

# Specific Aims Workshop

November 13, 2023

CFAR Developmental Core Director

Paul Goepfert, MD

CFAR Developmental Core Co-Director

Mirjam-Colette Kempf, PhD, MPH

CFAR Developmental Core Associate Director

Lynn Matthews, MD, MPH

# Agenda

9:00 – 9:25 am	<b>Welcome and Grantsmanship Tips</b>
9:25 – 9:30 am	Emerging Investigator Group Presentation
<b>Participant Presentations (12 min) followed by Q&amp;A (8 min)</b> Please fill out comment forms for participants to receive feedback on their presentations.	
9:30 – 9:50 am	William Bradford, MD <i>“Using natural language processing to improve care for inpatients with serious injection-related infection”</i>
9:50 – 10:10 am	Katia Bruxvoort, PhD, MPH <i>“Determining the impact of peer-led community-based PrEP delivery among sexual and gender minority youth in Brazil”</i>
10:10 – 10:30 am	Jessica Corcoran, PhD, CRNP, CPNP-PC <i>“Evaluating the Implementation of a Mobile Phone Application for HIV/STI Testing Among College Students at an HBCU in Alabama”</i>
10:30 – 10:50 am	Julie Schexnayder, PhD <i>“Using Life’s Essential 8 to Guide Shared Decision Making on Heart Healthy Behavior Change for People Living with HIV.”</i>
10:50 – 11:00 am	<b>Break</b>
11:00 am	<b>Box lunch available</b>
11:00 – 11:45 am	One on One Meetings with Facilitators

# Participants



William Bradford, MD



Katia Bruxvoort, PhD, MPH



Jessica Corcoran, PhD, CRNP,



Julie Schexnayder, PhD

# Facilitators

- **Emily Levitan**, DSc, MS: Public Health – Epidemiology
- **Emma Kay**, PhD, MSW: Magic City Research Institute
- **Jodie Dionne**, MD, MSPH, FIDSA: Medicine – Infectious Diseases
- **Lynn Matthews**, MD, MPH: Medicine – Infectious Diseases
- **Mirjam-Colette Kempf**, PhD, MPH: Nursing – Family, Community & Health Systems
- **Renee Heffron**, PhD, MPH: Medicine – Infectious Diseases
- **Greer Burkholder**, MD: Medicine – Infectious Diseases
- **Michael Mugavero**, MD, MHSc: Medicine – Infectious Diseases

# Grantsmanship Tips

# Specific Aims Key Tips\*

- Write this section of your grant *first*.
- Get lots of feedback on this section from your colleagues, mentors, and representatives of the funding agency
- Revise again and again!
- Note: This is different than the briefer “abstract” that is more of a summary of the proposal and is often written *last*.

# Specific Aims for NIH Applications

- Length: 1 page
- Style: Non-technical. Write this section for all reviewers / study section members, since they will all read it.
- This section must include everything that is important and exciting about your project – *but without a lot of detail.*

# Specific Aims for NIH Applications

- The flow of logic must be so clear and compelling that reviewers at the study section meeting will be able to follow it. **Tell a compelling story!**
- Together with the Significance and Innovation subsections, it is one of the most important parts of the application in terms of generating enthusiasm for your project among reviewers.
- **Most of the reviewers will only read this part of the application!**



# Suggested Template (Russell & Morrison)

- Introductory paragraph
  - compelling opening sentence, important knowns, needs/gaps in knowledge
- “What is going to be done by whom” paragraph
  - Long-term goal, overall objective of the proposal and/or central hypothesis, rationale, best team and environment to carry this out
- Specific aims and activities paragraph
  - Each aim and how you plan to achieve it
- Payoff paragraph
  - Expected outcomes, innovation, impact

# Introductory Paragraphs

- Develop a compelling argument for funding.
  - The secret to creating a compelling flow of logic in this section is to appropriately link its components, one to another.
  - **Begin with an interest-grabbing sentence** that immediately establishes the relevance of your proposal to human health.
    - Describe *the scope of the problem* (such as number of people affected, morbidity/mortality, costs to society).
    - Describe *the gap in knowledge* that your project will address (i.e., from a research perspective, what we don't know but need to know to move forward; provides rationale for specific aims).

# Introductory Paragraphs

- Develop a compelling argument for funding (continued).
  - State your *long-term goal*.
    - It should be relevant to public health and be broad enough to give the impression that this study is part of a larger research plan that will continue beyond the bounds defined in the Specific Aims.
    - It should reflect your “niche” area of research/programs (i.e., the area in which you will be the acknowledged expert).
    - It must be realistic (i.e., something that is clearly achievable over a finite period of time).
      - For example, if you are a cancer researcher, it would not be credible to write that your long-term goal is to cure cancer.

# Introductory Paragraphs

- Develop a compelling argument for funding (continued).
  - State the *objective* of this application
    - This component defines *the purpose of your application*, which is to fill the gap in knowledge identified in the 1st paragraph.
    - This must also link to your long-term goal as the next logical step along a continuum of research.
    - Emphasize the “product” of the research, not the “ process ” that produced it.
      - For example, “to study” something would not be an appropriate goal; what you want is what the study will produce.

# Introductory Paragraphs

- If your project is *hypothesis-driven*, state your central hypothesis.
  - Your central hypothesis must link to the objective, because the objective will be accomplished by testing your hypothesis.
    - The purpose of the hypothesis is to provide focus for your research project and, therefore, your grant application.
  - Tell reviewers how your hypothesis was formulated – either based on your own preliminary data or on the published work of others.

