



# Mini Proposal Bootcamp

# Organizers:



Crystal Botham, PhD



Courtney Peña, PhD



Lily Xu



Miles Tyner

# Mini Bootcamp Activities:

## Workshops - Wednesdays 1-2:30 PM



Orit Rapaport, PhD

- ✓ Getting Started on Your Proposal
- ✓ Writing Crystal Clear Specific Aims
- ➔ **Crafting a Compelling Training Plan**
- Addressing the Why, What, & How of the Research Strategy

## Time to Write - Thursdays 4-6 pm



Leah Guthrie, PhD

- A time to work on your proposal or other writing project
- Zoom or in-person (Lorry Lokey Stem Cell Research Building)

\* In-person get \$5 gift card to Peet's

# Scored Review Criteria

**Candidate**

**Career  
Development  
Plan**

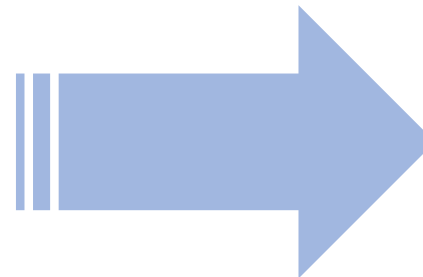
Research  
Plan

Environment &  
Institutional  
Commitment

**Mentors**

- ✓ March 2  
(specific aims)
- March 16  
(Research strategy)

Many Fellowships & Career Development Awards use very similar review criteria but with slightly different names



Independent  
Research  
Career

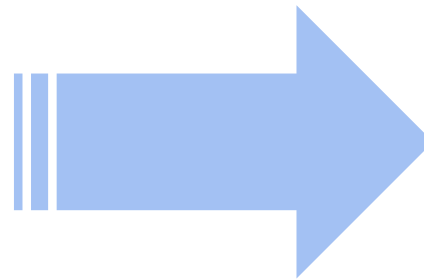
# Scored Review Criteria

Candidate



## Important Proposal Docs

- ✓ Biosketch
- Candidate's Background
- Career Goals & Objectives
- Letters of Reference

