CREATING MENTORING PROGRAMS THAT ADVANCE MINORITY SCHOLARS

Spring 2022 HRA Members Meeting

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April 20, 2022
• Intro/STEM Fields
• Diversity Recruitment
• Grant Review Bias
• Barriers
• Mentoring Program
• Resources
• Summary
• 28%, 23% and 20% of Black Americans, respectively, say that the fields of medicine, engineering, and scientists are welcoming to Black people in these jobs.

• On the flip side 16%, 11% and 14% of Black adults with postgraduate degrees, respectively, view these fields as welcoming to Black people.

• 44% of Black high school graduates said someone made them feel excited about their abilities in STEM.
DIVERSITY – EXPECTATIONS VS REALITY

• Many employers state that they are “looking for candidates from diverse backgrounds”
  • Racial, Ethnic, Orientation, Gender, Religion, etc.
• Universities and Grant Programs may ask applicants for Diversity statements.
• Why is it important?
  • Diverse teams bring unique experiences and ideas that collectively can increase creativity and improve-problem solving.
  • Will reduce changes of confirmation-bias and creating things that don’t work for all.
  • Evaluate the diversity of your department and if it is diverse enough to represent who you want to hire? (California State University Bernadino (2012))
• Is it lip service?
Having NIH R01 grants establish you as an expert and allows you to sit on review committees.

Black applicants are 1.7 times less likely to receive NIH RO1 funding than white applicants \(^1\,^2\), and less likely to have R phases of the prestigious K99/R0Os activated.

Black applicants are also likely to receive lower impact and criterion scores due to scoring bias \(^2\,^4\,^5\).

While white applicants have been funding with grants in the 35\(^{th}\)-59\(^{th}\) percentile, the lowest range for grants by black applicants was in the 30-34\(^{th}\) percentile\(^2\).

3. Pickett C, 2018
   http://rescuingbiomedicalresearch.org/blog/examining-distribution-k99r00-awards-race/
4. Eblen MK et al., 2016. Plos One 11: e0155060
MENTORING
• Absence or lack of
• Disregarding of ideas
• Micromanagement
• Distrust of your skills
• Intelligence overlooked
• Knowledge ignored

ENVIRONMENT
• Idea theft
• Favoritism/Exclusion
• Sexism
• Group-think
• Weak compliance or oversight

FINANCIAL
• Lack of support getting/writing grants
• Fear of speaking up (funding removal)
• Rent, Housing, Travel
• Reimbursements
• Stigma
BARRIERS OFTEN NOT MENTIONED TO ADVISORS/STRUCTURAL ISSUES

INSTITUTIONAL/PERSONAL:
- Family
- Socioeconomic
- Transportation
- Language
- Culture
- Immigration Status

BIAS/RACISM:
- Random dress codes
- Selective exclusion from establishments
- Random ID checks
- Driving at night
- Profiling

MICROAGGRESSIONS:
- Colorblindness
- Criminality or Dangerousness
- Racism Denial
- Meritocracy
- Affirmative Action
- Comportment/Communication
- Fetishization

#BlackInStem
#BlackInTheIvoryTower

Williams MT et al., (2020)
IMPACT OF THESE BARRIERS

• Minority researchers
  • spend more time doing resubmissions
  • timing out of career eligibility awards
  • leaving academia

• While some direct interventions/solutions have been proposed, they were met with fierce resistance and ultimately not implemented.\textsuperscript{6,7}

• Though roughly 13\% of the U.S. population, black patients represented less than 3\% of pharma sponsored clinical trial participants for FDA approved immunotherapies\textsuperscript{8}, and black men have the highest lung cancer mortality rates.\textsuperscript{9}

• Only 3\% of medical oncologists in the US are black. \textsuperscript{10}

• Mentoring, Workforce representation, and belonging are minimal.

8. Nazha B et al., 2019, ASCO Education Book 39:3-10
Need: Define purpose of program.

**WHO**
- Is program designed for?
- Is participating?

**WHAT**
- Are the objective(s)?
- Efforts have org done in diversity?
- Are your timeline goals?
- Time commitments needed?
- Will it cost?

**WHY**
- Is program needed?
- Are you able to do it?

**HOW**
- Will it be organized?
- Will it be funded?
- Are you evaluating?
- Will it make an impact?
- The format and costs?
Need: How to promote program and increase awareness?

