Building a Strong Mentoring Environment: The Big Picture

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The Key Messages

Leadership really matters to set the local ‘culture’ around mentorship

Normalize expectations of high quality mentorship:
“Why on earth would we NOT want to make sure we are effectively mentoring our trainees and junior colleagues?”

If there is the will, there is a way

Change the dynamic to shared responsibility

Equal emphasis on helping trainees develop highly effective mentoring skills - mentoring up and down

Potentially expect LESS of mentors - complement mentoring with structured teaching and learning
Leadership really matters…

Dean’s voices are nice for setting expectations, but Chairs often impact local culture and behavior more – “One of us” vs. “somebody says…”

Chairs can have huge impact on culture and behavior

The combo of chairs, influential faculty and training leaders is especially valuable

Reset ‘normal’ - “Why on earth would we NOT want to make sure we are effectively mentoring our trainees and junior colleagues?”

A big potential reset – research mentoring is a privilege and responsibility, not a rite – there is a real evidence-based bar to achieve the privilege …being awarded a T32 spot is like being awarded a $100K grant with true evaluation
If there is the will, there is a way

The Will - An altruistic, desire to be an effective or better mentor works for many.
For others...How much time would you invest to...

• ...avoid 1 serious complication in a mentoring relationship leading to hours of difficult conversations, conflict and lost research time?
• ...improve the efficiency of your research group by avoiding miscommunications and misunderstandings?
• ...enable a mentee to take more responsibility for their own scientific development?

Oh, and by the way, NIGMS sees mentoring skills as something to develop, and provide assurance that relationships are sound and serving the mentee...
If there is the will, there is a way

The way…“Entering Mentoring” and “Entering Research” - well established and tested with real research methods

There may be others I am not aware of

Shifting from “We don’t know how to do it” to “This is not a big deal – thousands have done it with overall very positive evaluations/reactions”

Equal emphasis on helping trainees develop highly effective skills - mentoring up and down

CIMER - [https://cimerproject.org/](https://cimerproject.org/)

New approaches to Culturally Aware Mentoring
The Science of Effective Mentoring in Science, Technology, Engineering, Medicine, and Mathematics (STEMM)

The quality, vigor, and innovation of the U.S. science, technology, engineering, mathematics, and medicine (STEMM) enterprise depend on increasing the diversity of individuals, research teams, and leadership in STEMM fields. This in turn requires the advancement of women, individuals from racial/ethnic groups historically underrepresented in STEMM, and first-generation students at the undergraduate and graduate levels. Effective, high-quality, and sustainable mentoring relationships for diverse individuals across career stages are essential in supporting student success (e.g., performance, persistence) in STEMM fields, especially for many members of these historically underrepresented populations.

While access to and engagement with a strong mentor are known to be critical factors in the academic and career development of undergraduate and graduate students in STEMM, there has not been adequate attention to ensuring that mentors and mentees are educated and trained with the evidence-based knowledge and skills necessary to ensure highly productive and sustainable mentoring relationships. It is increasingly clear that successful mentoring relationships can be nurtured using existing and emerging research on the characteristics, competencies, and behaviors identified for being effective mentors and mentees. What is missing is a systematic compilation and analysis of the current research on mentorship in STEMM as well as a practical resource guide that enables mentoring practitioners—institutions, departments, programs, and individual faculty members—to create and support viable, sustainable mentoring support systems. This study proposes to address these two gaps.

STATEMENT OF TASK

Under the auspices of BHEW and CWSEM, and in collaboration with BOSE, an ad hoc committee will conduct a study of STEMM (science, technology, engineering, mathematics, and medical) mentoring programs and practices at the undergraduate and graduate levels. The study will have a particular focus on identifying evidence (or lack thereof) regarding successful programs for mentoring of individuals traditionally marginalized in STEMM fields, including women, individuals from racial/ethnic groups historically underrepresented in STEMM, and first-generation college students. Guiding questions for the study will include the following:

- What are common definitions and differentiations among the various models of mentoring in STEMM?
- What are the most successful elements of effective mentoring relationships in STEMM education at the various stages of career development?
- How can and should mentees and mentors be trained to be more effective in the mentor-mentee relationship?

The committee will issue a final report and also create an online interactive guide of effective programs and practices that can be adopted and adapted by institutions, departments, and individual faculty members.
Change the dynamic to shared responsibility

What if research mentoring was recast as:

“A mutually constructed relationship between mentor and mentee with shared responsibility for its success”

Needs of mentor and mentee are made expressly visible and considered, but the needs of the mentee must be in the forefront

As much attention given to mentees acquiring skills for effective relationships as mentors – mentees learn to mentor UP as well as DOWN – managing their mentoring relationships
“Mentoring Up”: Learning to Manage Your Mentoring Relationships

Steven Paul Lee, Richard McGee, Christine Pfund, and Janet Branchaw

Research mentoring relationships are critical for academic and professional success, yet vary considerably in their effectiveness.¹ This variability is often attributed to the ability of the research mentor to shape and guide the
Ask LESS of mentors…

From perspective of developing scientific talent, save the time of mentors for things only they can do

Shift to a teaching and learning mindset/model for skills that can often be taught more efficiently and effectively less tied to mentoring

Engage experts in areas mentors can’t be expert

Premise behind many of the changes in the NIGMS T32 design

Grant and fellowship writing is great example of mixed teaching/learning and mentoring model

Shifting feedback model to more oral feedback in early writing to provide ‘rich’ display of ‘expert’ knowledge – much shorter feedback cycles…
Enhancing research careers: an example of a US national diversity-focused, grant-writing training and coaching experiment

Harlan P. Jones¹*, Richard McGee², Anne Marie Weber-Main³, Dedra S. Buchwald⁴, Spero M. Manson⁵, Jamboor K. Vishwanatha¹ and Kolawole S. Okuyemi⁶

From The Annual Diversity Program Consortium Meeting 2015, and subsequent annual meetings
National Harbor, MD, USA. 27-28 October 2015
Enhanced Grant Writing Coaching Intervention for a Diverse Biomedical Workforce

(1 U01 GM132366-01, Okuyemi, PI)

A randomized controlled trial of 4 variations of a grant writing coaching group model

Kola Okuyemi, MD, MPH,
Professor and Chair
Department of Family and Preventive Medicine,
University of Utah
Q & A after all 3 presentations
Happy to Dialogue...

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