

Celebrating the One Year Anniversary of the New NIH Biosketch

April 11, 2016

Pediatric Research Alliance
K-CLUB



Upcoming Events

- **Learn the nuts and bolts of the new NIH Rigor and Reproducibility requirements**
Thursday, 4/21/16 at 12 p.m. in room 317, Woodruff Memorial Building. This April Research Resources 101 workshop will provide participants with information about the importance of reproducibility in research, the motivation behind the new NIH guidelines, and strategies to effectively address the new guidelines on grant applications.
- May 9th K-Club also will address NIH Rigor and Reproducibility from the reviewer perspective

Special Thanks

K-Club Sponsors

- Emory+Children's Pediatric Research Center
- Emory Department of Medicine
- ACTSI
- CFAR

New Biosketch Examples

- Gary Miller, PhD
- Sue Ellen Abdalian, MD
- Paul Spearman, MD

Why are we here today?

Flashback...

What was the scientific community's reaction last year in anticipation of the changes in the New NIH Biosketch that was mandatory starting in May 2015?



Comment from Rock Talk: *Spring 2015*

Anticipatory comments were largely negative, except for maybe this one...

“As a science fiction and grant writer, this new NIH biosketch format should generate lots of new business for me. I specialize in the sections that nobody wants to write and fewer folks want to review.”



Almost one year later...

What is the consensus?



Applicant Comments



- I actually enjoyed it and found that it established a stronger overall rationale and direction for my career's work, and therefore strengthened the application.
- For me it gives me the chance to explain some of the collaborative (co-author pubs) clinical research that I am involved in more directly.
- I used it as a chance to brag that one of my papers has been cited almost 400 times (not sure if mentioning this was a good idea or not).

Applicant comments, cont.

The New Biosketch Format let me show:

- 1) Many of my prior publications could actually be grouped together as a common theme or umbrella concept. Thus, my prior work could actually be sold as being more impressive as a complete body of work rather than as a series of single publications in isolation
- 2) I was able to highlight specific publications that were in line with the grant application RFA

But, what do the reviewers think?

- As a reviewer I do not find the new format useful at all. Actually I think it hinders my evaluation and I've ended up having to spend way more time evaluating each investigator through their full online bibliography (which only about 50% of the new bioSketches bothered to add a link to) or PubMed.
- No reviewers are gonna do anything more than superficially skim this gibberish. It is much more useful to go to PubMed and view the real chronological arc of the PI's scientific contributions.



Panelists for Today's Discussion

- **Lou Ann Brown, PhD**, Prof of Pediatrics, (Neo)
- **Gary Miller, PhD** Professor of Environmental Health
- **Russ Price, PhD**, Professor of Medicine, (Nephrology)
- **Paul Spearman, MD**, Professor of Pediatrics, (ID)

Brief NIH Biosketch Review & Overview

Just so we are on the same page...



An NIH Biosketch...

Is a highly formatted component of a grant proposal that enables reviewers to evaluate the qualifications of the PI and scientific team that will be executing the research project.

OMB No. 0925-0001/0002 (Rev. 08/12 Approved Through 8/31/2015)

BIOGRAPHICAL SKETCH
Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Hunt, Morgan Casey

eRA COMMONS USER NAME (credential, e.g., agency login): huntmc

POSITION TITLE: Associate Professor of Psychology

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of California, Berkeley	B.S.	05/1990	Psychology
University of Vermont	Ph.D.	05/1996	Experimental Psychology
University of California, Berkeley	Postdoctoral	08/1998	Public Health and Epidemiology

A. 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.

- Merryle, R.J. & Hunt, M.C. (2004). Independent living, physical disability and substance abuse among the elderly. *Psychology and Aging*, 23(4), 10-22.
- 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.
- 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. PMID: PMC9162292 Hunt, M.C., Newlin, D.B. & Fishbein, D. (2009). Brain imaging in methamphetamine abusers across the life-span. *Gerontology*, 46(3), 122-145.

B. Positions and Honors

Positions and Employment

1998-2000 Fellow, Division of Intramural Research, National Institute of Drug Abuse, Bethesda, MD
2000-2002 Lecturer, Department of Psychology, Middlebury College, Middlebury, VT

Sections of the **NEW** NIH Biosketch Required as of **May 25, 2015**

Heading: **About yourself**

Name, eRA commons, Position, Education & Training

A. Personal Statement – *including new allowance for citations*

B. Positions and Honors

C. Contribution to Science

D. Research Support

**About your research and
your role in that research**

What was new last year?

