NIH Grant Application Biosketch & Institutional Environment

What, Why, and How

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CANCER HEALTH DISPARITIES
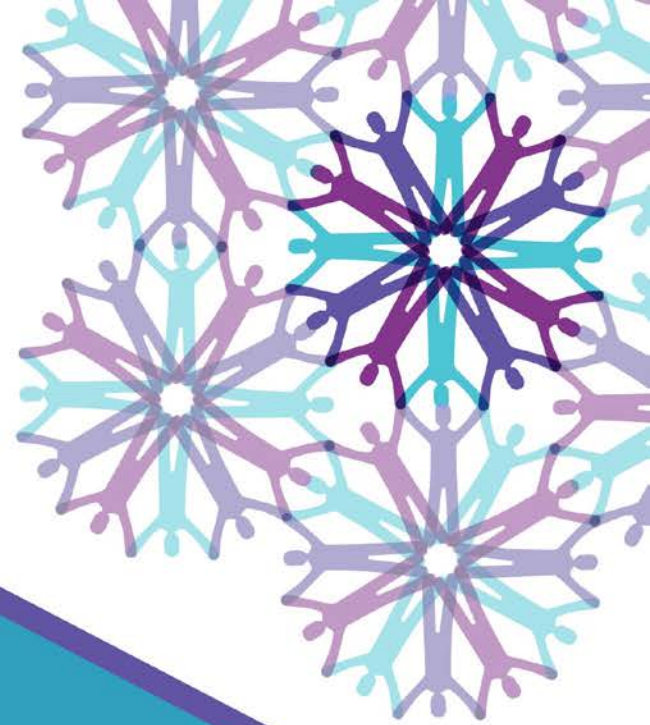
John Ojeifo, MD, PhD, MBA

Outline

Application Alignment with Review Criteria

Review Criteria

- Significance
- **Investigators**
- Innovation
- Approach
- Environment

Application Sections

- Research Aim & Purpose
- **Bio-sketches**
- Research Strategy
- Research Methods & Analysis
- Resources

Biosketch Overview

What it is and Why You Need One

What is NIH Biographical Sketch?

- Highly formatted component of a grant proposal that captures and communicates the PI's accomplishments and activities as clearly and effectively as possible

- A concise "personal narrative" of education, training, experiences, contributions, and leadership in profession/field
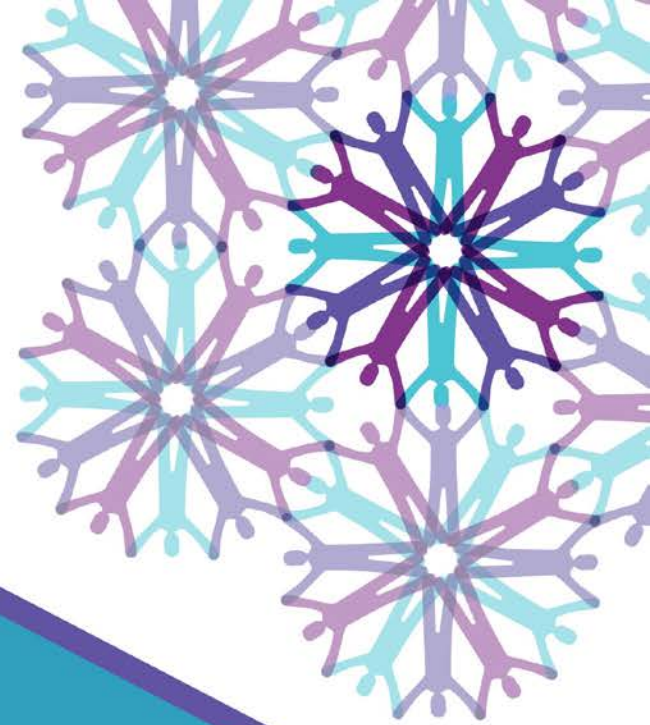
Why is the NIH Biographical Sketch Needed?