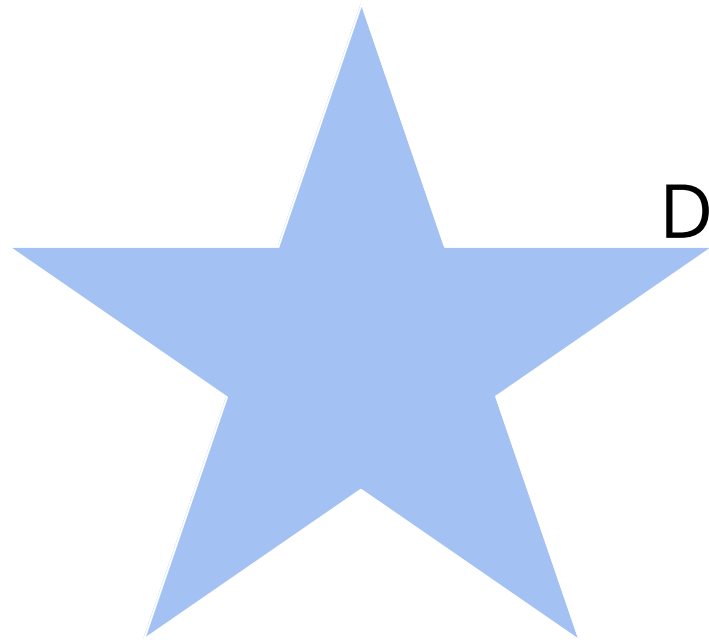


Independent  
Research  
Career

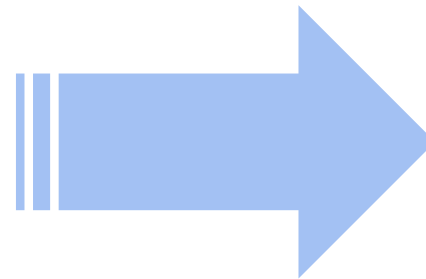
# Scored Review Criteria

## Important Proposal Docs

- Training Plan
- Mentor(s) Statement
- Advisory Committee letters

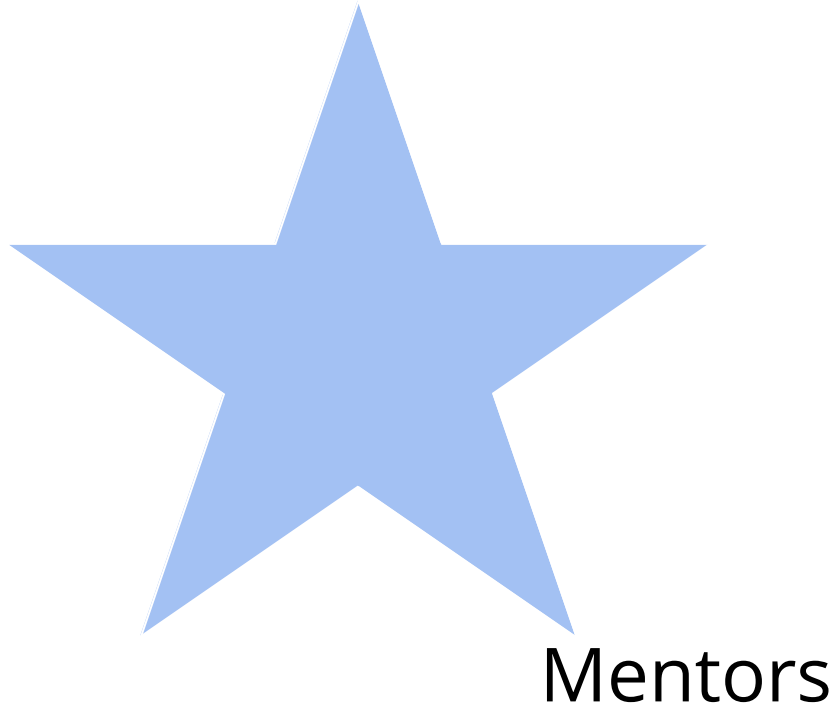


Career  
Development  
Plan



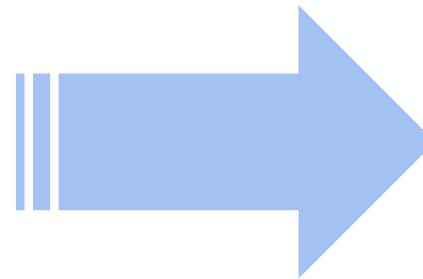
Independent  
Research  
Career

# Scored Review Criteria



## Important Proposal Docs

- Mentor(s) Statement
- Advisory Committee letters
- Mentor(s) & Advisors  
Biosketches
- Mentor's Other Support



Independent  
Research  
Career

# Your Career Development/Training Plans:

**How** will this award help you transition to research independence?

## NIH Fellowships

Applicant's Background and Goals for Fellowship Training

[SF424 \(R&R\) APPLICATION PACKAGES](#)

### 6 Pages

- a) Doctoral Dissertation and Research Experience
- b) Training Goals and Objectives
- c) Activities Planned Under this Award

## NIH K Awards

Candidate information and Goals for Career Development

[SF424 \(R&R\) APPLICATION PACKAGES](#)

4 pages (our recommendation but included within 12 pages with Research Strategy)

- a) Candidate's Background
- b) Career Goals and Objectives
- c) Candidate's Plan for Career Development/Training Activities During Award Period

# Crafting a Compelling Training Plan

01

Doctoral Dissertation  
and Research  
Experience/Candidate's  
Background

02

Training Goals and  
Objectives/ Career  
Goals and Objectives  
&  
Activities Planned  
Under this Award

03

Your Team & Referees

# a) Doctoral Dissertation and Research Experience/Candidate's Background

Answers the question **What have you done so far?**

- A personal and memorable narrative of your career moves
- Chronological
- If applicable create a personal connection to your specific area of research
- Highlight each stage of your professional training, including awards, articles, prestigious mentors, training programs or degrees you have completed, etc.
- Consistency in language, keywords, and themes to link your previous work and future interests
- End this section with a short statement about your training needs

**Do not hold back – this is not a time for modesty!**

# Personal Statement section of the Biosketch vs. Doctoral Dissertation and Research Experience/ Candidate background

- The Personal Statement in the NIH Biosketch answers **why are you the best person for the fellowship/award?**
- The Doctoral Dissertation and Research Experience/Candidate's Background answers **what have you done so far and why? Also what have you learned?**

Activity 1 #  
What have you done?  
(5 min.)