Format Changes in a Nutshell:

1. Extended page limit from four to five pages
2. Allowed listing publications both in the **personal statement** and **contribution to science section**
3. Allowed researchers to describe up to five of their most significant **contributions to science**
4. Option to include a **link to full list of published work**
5. Access to a **tool to help build the New Biosketch**



Some recent fine tuning:

For applications due 5/25/16 and after

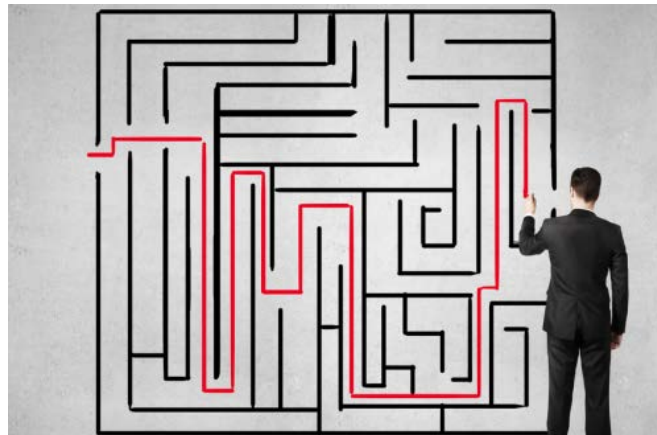


- URL for a publication list is still optional but, if provided, must be to a government website (.gov) like My Bibliography.
- Allow publications (peer-reviewed and non-peer-reviewed) and research products to be cited in both the personal statement and the contribution to science sections
- Graphics, figures and tables are not allowed.
- Option to add other names used to author research products in section A.
- Research products can include conference proceedings such as meeting abstracts, posters, or other presentations.
- Research products that are under development, such as manuscripts that have not yet been accepted for publication, can be mentioned in the narrative sections. However, they cannot be cited as one of their citations.

Know Your Reader/Audience

Your reader/audience is **the reviewer**

- Use the biosketch strategically to lead the reviewer through your career.
- Spoon feed reviewers to allow them to easily understand who you are and what you are capable of accomplishing.
- Put into context what you've already accomplished and how it positions you perfectly to lead the proposed aims in this grant application.
- The best predictor of future behavior is past behavior.



CSR Advice to Applicants on the New NIH Biosketch

- Read the instructions and use the new biosketch format.
- Be objective -- Don't oversell or undersell yourself.
- Make sure your claims are backed up by your publications.
- Don't stuff your biosketch with data and information that do not belong there.
- Take advantage of the option to provide links to your publications via [SciENcv](#) or [My Bibliography](#).
- Relax if you are a new investigator: the new requirement can only help you, since study sections cluster the reviews of new investigator R01 applications.

Bottom Line: List only pertinent information in your biosketch, and know your application could be withdrawn if you don't use the new biosketch format.

Reviewer Guidance from CSR

- When reviewing biosketches, reviewers are told to:
 - Take the time to read biosketches -- they could save time in assessing an investigator's contributions.
 - You may factor an uninformative biosketch into your scoring if it hinders your ability to assess the investigator.

We'll soon hear from our esteemed reviewers to find out how much the Biosketch has been used in review and how it helps/hinders the review process and the final impact score.

Sections of the NIH Biosketch

Heading: **About yourself**
Name, eRA commons, Position, Education & Training

A. Personal Statement

B. Positions and Honors

C. Contributions to Science

D. Research Support

A. Personal Statement

Briefly describe why you are well-suited for your role(s) in this project. The relevant factors may include: aspects of your training; your previous experimental work on this specific topic or related topics; your technical expertise; your collaborators or scientific environment; and/or your past performance in this or related fields.

You may cite up to four publications or research products that highlight your experience and qualifications for this project.

Definition of a Research Product

Research products can include audio or video products; conference proceedings such as meeting abstracts, posters or other presentations; patents; data and research materials; databases; educational aids or curricula; instruments or equipment; models; protocols; and software or netware.



A. Personal Statement

Note the following additional instructions new for applications submitted

May 2016 and beyond:

- For...institutional career development...grant applications, faculty who are not senior/key persons are encouraged to complete this section, but not required to do so.
- Indicate if you have published or created research products under another name.
- You may mention specific contributions to science that are not included in Section C. Do not present or expand on materials that should be described in other sections of this biosketch or the application.
- Figures, tables and graphics are not allowed.