- Allows **PIs** to:

  - Highlight their education, training, experiences, and qualifications

  - Describe the magnitude and significance of scientific contributions (including publications)

  - Provide their significant contributions, relevant experiences, and/or qualifications in the context of the proposed project

- Enables <u>reviewers</u> to evaluate the qualifications and experience of the PI and scientific team that will be executing the grant
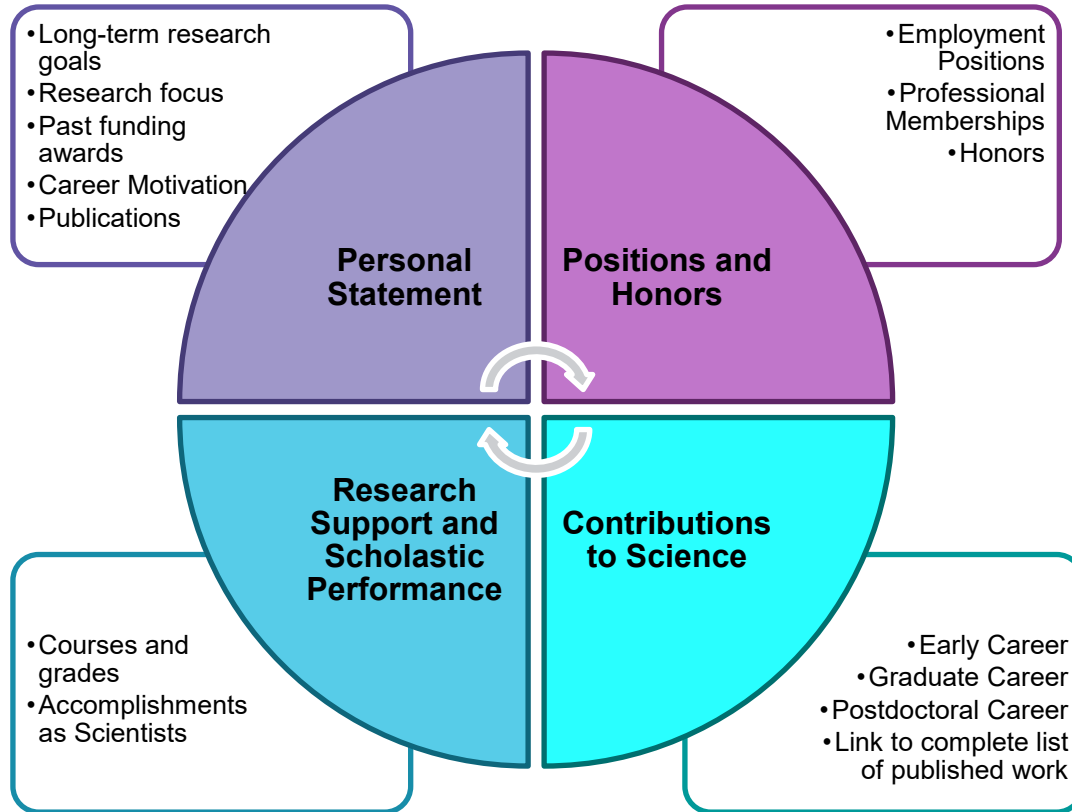
In a Nut Shell: Your Biosketch Tells Your Story

- Who you are

- What makes you great

- What contributions you have made

Biosketch Components

Biosketch Components

- Long-term research goals
- Research focus
- Past funding awards
- Career Motivation
- Publications

