



**University  
of Idaho**

*Zoom participants: Please  
keep your microphone muted  
until the Q&A session*

# **NSF MAJOR RESEARCH INSTRUMENTATION PROGRAM: CREATING COMPETITIVE PROPOSALS**

**RESEARCH AND FACULTY DEVELOPMENT  
FACULTY SUCCESS SEMINAR SERIES**

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Senior Proposal Development Specialist

Office of Research and Faculty Development

*Please note that this session is being recorded*

# OFFICE OF RESEARCH AND FACULTY DEVELOPMENT

I We provide proposal development assistance across the spectrum\*



I Meet goals in the UI strategic plan – grow research and creative efforts across all disciplines

I Reach out to request service – [uidaho.edu/orfd](http://uidaho.edu/orfd)

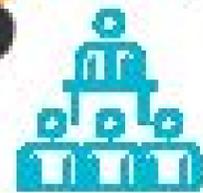
\*Not including budget preparation

*All services are optional and are granted on a first come, first served basis*



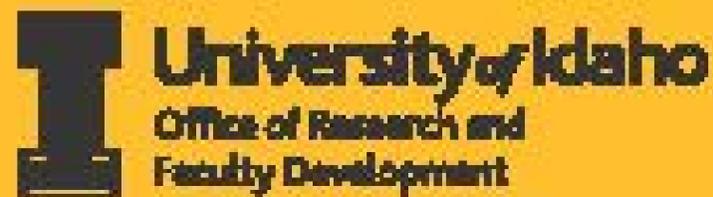
# **FACULTY SUCCESS SEMINARS**

*Let Us Be Your Guide  
Through the Proposal  
Development Process*



**JOIN US IN IRIC 305  
12:30 P.M. – 1:30 P.M. PT**

Can't join us in person? Then join us live via Zoom:  
[uidaho.zoom.us/j/798224314](https://uidaho.zoom.us/j/798224314). Each seminar will  
be recorded and be available on our website.



**University of Idaho**  
Office of Research and  
Faculty Development



## FALL 2019

- Sept. 4 HERC IGEM Info Session
- Sept. 11 Find Funding Opportunities: Intro to Pivot
- Sept. 25 NSF CAREER All Year: An Introduction
- Oct. 2 W.M. Keck Foundation Info Session
- Oct. 16 Tips for Successful Proposal Writing
- Oct. 23 NSF CAREER All Year: Getting Started
- Oct. 30 Exploring Humanities Funding Opportunities
- Nov. 13 MW CTR-IN Funding Opportunities
- Nov. 20 NSF CAREER All Year: Integrating the Research and Education Plans
- Dec. 11 M.J. Murdock Trust Commercialization Initiation Program Info Session

## SPRING 2020

- Jan. 22 Developing Successful Project Management Plans for Large Proposals (**Rescheduled Apr 15**)
- Feb. 5 NSF: Broader Impacts Really Do Matter!
- Feb. 12 NIH: Funding Mechanisms Overview (R03, R21, R01)
- Feb. 19 NIH: Developing Your First RO1 Proposal
- Mar. 4 NIH: Understanding Proposal Review
- Mar. 11 NSF: Understanding Proposal Review
- Mar. 25 Fulbright Faculty Scholar Program Info Session
- Apr. 1 Find Funding Opportunities: Intro to Pivot
- Apr. 8 NSF MRI: Creating Competitive Proposals
- Apr. 15 Developing Successful Project Management Plans for Large Proposals