Personal Statement: Suggested Approach



- Length – Should aim for 1/2 page and not exceed 1 page
- As before, CUSTOMIZE this for each new grant application (imp for PI and all key personnel) so that it speaks *directly* to this particular grant proposal
- Sell your role in the proposed research & speak to the type of funding mechanism connecting it to your goals
- Be accessible – you may use 1st person writing
- Be aspirational. Show excitement/passion for your research
- If referencing impediments, be brief and non dramatic

Personal Statement Example – Use of 1st person and aspirational

Excerpt from Sue Ellen Abdalian, MD,

Professor of Clinical Pediatrics, Tulane University School of Medicine

A. Personal Statement

The Adolescent Medicine research teams assembled by me have demonstrated the ability to successfully support rigorous research, our research volunteers and each other over years of endeavor. This was evident when the work was punctuated by a hurricane disaster that emptied the entire city, closed every single clinical site, community agency, Charity Hospital, Tulane Hospital and displaced all of our community for months to years while also creating widespread homelessness. Research staff and I worked tirelessly to retain study integrity in the face of personal disaster and loss, to close studies, and then to rebuild clinical sites, expand our homeless clinic to serve both homeless and domiciled youth in a city with a dearth of physician offices, help rebuild the community of youth-serving agencies while newly recreating an actively recruiting research site.

Personal Statement Example

Inclusion of peer reviewed citations & other highlights

Excerpt from Gary Miller, PhD Biosketch

A. Personal Statement –Identify up to four peer-reviewed publications that specifically highlight your experience and qualifications for this project.

I have also been helping lead an initiative on the concept of the exposome, the environmental equivalent of the human genome. The exposome has been prominently featured in the strategic plan of NIEHS and I lead the first NIH-funded center on the topic. Our center has been providing key scientific leadership to this emerging concept through a variety of mechanisms.

- a. **Miller GW**, Jones DP. The nature of nurture: refining the definition of the exposome. *Toxicological Sciences*, 2014
- b. **Miller GW**. The Exposome: A Primer. 2014. Academic Press, Elsevier (first book on the exposome)
- c. An Introduction to the Exposome, Continuing Education Workshop presented at the 2015 Society of Toxicology Annual Meeting. **Miller GW**, Chair
- d. I develop and maintain the website for the Human Exposome Project



This was a creative liberty listing highlights that aren't publications, but now it is specifically allowed

Personal Statement: Reviewer Response

Panelist thoughts?

- Examples of +/- scores based on Biosketches of PI's, mentors, collaborators.
- Do you look for the non PI personnel to explicitly state their role/responsibilities in this section? What do you think of the new allowance for non key personnel to not use the personal statement in K applications?
- Is length of the personal statement important?
- Pet peeves?
 - Not following format guidelines to a “T”? Ex – 5 instead of 4 citations
 - Generic personal statements?

Sections of the NIH Biosketch

Heading:

Name, eRA commons, Position, Education & Training

A. Personal Statement

B. Positions and Honors

C. Contribution to Science

D. Research Support



**About your research and
your role in that research**

Section C. Contributions to Science

Describe up to 5 of your most significant contributions to science, and for each of these:

- indicate the historical background that frames the scientific problem;
- the central finding(s);
- the influence of the finding(s) on the progress of science or the application of those finding(s) to health or technology; and
- your specific role in the described work

Within Each of the Contributions

- Each of the 5 ‘contributions’ can be no more than 1/2 page each including citations
- You may cite up to four papers accepted for publication or research products that are relevant to the contribution.
- These citations do not have to be authored by you.
- You may provide a URL to a full list of your published work. **This URL must be to a Federal Government website** (a .gov suffix). NIH recommends using [My Bibliography](#). Providing a URL to a list of published work is not required, and reviewers are not required to look at the list.

Contributions to Science: Suggested Approach

- Group your papers by theme or subject, as opposed to chronological order.
- Give a short description of the relevant atmosphere surrounding them (the state of the literature before your work, your role in the research, health impact, interesting applications, etc).
- Make it useful and coherent for the reviewer.
- Some ideas
 - ✓ In your previous research experiences, what did the team do and what exactly did you do?
 - ✓ What did you learn from what you did?
 - ✓ Reflect on what you found and how it may have led to the current proposal.