Questions?

# Crafting a Compelling Training Plan

01

Doctoral Dissertation  
and Research  
Experience/Candidate's  
Background

02

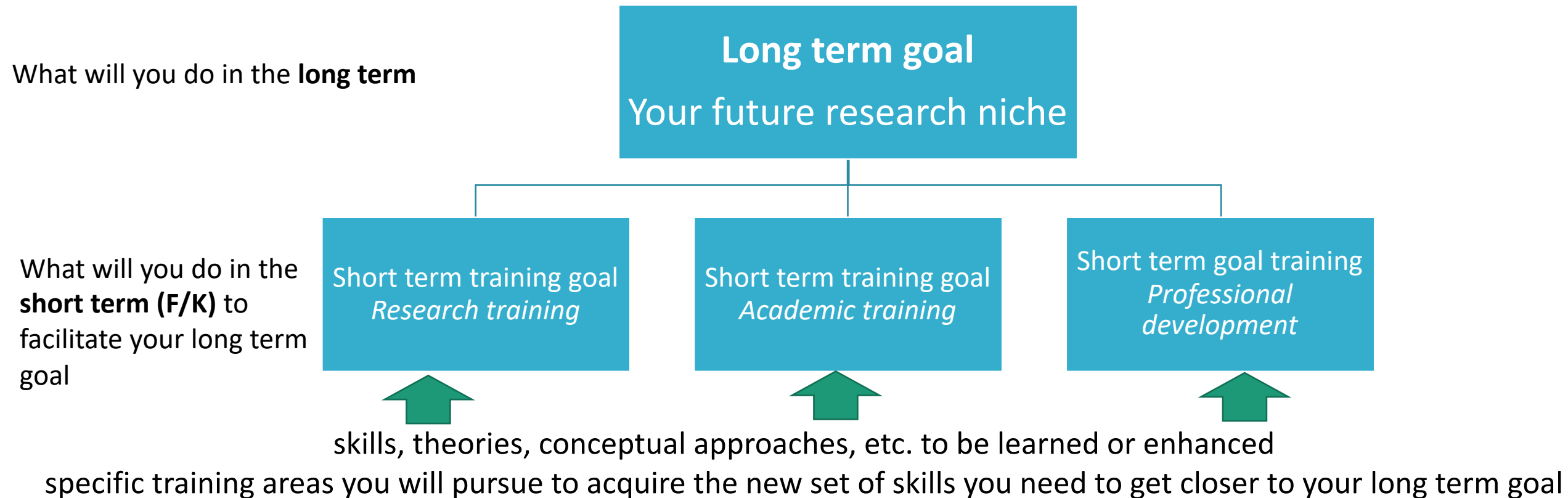
Training Goals and  
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Goals and Objectives  
&  
Activities Planned  
Under this Award

03

Your Team & Referees

# b) Training Goals and Objectives/ Career Goals and Objectives

Answers the question: **What will you do?**



# Specific Aim vs Training Goal: similarities and differences

	Specific Aim	Training Goal
<b>Title</b>	Action verb	Action verb
<b>Action verb</b>	Reflects <i>what kind of</i> research you are doing (hypothesis/descriptive)	Reflects <i>how much</i> training you need (gain, increase...)
<b>How many?</b>	2-3	3-5
<b>Stage of your career</b>	Builds your research skills with guidance from mentors* in the K99/R00 aim(s) (within the R00 phase) to be feasible for you to work independently	Alludes to <i>the stage</i> of your career this training will be needed (this proposal, your future K, your future R01)
<b>Order</b>	Poses an increase in complexity, where the most ambitious aim is listed last	Skills for the proposed project will be followed by skills that will facilitate your research independence (Research training, Academic training, Professional development)