**WE GUIDE THE DEVELOPMENT  
OF COMPETITIVE EXTERNAL  
GRANT PROPOSALS**

**Office of  
Research  
and Faculty  
Development**

**Phone:** (208) 885-1144

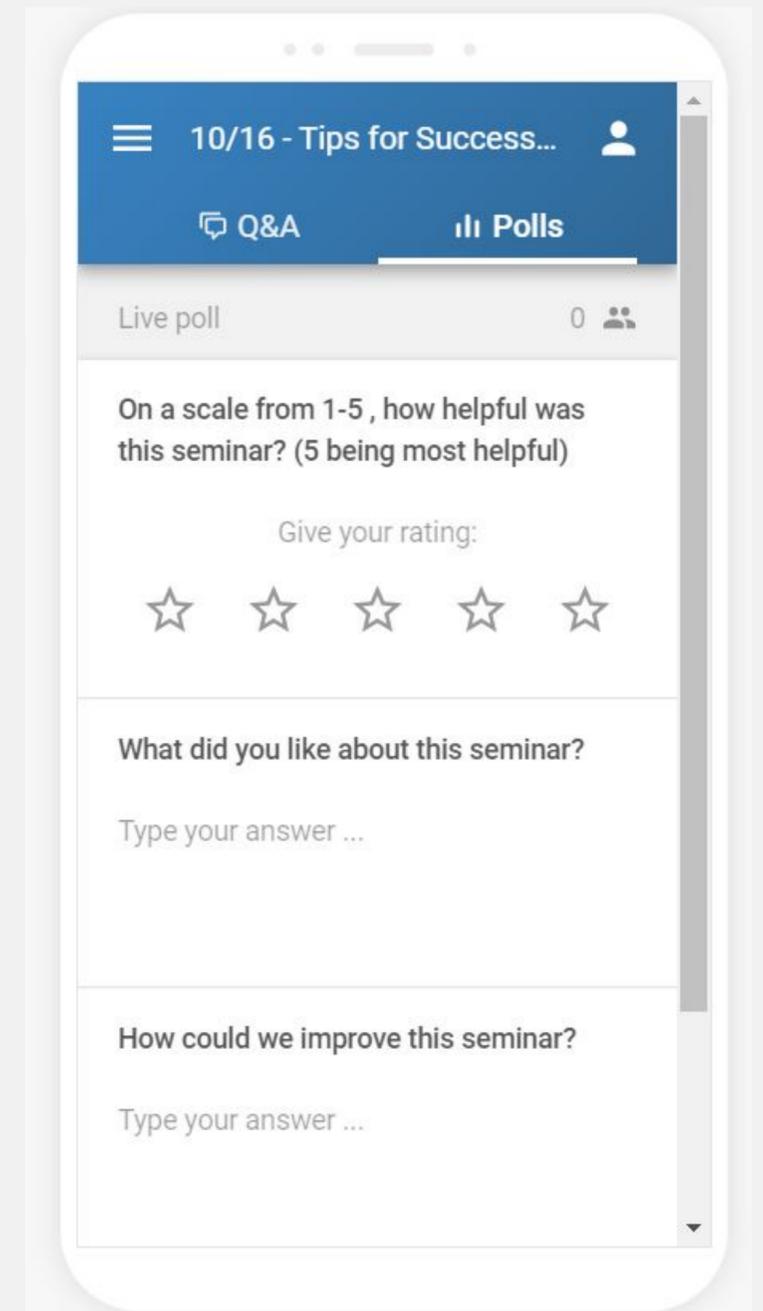
**Email:** [ored-rfdteam@uidaho.edu](mailto:ored-rfdteam@uidaho.edu)

**Website:** [uidaho.edu/orfd](http://uidaho.edu/orfd)

# HELP US IMPROVE OUR SEMINARS

- I After the Q&A session: brief 3 question sli.do poll
- *On a scale from 1-5, how helpful was this seminar?*
  - *What did you like most about this seminar?*
  - *How can we improve this seminar?*

[www.slido.com](http://www.slido.com) or use the **sli.do** app (Use code #FSS)



# OBJECTIVES

IN THIS SESSION, WE WILL DISCUSS:

- I Overview of the NSF MRI Program
- I Elements of the MRI application and project description
- I Strategies and tips to align project to the MRI priorities and requirements
- I Limited submission process & timeline
- I Q&A Session with Dr. Randy Phelps, Staff Associate in the NSF Office of International & Integrative Activities (from 1-1:30 p.m.)

# MRI PROGRAM - SYNOPSIS

- I Goal is to **increase access** to **multi-user** scientific and engineering instrumentation for **research** and **research training**
- I Supports the **acquisition** or **development** of a **multi-user** research instrument that is, in general, too costly and/or not appropriate for support through other NSF programs
- I Expected to **enhance research training of students** who will become the next generation of instrument users, designers and builders

# MRI PROGRAM - SYNOPSIS

**I** MRI Program provides support to:

- **Acquire critical research instrumentation** without which advances in fundamental science and engineering research may not otherwise occur
- **Develop next-generation research instruments** that open new opportunities to advance the frontiers in science and engineering research

# NEXT-GENERATION INSTRUMENTATION

“NSF strongly values MRI proposals that seek to develop next-generation research instruments that open new frontiers of research. As a result the MRI program seeks to support development proposals, with up to a third of awards per competition for development proposals *(depending on the numbers and quality of proposals)*.”