Personal Statement

- Employment Positions
- Professional Memberships
- Honors

Positions and Honors

Research Support and Scholastic Performance

- Courses and grades
- Accomplishments as Scientists

Contributions to Science

- Early Career
- Graduate Career
- Postdoctoral Career
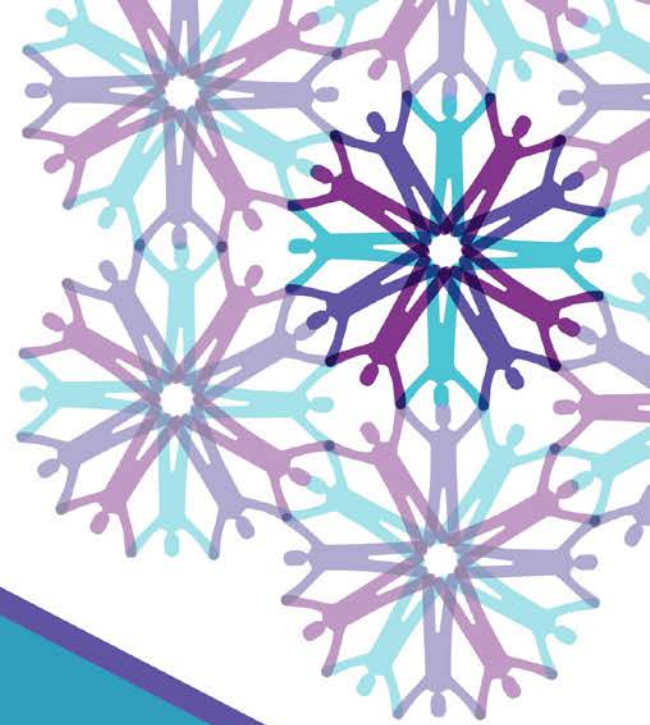- Link to complete list of published work

Question 1:

To save time, it is best to keep a "Master Biosketch" to use for all grant applications to be Submitted irrespective of the nature or type of funding opportunity announcement.
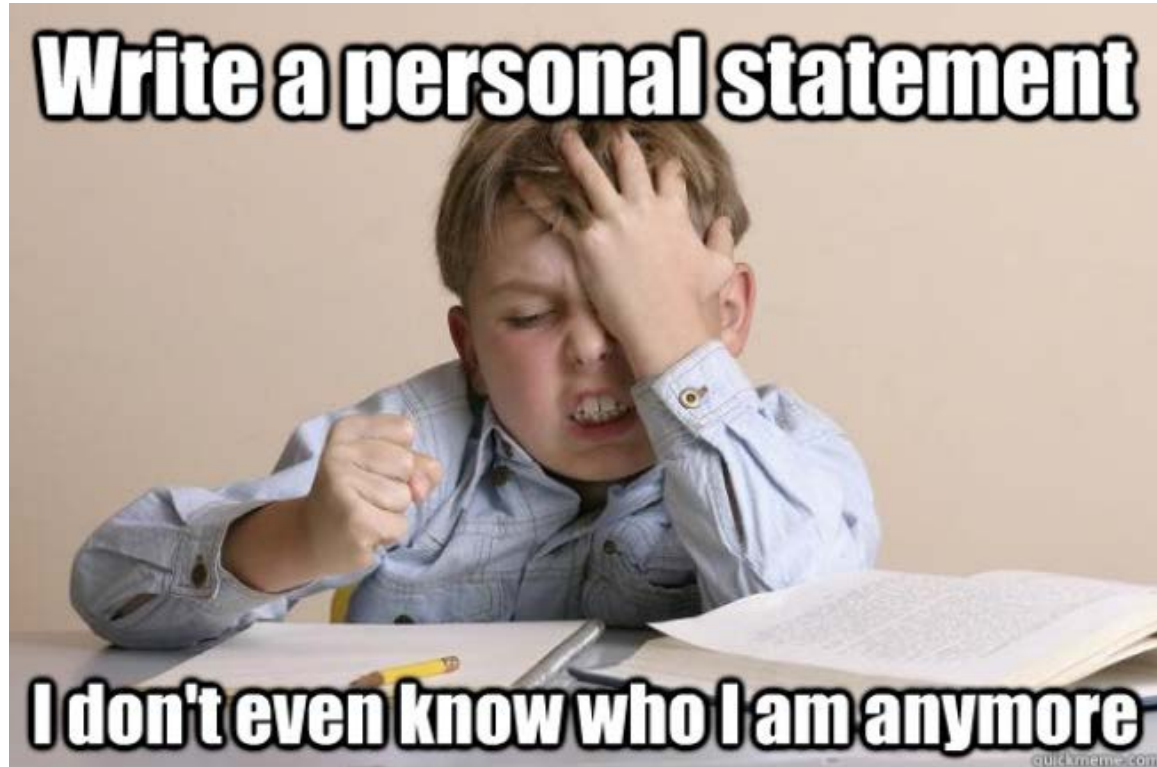
❑True