# c) Activities Planned Under this Award/ Candidate's Plan for Career Development

## **For each goal identified attach 3-5 activities**

- Regular (weekly) one-on-one meetings with Sponsor(s)/ Mentor(s)
- Biannual meeting with advisory committee
- Courses (include course # and timeline) to study specific topics or methods
- Seminars focused on specific research areas
- Conferences to disseminate your research and initiate collaborations
- Teaching or mentoring
- Grant writing, scientific writing, and oral presentation courses or seminars
- Opportunities for gaining leadership roles
- DEI activities
- Laboratory management seminars or experiences

Explicitly state why you need these goals and activities

# Timeline

		Year	1	2	3
<b>Training Goal #1</b>  Expand skills in ...	Activity #1: Course				
	Activity #2: Lab				
	Activity #3: Workshop				
<b>Training Goal #2</b>  Develop skills in...	Activity #1				
	Activity #2				
	Activity #3				
<b>Training Goal #3</b>  Improve writing skills	Activity #1:				
	Activity #2: Submit NIH K/R01				
	Activity #3: Prepare 3 manuscripts for publication				
<b>Training Goal #4</b>	Activity #1				
	Activity #2				
	Activity #3				

To appear at the end of the documents

# Breakout Room - Activity #2

## What will you do?

(25 min.)

# Takeaway

## A Formula for Success

([Botham and Evans 2018](#))

- A strong proposal will provide a roadmap and track your progress from your current status as a trainee to your future as an independent researcher
- As a trainee you are primarily working on your mentors' projects and learning about their techniques and content areas in order to progress towards research independence, in which you develop and execute your own research program

**Current You + Training = Future You**

Questions?

# Crafting a Compelling Training Plan

01

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and Research  
Experience/Candidate's  
Background

02

Training Goals and  
Objectives/ Career  
Goals and Objectives  
&  
Activities Planned  
Under this Award/

03

Your Team & Referees

# Your Mentoring team:

## NIH Fellowships

6 pages

Sponsor and Co-Sponsor Statements

6 pages

Letters of Support from Collaborators,  
Contributors, and Consultants  
(Advisory Committee Member letters!)

Team members Biosketches

## NIH K Awards

6 pages

Plans and Statements from Mentor &  
Co-Mentor(s)

6 pages

Letters of Support from Consultants,  
Contributors, Collaborators (Advisory  
Committee Member letters!)

Team members Biosketches

Mentor and co-mentor(s) other support

# Mentor & Co-Mentor

- Research qualifications relevant for the proposed research
- Previous experience as a research mentor
- Funding support available to support the proposed research
- Committed to evaluating your progress and ensuring your transition to next career stage

\* K Awards: Mentors must confirm components of the proposed research can be taken when you transition to research independence

# Advisory Committee (2-4 members)

- Describe anticipated contributions and document their role and willingness to participate
- Describe research materials, data, guidance, or advice each person will provide
- Longer letters are considered stronger. Depending on the number of advisory committee members you will have, aim for the longest length possible for each (For example, if you have 3 advisors each of their letters may be 2 pages).
- Emphasize their commitment to you and certainty in your ability to become an independent investigator

# Letters from Referees

- At least 3 but no more than 5 (NIH requirements)
- Not directly involved in the application, but familiar with your qualifications, training, and interests