Contribution to Science Example

Excerpt from Gary Miller, PhD Biosketch

2) Role of plasma membrane monoamine transporters response to psychostimulants

During postdoctoral training in the Caron laboratory I was able to contribute (as co-author) to several important papers on monoamine transporters, which were based on novel mouse gene knockout models including, dopamine transporter, the norepinephrine transporter, and the vesicular monoamine transporter. These papers have been very influential in our understanding of the function of these transporters.

- a. Wang YM, [Gainetdinov RR](#), Jones SR, [Fumagalli F](#), Xu F, Bock CB, **Miller GW**, and Wightman RM, Caron MG. (1997) Knockout of VMAT2 results in neonatal death and hypersensitivity to cocaine and amphetamine. *Neuron*. 19: 1285-1296. PMID: 9427251
- b. Rocha B, [Fumagalli F](#), [Gainetdinov RR](#), Jones S, **Miller GW**, Caron MG. (1998) Cocaine self-administration in mice lacking the dopamine transporter. *Nature Neuroscience*, 1:132-137. PMID: 10195128.
- c. Xu F, [Gainetdinov RR](#), Wang YM, Jones SR, **Miller GW**, [Wetsel W](#), and Caron MG. (2000) Mice lacking the noradrenergic transporter (NET) are supersensitive to psychostimulants. *Nature Neuroscience*, 3:465-471. PMID: 107693862.
- d. **Miller GW**, [Gainetdinov RR](#), Levey AI, and Caron MG. (1999) Dopamine transporters and neuronal injury. *Trends in Pharmacological Sciences*. 20: 424-429. PMID: 10498956.

Contribution to Science Example

Excerpt from Paul Spearman, MD, Biosketch

Development of novel HIV vaccines, including virus-like particle vaccines

My laboratory is engaged in the design and testing of new live vector HIV vaccines and virus-like particle vaccines against HIV. Despite more than 25 years of effort, the world lacks an effective HIV vaccine for HIV prevention. Our approach to this problem is to continue to explore new vaccine designs that can generate potent neutralizing antibodies and mucosal immune responses. We have pioneered production systems for large-scale generation of authentic HIV virus-like particle (VLP) vaccines. Ideally we think these products will serve as effective boosters to enhance the breadth of neutralizing antibodies against native forms of the envelope glycoprotein. One of our primary projects in this area is studying parainfluenza virus type 5 (PIV5) - based HIV vaccine live vectors, applying them mucosally in primate models and following up with a VLP boost. Linked in with this is the performance of human trials of current industry-based HIV vaccines and analysis of the immunogenicity of these products, from which we learn how to design improved vaccines.

1) Hammonds J, Chen X, Fouts T, DeVico A, Montefiori D, Spearman P. 2005. Induction of neutralizing antibodies against human immunodeficiency virus type 1 primary isolates by Gag-Env pseudovirion immunization. *J Virol* 79(23):14804-14814. PMID: PMC1287556

... (plus 3 more references)

Contributions to Science: Appropriate # to List

- While all applicants may describe up to five contributions, graduate students and postdoctorates are encouraged to consider highlighting two or three they consider most significant. Descriptions may include a mention of research products under development, such as manuscripts that have not yet been accepted for publication.

Panelist Input:

Do reviewers pay attention to quality vs quantity and expect a certain number of contributions (no more and no less) based on career stage?

Contributions: Relative to What?

Panelist Input

- Are reviews turning into person versus project based assessments?
- Do reviewers make judgement calls on what they consider significant and criticize if an applicant lists something menial?
- What if the contributions are unrelated to the current proposal? Are there suggested strategies for junior investigators to list unrelated contributions?
- Is there a trick to balancing depth (relevant to current application) vs breadth (important/impactful citations from irrelevant topics)
- Is it useful to indicate a context of importance? e.g. “This shows my ability to design and accomplish a research study...”

Contributions to Science: Citations

May cite up to four papers accepted for publication or research products that are relevant to the contribution.

Panelist Input

- Should # citations, impact factor be included?
- What non publication types of accomplishments are appropriate and meaningful to cite?
- Examples of appropriate citation when not authored by applicant?
- What about website urls? As a reviewer, do you access them?

Contributions to Science: Formatting Liberties

- **Bold** your name in the author list.
- Give each contribution to science a meaningful title.
 1. Cured Cancer.
 2. Developed safe and effective Ebola Vaccine.
 3. Won Nobel Prize.

Panelist Input

How important do you find formatting? Have you seen strategies that work particularly well and maybe some that don't?