# Introductory Paragraphs

- Include a *rationale* that tells reviewers what will become possible after the research or project is completed that is not possible now.
  - The gap in knowledge discussed above will need to be addressed for the research in this field to advance.
  - Once the proposed research/project has been completed, you will be able to address this gap in knowledge – that is *why* you want to do the work.
  - This is where you can excite reviewers: the rationale can truly be exciting because it conveys that the expected outcomes will clearly advance your field.

# Specific Aims

- Each aim should consist of one sentence: be concise and concrete; *clarity* is the goal.
- Emphasize “product” over “ process. ”
- Keep the number of aims to a minimum (2-4).
- Aims should be able to “stand alone”: they can be related but must be independent (i.e., they do not depend on a particular outcome of a previous aim).
- Include rationales and methods to be used, when needed.

# Good Verbs to Use in Specific Aims:

- Examine
- Explore (if qualitative)
- Elucidate
- Evaluate
- Identify
- Compare
- Assess
- Refine



# How to Write this Section

- Russell and Morrison Grant Writing Handbook  
<http://www.grantcentral.com/workbooks/national-institutes-of-health/>
- See Chapter on Specific Aims, for a step-by-step guide to writing this section of your grant.
- Also includes examples of well written specific aims pages

# Notable Outcomes from Past Specific Aims Workshops

CFAR Investigator	Funded Awards
Pariya Wheeler, PhD	R01MH131177 Mechanisms of immune activation on neurocognitive impairments
	R21AG076377 Resilience building intervention in people aging with HIV
Crystal Chapman-Lambert, PhD, CRNP FNP-BC, ACRN (URM)	K23AT010567 Adherence to care among Black women with HIV
Saurabh Aggarwal, MD, PhD	R01DA049657 Exploring novel mechanisms in chronic pain in PWH

# Notable Outcomes from Past Specific Aims Workshops

CFAR Investigator	Funded Awards
Kaylee Crockett, PhD	K23HL156758 Adaptation and Pilot Testing a Behavioral Physical Activity Intervention with Peer Support for Women with HIV and Co-Occurring Hypertension
Samantha Hill, MD,MPH	K23MH128128 Integration of Trusted Adult Supports into the HealthMpowerment App to Improve Black Adolescent and Young Adult PrEP Use

# Notable Outcomes from Past Specific Aims Workshops

CFAR Investigator	Funded Awards
Bulent Turan, PhD	R03DA052180 Substance use, intersectional stigma, and health outcomes for women living with HIV
Michael Vinikoor, MD	R34MH122265 Re-engagement at Discharge (Re-Charge): Improving post-hospital outcomes for HIV-infected adults in Zambia

# Specific Aims Workshop

November 13, 2023

“Emerging Scientific Investigators Group”: EMERGE

CFAR Developmental Core, Associate Director

Lynn T. Matthews, MD, MPH

# Program Overview

- Monthly workshop series for a small, in-person cohort of HIV/AIDS early and emerging investigators
- Provides group-directed, facilitated sessions on becoming a successful researcher
- 8 -12 members selected per cohort
- Goals
  - Create a space for peer support and mentorship
  - Support development into independently-funded HIV investigators

# Inaugural Cohort (April 2023 – December 2023)



Anna Helova,  
DrPH, MA, MBA, MPH



Gaurav Goyal,  
MD, MBBS



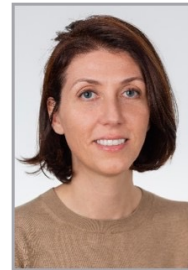
Jenni Wise,  
PhD, MS, MSN



Jessica Corcoran,  
PhD, CRNP, CPNP-PC



Jessica Jaiswal,  
PhD, MPH



Julie Schexnayder,  
PhD



Katia Bruxvoort,  
PhD, MPH



Kaylee Crockett  
PhD, MSc



Matt Gravett,  
MD



Olivia Van Gerwen,  
MD, MPH



Oluwaseyi Isehunwa,  
PhD



Ray Jones,  
PhD

# Inaugural Cohort (April 2023 – December 2023)

- 12 members
- Areas of Research
  - Substance Use Stigma/ Trust
  - Healthy Behaviors
  - Maternal/ Child health and access to care
  - HIV and comorbidities
  - Palliative Care
  - HIV Prevention/Testing/ Adherence
  - PrEP
  - Global and Domestic
  - Epidemiology
  - Behavioral Science
  - Implementation science
  - Social and Behavioral science
- Workshop Topics
  - IDP crafting and review
  - Grant writing
  - Grant writing planning
  - Time management
  - Building your team
  - Speaking / Presentation skills
  - Conferences in the HIV landscape



# Feedback

“The cohort camaraderie and environment are really great. The content of the presentations have also been very helpful.”

“I think it's been great. Food, talking shop, laughing. I love that Lynn has a plan for the hour but also makes time for us to potentially go off topic a little/chat.”

100% of participants Agree...

“Emerge has been worth my time”

“Emerge meetings are better in person”

# Upcoming Applications

- Eligibility
  - Early career investigators, post-doctoral, fellows, trainees who are actively engaged in HIV research and/or grant writing, and no R-level funding (yet!)
  - Nominations and Self-Nominations are welcome!
- Application Timeline
  - Open Jan 8<sup>th</sup>. 2024
  - Close Jan 26<sup>th</sup>, 2024

First Session March 21<sup>st</sup>, 2024

Meetings every 3<sup>rd</sup> Thursday 2:00 -4:00pm  
March 2024 – December 2024