## Evaluate:

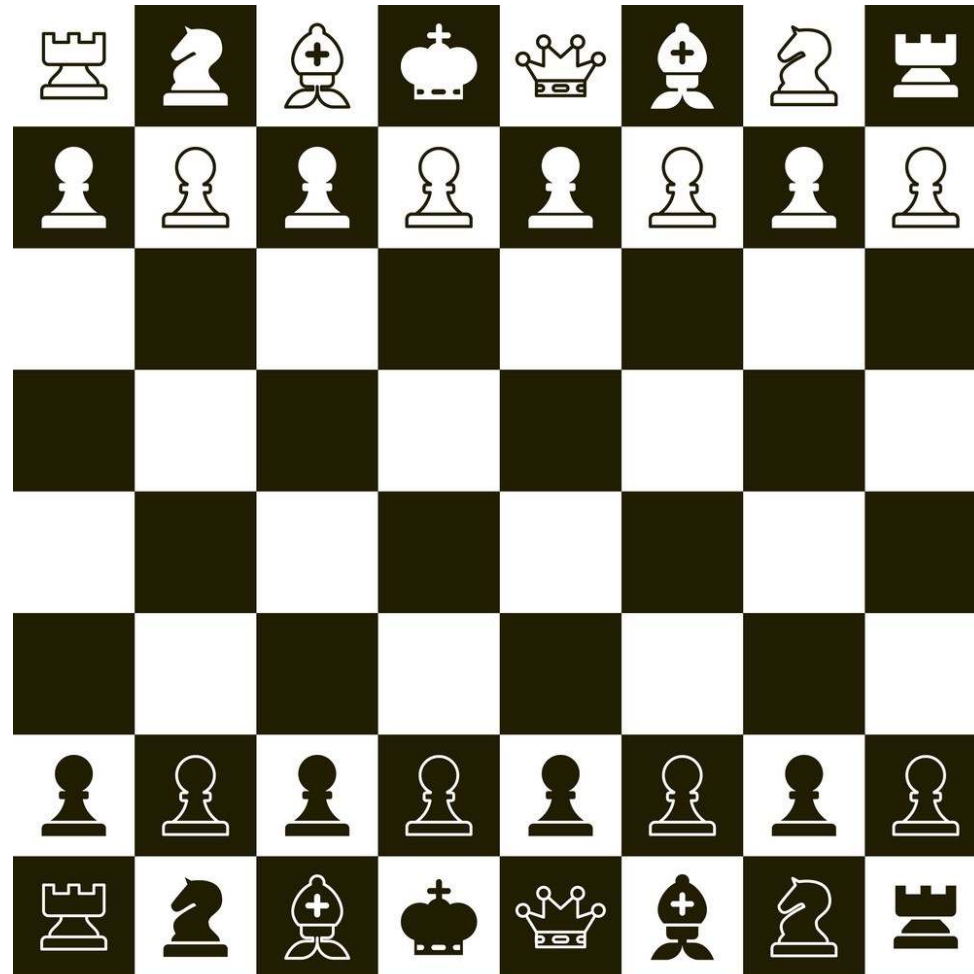
- Potential to become an independent research scientist
- Evidence of originality
- Adequacy of scientific background
- Quality of research endeavors or publications
- Commitment to health-oriented research
- Need for further research experience and training

# Breakout Room - Activity #3

## Your Mentoring Team

(15 Min.)

# Takeaway



Stanford has a wealth of opportunities for gaining research and professional skills

[Biosciences Programs](#)

[Grant Writing Academy](#)

[Office of Postdoctoral Affairs](#)

[BioSci Careers](#)

[Stanford BEAM](#) (Bridging Education, Ambition, and Meaningful Work)

[Office of the Vice Provost for Graduate Education](#) (look at Grad Grow)

[Stanford Explore Courses](#)

[Biomedical Seminar Series](#)

[Office of the Vice Provost for Teaching and Learning](#)

[SOE Technical Communication Program](#)

# Resources

- [NIH Application Guide \(SF424\)](#)
- [Criteria and Considerations for K Critiques](#)
- [How to Design a Winning Fellowship Proposal](#)
- [How to get a K award: It's not just about the science](#)
- [K Award Kiosk](#)
- [All About Grants Podcasts - Using Career Development Awards to Achieve Independence \(June 21, 2010\)](#)
- [All About the NIH K Award Workbook \(Chapter 10\)](#)
- [A Practical Guide to Writing a Ruth L. Kirschstein NRSA Grant 2nd Edition](#)

Questions?