Adapted from the Knoepfler lab stem cell blog

Contribution to Science: Humility vs. Arrogance

- Extraordinary claims require extraordinary evidence
- The magnitude of your supposed accomplishment must align with your tangible contributions
- Do not misrepresent any facts
 - List all publications as they would appear in any searchable database



Contribution to Science: Reviewer Response

Panelist Input

- How have study sections reacted to the propaganda aspects of this new format? Do they get annoyed if someone sounds like they are bragging?
- General pet peeves?
 - Link to publications absent or not working
 - Exaggeration of role/impact of finding
 - Too many/not enough contributions listed based on career stage of applicant

The New Biosketch As a Whole: Reviewer Response

Panelist Input

- Is this new format overall a burden or useful?
- Which sections do you focus on the most?
- Examples of +/- scores based on Biosketches of PI's, mentors, collaborators
 - Can applicants deviate from the stated instructions with impunity?
 - Can select use of formatting help?
- Consequence of other Key Personnel Biosketches not in correct format
- How much repetition between the personal statement and contributions of science sections do you tolerate?

An assessment of the tools to help you

- **My NCBI**
- **My Bibliography**
- **SciEncv**



My NCBI, My Bibliography & SciEncv

NCBI - National Center for Biotechnology Information

- Part of the NIH and the National Library of Medicine, and the institution that manages PubMed
- For all individuals who apply for, receive or are associated with research investments from federal agencies.
- Supports and distributes a variety of databases for the medical and scientific communities
- Through My NCBI, includes access to other features including **My Bibliography collection & SciENCv professional profile service**

My Bibliography

- Found within My NCBI
 - Use of My Bibliography helps to report compliance to eRA Commons and using SciENcv to create BioSketches
 - A reference tool that helps you save your citations directly from PubMed or, if not found there, to manually enter citations using My Bibliography templates
 - My Bibliography provides a centralized place where citations are easily accessed, exported as a file, and made public to share with others

SciENcv: Science Experts Network Curriculum Vitae

Science Experts Network Curriculum Vitae (SciENcv),

- A system that allows you to enter your biographical data once and convert it into biosketches that can be used with both NIH or NSF grant applications and annual progress reports.
- Need My NCBI account to use
- Use of SciENcv helps with creating Biosketches
- **Panelist experiences?**

Instructional Video:

<https://www.youtube.com/watch?v=PRWy-3GXhtU&feature=youtu.be>

Tools to build your new Biosketch

NIH Notice: NOT-OD-15-032

FAQ's: http://grants.nih.gov/grants/policy/faq_biosketches.htm

Final Thoughts for New Biosketch

- Read and understand the new guidelines
- Sketch out your accomplishments (dedicate time for reflection)
- Discuss in mid-size groups within your discipline
- Work with peers and mentors to share, review, and exchange ideas
- Revise, revise, revise



Appendix Materials

Helpful links and resources when creating your Biosketch

NIH Links

- NIH form pages and instructions:

<http://grants.nih.gov/grants/funding/424/index.htm>

- NIH FAQ Page:

http://grants.nih.gov/grants/policy/faq_biosketches.htm

- Changes as of May 25, 2016 deadline:

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-080.html>

Other Links

SPH Compilation of New NIH Biosketch Resources

<http://www.sph.emory.edu/research/grant-writing-tools/index.html>

Pedsresearch.org Compilation of New NIH Biosketch Relevant Notices/Links

<http://www.pedsresearch.org/research/resources/career-development/nih-biosketch-relevant-notice-links>

NIH CSR Peer Review Notes January 2016

<http://public.csr.nih.gov/aboutcsr/NewsAndPublications/PeerReviewNotes/Pages/Peer-Review-Notes-Jan-2016Part3.aspx>

Penn State College of Medicine Research Concierge Service

<http://www2.med.psu.edu/researchconcierge/frequently-asked-questions-faqs/>

Instructions

- There are **3** sets of **Instructions and Samples**
 - General
 - Predoctoral Fellowship
 - Postdoctoral Fellowship
- There are **2** new **Blank Format Pages**
 - General biosketch
 - Fellowship biosketch
 - (predoctoral and postdoctoral use same page)
- All can be found here:
<http://grants.nih.gov/grants/funding/424/index.htm>



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My NCBI – New NIH Biographical Sketch Available in SciENCv

Hutcherson L. My NCBI – New NIH Biographical Sketch Available in SciENCv. NLM Tech Bull. 2015 Jan-Feb;(402):e2.

2015 January 14 [posted]

2015 January 20 [[Editor's note added](#)]