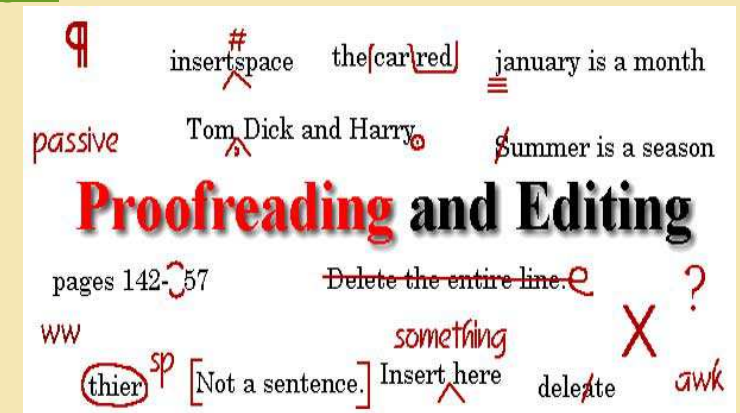
— Robert Cormier

*“Rewriting is the essence of writing well —
where the game is won or lost.”*

— William Zinsser

Tip 10

- Edit and proofread your work, and ask at least one other person to review it as well
- If you struggle with writing, visit these two sites for answers to common questions:
 - Grammar Girl:
 - Provides a remarkably clear—and even interesting—guide to grammar, punctuation, and style
 - Located at <http://www.quickanddirtytips.com/grammar-girl>
 - GrammarCheck
 - Offers an excellent blog and set of infographics
 - Located at <http://www.grammarcheck.net/>



Review of successful pre-proposal

Review Criteria

- Novelty of the proposed research
- Qualifications of the investigators
- Interdisciplinary nature of the work/integration of the team
- Quality of the Science
- Anticipated level of impact/long term sustainability

Score 1-5 scale with 1 being excellent and 5 being poor

Common Reviewers' Comments

- **Aims either not independent or well described; overly vague; unclear**
- Unclear as to whether investigator has required expertise
- Interdisciplinary nature of the *work/integration of the team*
 - *Make sure to highlight investigators' differences but complementarity for the project*
 - Providing samples may not be enough
 - Is it a new type of collaboration or is it commonplace
- Not novel
- No clear hypothesis or anticipated outcome



For assistance

For programmatic questions:

Suzanne Tomlinson, PhD

Director, Research Programs

Gulf Coast Consortia

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For a pre-submission review of your pre-proposal:

Phyllis McBride, PhD

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