

## A Winning Recipe for Your Grant Application Grant Bootcamp – Session 3



***Peter Scheidt, MD,  
Randi Streisand, PhD,  
& Stephan Ladisch, MD***



### Objectives



- Describe the critical elements of a strong research proposal
- Describe the purpose and key components; your Specific Aims
- Know what it takes to develop a strong competitive research proposal.
- Finish in 20 minutes

## You want to develop a good research project



- How to get started?
- Know the literature
- Develop Specific Aims

## General Characteristics of a Strong Research Proposal



- High impact
- Innovative/novel
- Niche for unique contribution
- Realistic
- Fundable



## Developing the Science



### Preparation

- Choose area of strong interest and passion
- Identify under-explored niche
- Develop long-term goal in niche area with a continuum of research to reach your goal
- Comprehensive literature review to become the “world’s expert”
- Discuss and explore ideas with a mentor and knowledgeable colleagues

## Strong Mentorship is Essential



- Interested and available
- Committed to your success
- Often a supervisor but not necessarily
- Multiple mentors are useful
- Check-out and evaluate potential mentors before selecting

## What are Specific Aims?



The one page section of a research proposal titled **Specific Aims** that encapsulates the study including:

- Summarized background and significance
- Brief description of the scientific approach
- What is to be accomplished – specific aims

The equivalent of – **“You had me at hello”**

## Why are Specific Aims Important?



- Your tool to develop the science; the proposed research
- The primary communication about your proposal to reviewers who do not read the full proposal (all but the assigned reviewers)



## Components of Draft Specific Aims



- Start with bullets, outline or diagram
- The problem
- What is known – “the Story”
- The gap(s) in knowledge and/or research needed to advance
- The goal or central hypothesis to be tested
- The general research approach
- The specific aims to be accomplished
  - *Outcome/target - not process*
  - *With hypotheses if appropriate*
- The payoff – why expected outcomes are important to the field and investigator

## Specific Aims – Communication Tool

Who is the audience?



- Your mentors and others providing input
- All of your reviewers
- The only part that many reviewers may see
- Logical and linear – tell a story
- Reader-friendly and organized
- Must be easy and enjoyable to read (“sparkle”)
- At the conclusion the reviewer feels excited and compelled to support

## Input and Feedback



- Seek as much review and feedback as you can get
  - *Mentor(s)*
  - *Peers*
- Use experts in the topic and experienced non-experts
- The more eyes and feedback, the stronger the proposal is likely to be
- Include advice and input that improves and fits



## Recommended Timeline for Success



- Concept & scientific development: 6 mos.–1 year
- Specific Aims: 4–6 months
- Biostatistics consultation: 4-6 months
- Full proposal: 6–12 weeks
- Budget: 2–3 months
- Endorsements & supporting documents: 4-6 weeks

## The Full Proposal



- Title early to define what study is really about
- Parallel to the Specific Aims
- Tell the “story”: logical, linear, compelling
- Justify all major decisions
- Assume some reviewers are not experts on the topic
- Well written and reader friendly
  - *Limit jargon & excessive acronyms*
  - *Spaces & appearance important*
- Methods sufficient to understand approach but not excessive or too dense.
- Impact and pay-off visionary and impactful

## Beyond the Science



- After developing a strong scientific proposal you are not done
- Biostatistics
- Grants and Contracts office and budget
- Letters of support as needed: collaboration(s), institutional, mentor, etc.
- IRB, Responsible conduct of research training
- Assembling and packaging

## To Recap



- Become the world's expert on your topic
- Seek strong mentorship
- Seek lots of input and feedback
- Well developed Specific Aims for developing the proposal and for communication
- A logical, linear, compelling case
- Allow ample time
- Prepare a full proposal package that "sparkles"
- Get help



Recap

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