

IT'S AS FLEXIBLE AS YOUR PRESENTATION

# NIH R Grants:

## *Perspectives from a study section member*



ELISABETH BARTON, PHD

Professor  
Associate Dean for Faculty and Staff Affairs

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Applied Physiology and Kinesiology  
College of Health and Human Performance  
University of Florida



# Guiding principles

## ***Preparation***

- Find the right NIH home for your research
- Know your audience
- The 30000 foot view is critical
- Details matter

## ***The Aftermath***

- Interpreting scores
- Next steps
- Persistence



# The Basics – NIH Institutes

## 27 Institutes and Centers (IC)

Each with a different:

- mission & priorities
- budget
- funding strategy





## Institute Choice

- Does your proposal fit the mission of the institute?
- What are the current paylines?
- What is the bonus for Early-stage or New investigators?

Institute	General (%)	NI (%)	ESI (%)	Other
NIA	15	18	20	AD: 25-30
NIAMS	10		15	
NIDDK	16		25	
NINDS	14		25	AD: 25-30
NHLBI	14		24	

(AD: Alzheimer's)



## Know your audience – the review panel

### *Study section choice*

- Use the Assisted Referral Tool for guidance.
- <https://art.csr.nih.gov/ART/>
- Look at the rosters – do the members publish in your field?
- Will the members be interested in your problem?



# Know your audience – The review panel





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# Know your audience – The review panel







## The 30000 foot view

***Emphasize the importance of the work (Significance)***

***Make major hypotheses clear (Approach)***

***Simple graphics help reviewers understand the science and the goals***



# The Details: Review Criteria

## \*\*\*Significance\*\*\*

- Recognize prior work - lay out the strengths and weaknesses
- Spell out the gaps in understanding and why they need to be filled
- Underscore your strategy to fill those gaps

## \*\*\*Approach\*\*\*

- Clear and rigorous study designs
- Blinding and biological variables
- Include rationale
- Power calculations - will you be able to detect what you think you will find?
- Sufficient preliminary data to provide confidence in feasibility

## Innovation

- Conceptual - does your proposal lead to a paradigm shift?
- Technical – have you developed new methodology or a novel platform to enable your proposal to be successful and groundbreaking?



# The Details: Review Criteria

## *Investigator*

- Demonstrated expertise through prior publications and preliminary data
- Find collaborators to complement your skill set and support the science

## *Environment*

- Normally acceptable – can the infrastructure support the work? If so, great!

## *Additional factors*

- Postage stamp figures – please don't
- White space – please do!
- Animals and/or humans – make sure these are complete
- Authentication and resource sharing – remember to include them



## The review – what goes on behind closed doors?

***Your grant will have ~20 minutes devoted to discussion***

- Clearly stated goals makes it easy for reviewers to present.
- Remember that reviewers may not have similar areas of expertise.
- Open discussion – reviewers discuss disparate opinions. Panel can raise additional questions/comments
- Scores are revisited – Disparate scores can resolve, or not!
- Score should match level of enthusiasm
- Panel can vote out of range – reason should be stated, but score is not

## Even watertight proposals



*...can be unraveled*



## The review – new aspects

### ***Randomized review sequence***

- Top grant in a study section may be first/last/ or in the middle of discussion
- Keeps reviewers on our toes

### ***Virtual vs. in person***

- Attention can wander on ZOOM
- Discussions can become prolonged on ZOOM
- Scoring seems consistent regardless of format



# The Aftermath - Interpreting Scores

## ***Single digit percentile?***

- Well done!

## ***Close but not close enough***

- Investigator is fixable (new collaborator/specific expertise)
- Approach is fixable (consider the reviewers comments)
- Significance may be fixable (Were you unclear, or is the problem not as important as you anticipated?)
- Innovation can be a score modifier, not a driver

## ***What not discussed can mean***

- Where is the problem?



# The Aftermath - Next Steps

## ***Step back***

- Consider what needs to be addressed

## ***Act to address the critiques***

- Convincing preliminary data
- Securing necessary expertise
- Modifying study design

## ***What not discussed can mean***

- Is there a fatal flaw?
- Is there a common flaw?





## The Aftermath - Persistence

***Keep trying...and trying.....and trying***

***Clarify and reinforce your message***

***Motivate and justify your approach***