

Grant Writing - Tips

BES ECN - 2022 Early Career Grant Writing Webinar

Athena Sefat Program Manager, Basic Energy Sciences

April 12, 2022

Outline

- My Background
- Grant Writing: Tips # 1 to 5!

My Background

- Ph.D. (2005), from McMaster Univ. [condensed-matter physics/solid state chem.; correlated oxides]
- **Postdoc** (2007), at Ames Laboratory [magnetic materials; intermetallics]
- Wigner Fellow (2007-2009), at Oak Ridge National Laboratory (ORNL)
- Department of Energy (DOE)'s **Early Career Awardee** (2010-2015) [high-T_c Fe-based superconductors]
- **Senior researcher**, lead of a multi-PI research team (2015-2020) on a Basic Energy Sciences (BES) project, at ORNL. [Study of chemical, electronic, and spin competitions in low-dimensional magnets, unconventional superconductors, and quantum spin liquids.]
- Part-time detail to BES (~2018-2020), while at ORNL
- Program manager at BES (August 2020 on):
 - ☐ Co-manager of *Physical Behavior of Materials* program
 - ☐ Acting program manager for operations of *Nanoscale Science Research Centers*

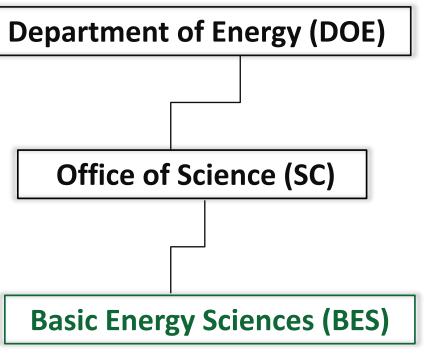


Tip 1: Find your Research Alignment with a Funding Agency

Mission: To ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions

SC is the Federal Government's largest single funder of **materials** and **chemical sciences**.

Mission: To understand, predict, and ultimately control matter & energy at the electronic, atomic, and molecular levels



Tip 2: Learn the Latest Scientific Findings

✓ Find the state-of-the art/field through **review documents** and peer-reviewed **publications** (e.g., databases such as Web of Science)

✓ Use **other resources**, for example, take note of BES-sponsored **workshop reports** that address the current status, and recommend priority research directions/opportunities (PRDs/PROs)





Tip 3: Find Funding Opportunity Announcements (FOAs)

Follow each FOA's details and guidelines:

- ✓ Note if there are any specific Science Focus Areas
- ✓ Pay attention to the Closing Date, and if a pre-application is required
- ✓ Check eligibility conditions
- ✓ Propose your project's budget according to the award size
- ✓ Give sufficient science scope, based on feasibility and years of funding
- ✓ Have proof-of-concept, and propose forward-looking innovative research



Tip 4: Plan to Review Well!

- Find your niche, in a crowded research field!
- **Proposal space is valuable** offer a short background on why your proposed research is important technologically, and longer background on the science you are proposing. Most important: mainly write on the actual research being proposed!
- Reusing a proposal already submitted to another agency? Remember to indicate this in the application and pay attention to revising the proposal as to <u>not include</u> sections only relevant to the other agency.
- Put forth a structured, organized, and formatted proposal do not "burry" important details, but make sure they are clearly shown and easily found.
- Avoid typos! Use updated references!

Tip 5: Consider the Potential Review Criteria

Some review criteria may be the following:

- * Responsiveness to the objectives and requirements of the FOA
- Science and technical merit
- Appropriateness of the proposed research approaches
- Likelihood of scientific success/impact





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