❑False

Personal Statement

NIH NATIONAL CANCER INSTITUTE

A. Personal Statement

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Personal Statement: Content

- Describe why are you well-suited for your role(s) in this project
  - Any relevant training
  - Previous work on this specific topic or related topics
  - Technical expertise
  - Collaborators or scientific environment

- Biosketch Components:
  - ✓ *Personal Statement*
  - Positions and Honors
  - Contributions to Science
  - Research Support

Personal Statement: Content (Cont.)

- If you choose, briefly explain impediments to your past scientific productivity, for example:

  - Family care responsibilities

  - Illness

  - Disability

  - Active duty military service

- You may cite up to four publications or research products that highlight your experience and qualifications

- Biosketch Components:
  - ✓ *Personal Statement*
  - Positions and Honors
  - Contributions to Science
  - Research Support

Personal Statement: Tip 1

- Craft a three-paragraph personal statement with the following subheadings:

  - Proposal Goal

  - Relevant Experiences

  - Leadership Qualifications

- Biosketch Components:

  - ✓ *Personal Statement*

  - Positions and Honors

  - Contributions to Science

  - Research Support

Personal Statement: Tip 2

- Tailor your Personal Statement to the grant application

- In the first sentence, mention the mechanism of the grant application (e.g., R01, R21, K01, etc.)

- Speak directly to the purpose of the funding mechanism and proposal goal

  - Example: My goal for this proposed R01 grant application is to conduct basic, translational, or clinical research to study … while further developing and expanding my (training and) career growth in the field of …(or as a…) or etc.

- Biosketch Components:
  - ✓ *Personal Statement*
  - Positions and Honors
  - Contributions to Science
  - Research Support

Personal Statement: Tip 3

- Sell your role in the proposed research
  - Why are you a good fit?
  - What strengths do you have for the proposal?
- Identify yourself – New Investigator – and discuss your future research direction if you are a new investigator
- Consider writing in first person and limiting your personal statement to 300–400 words (about half a page)
- If someone is mentoring/collaborating with you, include this in the personal statement

- Biosketch Components:
  - ✓ *Personal Statement*
  - Positions and Honors
  - Contributions to Science
  - Research Support

Sample of Personal Statement

The goal of the proposed research is to investigate the interaction between drug abuse and normal aging processes. Specifically, we plan to measure changes in cognitive ability and mental and physical health across a five-year period in a group of older drug users and matched controls.

I have the expertise, leadership and motivation necessary to successfully carry out the proposed work. I have a broad background in psychology, with specific training and expertise in key research areas for this application. As a postdoctoral fellow at Berkeley, I carried out ethnographic and survey research and secondary data analysis on psychological aspects of drug addiction. At the Division of Intramural Research at the National Institute on Drug Abuse (NIDA), I expanded my research to include neuropsychological changes associated with addiction. As PI or co-Investigator on several university- and NIH-funded grants, I laid the groundwork for the proposed research by developing effective measures of disability, depression, and other psychosocial factors relevant to the aging substance abuser, and by establishing strong ties with community providers that will make it possible to recruit and track participants over time. In addition, I successfully administered the projects (e.g. staffing, research protections, budget), collaborated with other researchers, and produced several peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among project members and of constructing a realistic research plan, timeline, and budget.