# MRI PROGRAM BASICS



## **I Awards:**

- Track 1: Instrument requests between \$100,000 to less than \$1 million
- Track 2: Requests between \$1M up to and including \$4M

**I Duration:** up to 3 years for acquisition proposals; up to 5 years for development proposals.

## **I Limit on Number of Proposals per Organization: 3 total**

- 2 proposals allowed for Track 1; one allowed for Track 2
- Proposals within the two tracks may be either for acquisition or development
- RFD uses internal review process to determine which proposal will be submitted

**I Submission Window:** January 1 – January 19, annually

# MRI PROGRAM BASICS



## **I** Know what the program does not fund:

- **General-purpose** equipment normally be found in a laboratory or easily procured
- Research, education, or outreach **activities enabled by** the requested instrumentation
- Requests for multiple **independent** instruments to outfit a general-purpose laboratory or research environment.
- Instrumentation used primarily for **STEM education courses and outreach**
- Research **outside of NSF-supported fields** of science and engineering

## **I** **Matching requirement: 30%** cost share on total project costs

# NSF MRI PROPOSAL COMPONENTS

## I Required sections:

- Coversheet
- Project Summary
- Table of Contents
- Project Description
- References Cited
- Biographical Sketches
- Budget
- Current and Pending Support
- Facilities, Equipment, and Other Resources
- [Special Information & Supplementary Documentation](#)
- Single Copy Documents – Collaborators and Other Affiliations

## I Encouraged sections:

- Single-Copy Document – Suggested Reviewers

# NSF MRI PROPOSAL COMPONENTS



## I Project Description (15 pages max.):

- Must include subsections (A) - (E):
  - A1. Information about the Proposal
  - A2. Justification for submission as a Development proposal (*development only*)
  - B. Research Activities to be Enabled (*includes “Results from Prior Support”*)
  - C. Description of Research Instrumentation and Needs
  - D. Broader Impacts (including Impact on Research and Training Infrastructure)
  - E. Management Plan
- Note: A separate section labeled "Intellectual Merit" is not required for proposals submitted to this solicitation. However, PI must still address the intellectual merit and broader impacts of the proposed effort as part of the project description.

# TIPS FOR A COMPETITIVE MRI PROPOSAL



## 1) Get the Basics Right

- Read the [Program Solicitation](#) and [MRI FAQs](#)
  - Multi-user, shared instrumentation
  - Research and research training
  - Research across disciplinary boundaries
- Know what the program will and will not fund
- 30% cost sharing requirement; voluntary cost share is not allowed
- There is a detailed checklist in the solicitation – use it!

# TIPS FOR A COMPETITIVE MRI PROPOSAL



## 2) Tell a story that resonates

- Emphasize the science, rather than the instrument
  - The science should drive the request for the instrument
  - Describe compelling research and research training to be undertaken with the instrument that builds research capacity and impact
  - Consider organizing users into research themes or by types of use

## 3) Present a compelling case

- Assemble a strong team of major users (~10-12 major users)
- Present preliminary data – e.g., data obtained from similar equipment to show how MRI will support leading-edge research

# TIPS FOR A COMPETITIVE MRI PROPOSAL



## 4) Research training is a critical component of an MRI proposal

- MRI seeks to create the next generation of instrument users, designers and builders
- Must be concrete, feasible, and evaluated
- Needs to broaden participation of individuals who are typically underrepresented in STEM
- *All proposals will include undergraduate training* – need to present a research training plan that makes UI stand out
  - E.g., get students involved in design, selection, or demonstration of instrument during the proposal stage

# TIPS FOR A COMPETITIVE MRI PROPOSAL



## 5) Other Important Sections

- Management Plan
  - Describes how and by whom the instrument will be used
  - Demonstrates appropriate leadership, sufficient commitment, and technical expertise for effective scheduling and usage of the instrument
- Data Management Plan
  - Plan to disseminate and share results of instrument-generated data
  - Consider how to enable metadata and manage storage of data from instrument
- Institutional Letter of Commitment – Needs to demonstrate adequate commitment to ensure successful operations and maintenance