The current application builds logically on my prior work, and I have chosen co-investigators (Drs. AB and XY) who provide additional expertise in cognition, gerontology and geriatrics. During 2005-2006 my career was disrupted due to family obligations. However, upon returning to the field I immediately resumed my research projects and collaborations and successfully competed for NIH support. In summary, I have a demonstrated record of accomplished and productive research projects in an area of high relevance for our aging population, and my expertise and experience have prepared me to lead the proposed project

1. Hunt, MC (2004). Independent Living Among elderly. Psychology and aging, 23(4), 10-22.

Sample Personal Statement

I have the expertise, leadership, training, expertise and motivation necessary to successfully carry out the proposed research project. I have a broad background in psychology, with specific training and expertise in ethnographic and survey research and secondary data analysis on psychological aspects of drug addiction. My research includes neuropsychological changes associated with addiction. As PI or co-Investigator on several university- and NIH-funded grants, I laid the groundwork for the proposed research by developing effective measures of disability, depression, and other psychosocial factors relevant to the aging substance abuser, and by establishing strong ties with community providers that will make it possible to recruit and track participants over time as documented in the following publications. In addition, I successfully administered the projects (e.g. staffing, research protections, budget), collaborated with other researchers, and produced several peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among project members and of constructing a realistic research plan, timeline, and budget. The current application builds logically on my prior work. During 2005-2006 my career was disrupted due to family obligations. However, upon returning to the field I immediately resumed my research projects and collaborations and successfully competed for NIH support.

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2. Hunt, M.C., Jensen, J.L. & Crenshaw, W. (2007). Substance abuse and mental health among community-dwelling elderly. International Journal of Geriatric Psychiatry, 24(9), 1124-1135.
3. Hunt, M.C., Wiechelt, S.A. & Merryle, R. (2008). Predicting the substance-abuse treatment needs of an aging population. American Journal of Public Health, 45(2), 236-245. PMCID: PMC9162292 Hunt, M.C., Newlin, D.B. & Fishbein, D. (2009). Brain imaging in methamphetamine abusers across the life-span. Gerontology, 46(3), 122-145.

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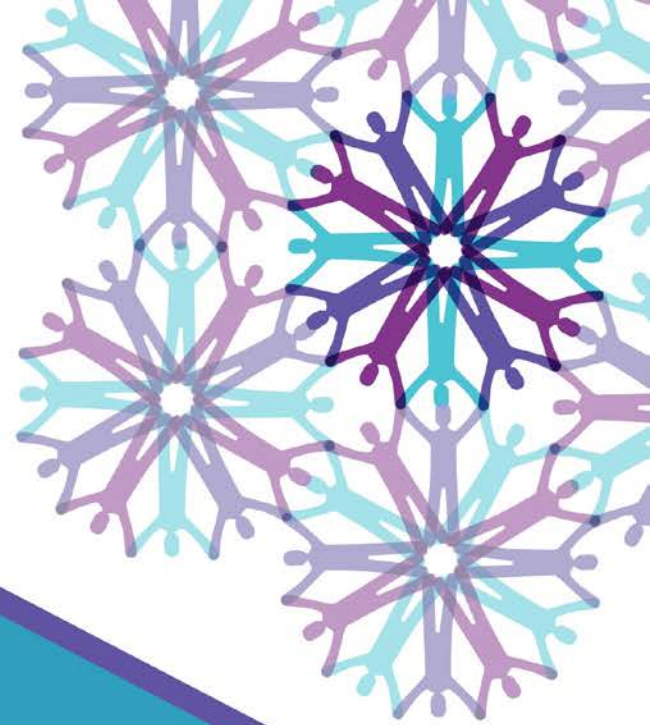
Question 2:

The following should be included in the personal statement section of your NIH biosketch: proposal goal, relevant experiences, and leadership qualifications.
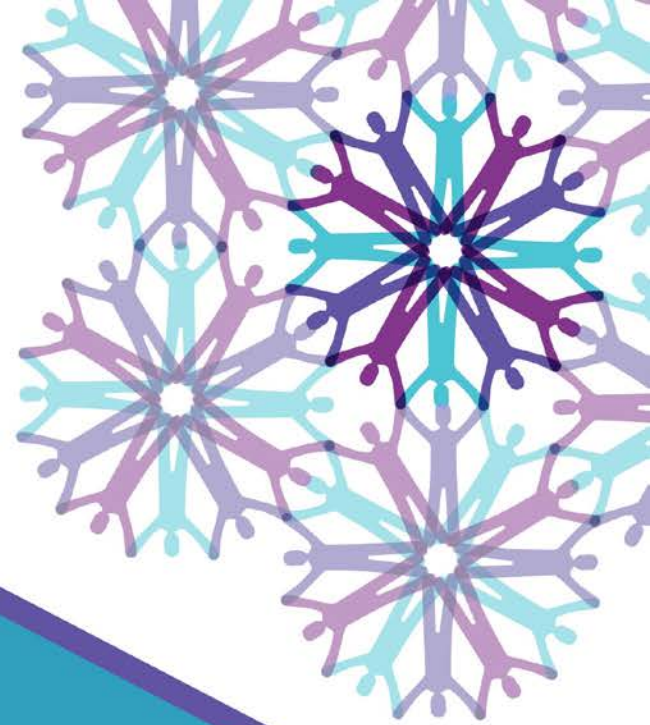
❑True

❑False

Positions and Honors

B. Positions and Honors

- You can load info into My NCBI
  - Online tool (via SciENcv) to support building/storing your personal data including linking to all your publications
- Be thorough
- Clarify what specific awards/honors were for
- Sometimes you might want to add an alternative (unique) sub-header if the grant supports it

- Biosketch Components:
  - Personal Statement
  - ✓ *Positions and Honors*
  - Contributions to Science
  - Research Support

Contribution to Science

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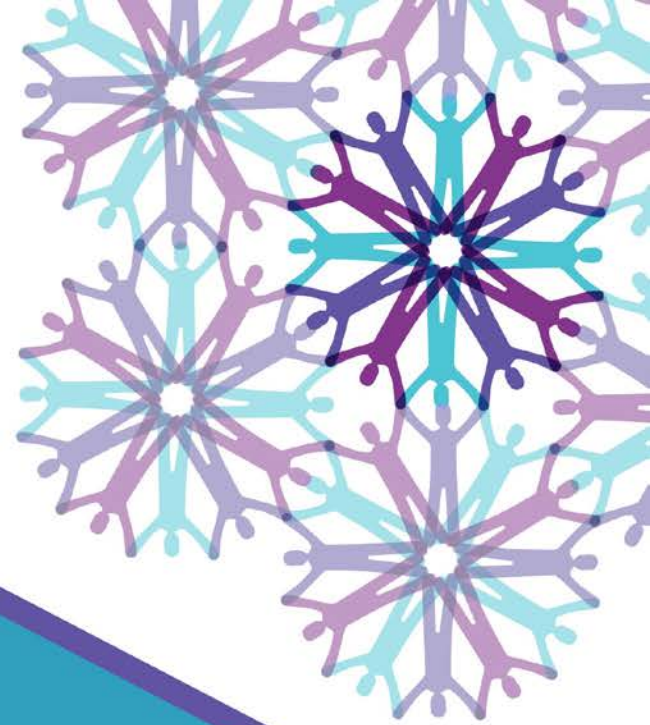
C. Contribution to Science

- **Format:**
  - Briefly describe up to 5 most significant contributions to science
  - Description of each contribution should be no longer than half a page, including citations
- **Content:** for each contribution, indicate the following:
  - Historical background that frames the scientific problem
  - Central finding(s)
  - Influence of the finding(s) on the progress of science or the application of those finding(s) to health or technology
  - Your specific role in the described work

- Biosketch Components:
  - Personal Statement
  - Positions and Honors
  - ✓ *Contributions to Science*
  - Research Support

Research Support

D. Research Support

- "Research Support" highlights your accomplishments, and those of your colleagues

- List ongoing and completed research projects from the past 3 years

- Briefly indicate the overall goals of the projects and your responsibilities

- **Do not** include the number of person-months or direct costs

- **Do not** confuse "Research Support" with "Other Support"

- Biosketch Components:
  - Personal Statement
  - Positions and Honors
  - Contributions to Science
  - ✓ *Research Support*

Resources

- Current (FORMS-D) application forms: grants.nih.goc/grants/how-to-appl-application-guide.htm

  - Important: You must use the correct forms to be eligible for funding consideration

- NIH Biographical Sketch form, instructions, and samples: grants.nih.gov/grants/forms/biosketch.htm