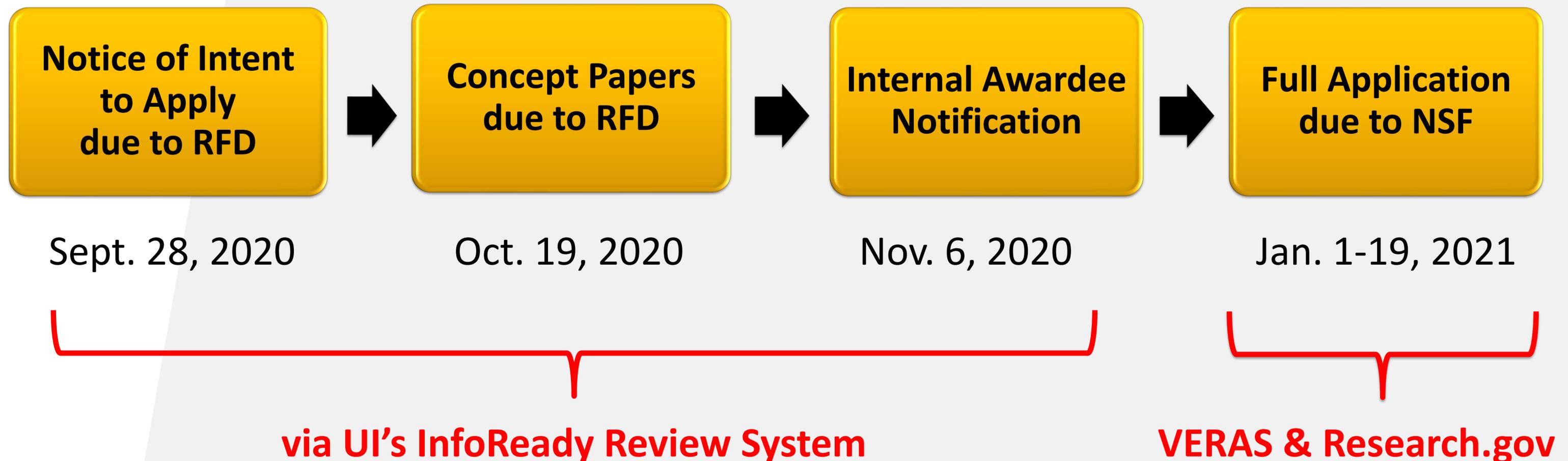
# GET TO KNOW NSF



- I** Know the [NSF PAPPG](#)
- I** Review [NSF Strategic Plan](#)
- I** Get copies of funded MRI proposals ([NSF Awards Advanced Search](#))
- I** Talk to successful PIs
- I** Contact Program Officers in Divisions where you fit
- I** Serve as a review panelist

# MRI - LIMITED SUBMISSION PROCESS

USING INFOREADY REVIEW:



*\*All deadlines are at 5:00 pm Pacific Time.*

# TAKEAWAYS



- I** Get the basics right – MRI Program is highly organized, honed, and transparent program.
- I** Start MRI planning and proposal development prior to LS process
  - Assemble a strong team centered around research that will benefit from multi-user, shared instrumentation
  - Team composition may inform cost sharing and institutional commitment
- I** RFD can assist you!
  - Email: [ored-rfdteam@uidaho.edu](mailto:ored-rfdteam@uidaho.edu)
  - Url: <https://www.uidaho.edu/research/about/orfd>

**REQUEST RFD SERVICES**

# THANK YOU!

I Questions?

I Q & A with Dr. Randy Phelps, Staff Associate, NSF Office of International and Integrative Activities (OIIA) and Program Coordinator for Foundation-wide MRI and STC Programs.

I Email: [rphelps@nsf.gov](mailto:rphelps@nsf.gov)

# THANK YOU FOR COMING!



## *QUESTIONS?*

**BEFORE YOU GO...**

Please take a brief 3-question sli.do poll

[www.slido.com](http://www.slido.com) or use the **sli.do** app

Use code #FSS