- SciENcv (Science Experts Network Curriculum Vitae): ncbi.nlm.nih.gov/sciencv

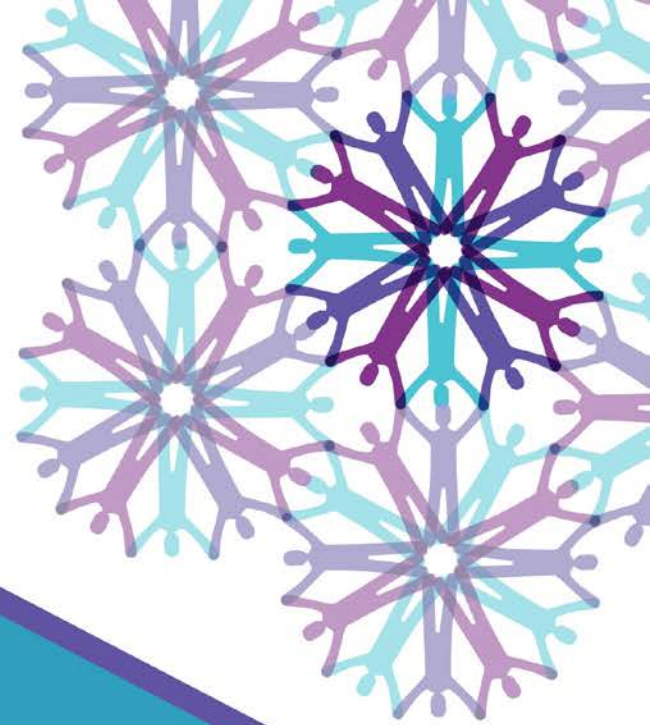- NCBI My Bibliography: ncbi.nlm.nih.gov/books/NBK53595/

The number of person-months or direct costs can be included in the "research support" section of your NIH biosketch.

☐True

☐False

Institutional Environment

Institutional Environment and Contribution to Success

- The institutional environment should be enable the candidate's proposed career development and research activities

- The institutional environment is high-quality if you can demonstrate

    - Key faculty members and other investigators capable of productive collaborations with the candidate

    - Academic and career development activities (courses, seminars, journal clubs) that will contribute to the candidate's career progression

    - Access to facilities, equipment, and resources proposed in the application

    - Highly beneficial peer-to-peer cohort interactions

Sample Description of Institutional Environment

Introduction: UNM is the most comprehensive institution of higher education in the state. UNM is one of eight designated Minority Serving Institutions in the US and one of two Hispanic Serving Institutions which is also a Carnegie Doctoral/Research Intensive University. UNM ranks 5th in the nation for numbers of Hispanic faculty (8.5%) and has high representation of underrepresented minority students in graduate and professional programs (20-25%) in the Health Sciences Center. **UNM's multicultural environment provides role models for Dr. Doe and an opportunity for her to serve as a role model to others. UNM's commitment to minority faculty recruitment and retention will provide a uniquely supportive environment for Dr. Jane Doe.**

Project Relevant facilities, equipment, Resources: The UNM Health Sciences Center is one of 25 institutions in the country with both an NCI designated P30 Cancer Center and a U54 Clinical Translational Science Center. In addition, we have one of 12 National Centers for Systems Biology and one of 8 Roadmap Screening Centers. **These centers offer pilot funds, discounted fees on the use of core facilities, equipment, resources, and a research environment that is highly supportive for conducting cutting edge research.**

Seminars and Research Groups. **A weekly seminar, entitled "The Cellular and Molecular Basis of Disease", features distinguished scientists in a wide variety of fields. This series affords trainees and faculty to meet with preeminent scientists, keep abreast of new areas of research and build career networks**. A weekly Clinical Translational Science (CTS) Series features weekly speakers during the academic year on projects, which are clinically relevant and highly translational.

- This section should be 1 page

Question 4:

The institutional environment should include information about access to facilities, equipment and resources proposed in the application.

❑True

❑False

Questions?

National Cancer Institute

Department of Health & Human Services · USA

NIH National Cancer Institute

cancer.gov/crchd