- Minority Conferences
- Social Media
- Networks
Need: How is diversity being embedded into the program?

- What is the diversity of the funding organization?
- Amongst reviewers, mentors, and participants?
  - Is there geographic diversity?
  - Is there institutional diversity?
  - Is there ethnic/racial diversity?
  - If not, how will it be achieved?
- If grant is for other underserved/invisible populations, do reviewers have backgrounds related to this or cognizant of the issues these trainees face?
Need: Grant/Program Administrators must meet with awardees regularly

- Meetings should be general touch points independent of formal annual reports
- Should also check to see about:
  - Lab Culture
  - Fit
  - Opportunity to grow and thrive
  - Check to see they aren’t being marginalized or in toxic environment
5. Accountability

PI AND INSTITUTIONAL ACCOUNTABILITY

Need: Checks and balances to reduce/minimize abuse?

• Awardees should be able to leave an untenable lab
• Awardees should be able to go to a different lab at that institution or a different university with no penalty
• Keep track of PIs/institutions that mistreat minority scholars, and start restricting applications
• Are the institutions already taking steps to address diversity and environment issues?
6. Mentors

INTERNAL AND EXTERNAL MENTORS

Need: To have a set of mentors that provide different skills/viewpoints to awardees.

- Awardees should be awarded either an internal/external mentor that is not their PI
- Mentors vetted
  - Commitment to advancing minority and underserved scholars
  - Member of underrepresented group interested in mentoring
  - Questionnaire about core competencies
    - Systemic racism and structural racism
    - Interest
    - Number of Minority Scholars trained (degrees, matriculation time)
    - Mentoring philosophy
- Meeting Frequency
- Value of Time
  - Minority tax
  - Compensation
MENTORING PLAN DEVELOPMENT WITH PI

7. Mentoring Plan

Need: To a plan for mentoring and advancement with the PI

• Its generally a standard document or part of an IDP.
• Just because it is written, does not mean it will be followed.

• Should include
  • Courses
  • Workshops
  • Trainings
  • Meeting frequency
  • Mentor’s philosophy
Need: In-person summit/event will/should wrap up the official program and foster connections.

- Awardees present their research
- Meet other awardees and mentors
- Mock Study Section on their grants
- Networking
- Practical and additional Career Skills
PRACTICAL SKILLS/
PROFESSIONAL DEVELOPMENT

• Academia
  • Grant Writing
  • Budgeting
  • Negotiating
  • People Management
  • Cover Letters
  • Personal Statements
  • Teaching and Research Philosophy
  • Different types of institution

• Personal
  • Discrimination
  • Racism
  • Sexism
  • Profiling
  • Navigating difficulty environments
  • Open session for barriers
  • Different types of institutions

• Alternative Paths
  • Non-profit
  • Government
  • Science Writing
  • Science Communications
  • Venture Capital/Investing
  • Marketing
  • Biotech/Pharma
  • Business Development
  • Strategy
  • MSL
  • Consulting
10. Networking

NETWORKING

Need: There has to be a forum for awardees/participants to communicate and build into more sustained friendships, connections, and camaraderie.

- Online groups: Facebook, Twitter, LinkedIn
- Cohorts for each year vs all years
- Mentors with and without/cohorts
- Email list serve
CAREER DEVELOPMENT CIRCLE - GROWTH

1. Design
2. Promotion
3. Diversity
4. Communication
5. Accountability
6. Mentors
7. Mentoring Plan
8. Summit
9. Professional Development
10. Networking
• Taking into account all the barriers that minority and underserved trainees have to overcome, programs must make explicit efforts to recruit, retain, and advance.

• Integration between the grant program, mentors, and trainees will be key to ensuring that scholars get support they need to grow professionally.

• If there is no accountability, things may not change at all.
<table>
<thead>
<tr>
<th>Recruitment/Training/Supplements</th>
<th>LINK</th>
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<tbody>
<tr>
<td>UTHSCSA – Minority Recruitment Website</td>
<td><a href="https://lsom.uthscsa.edu/diversity/resources/minority-recruitment-websites/">https://lsom.uthscsa.edu/diversity/resources/minority-recruitment-websites/</a></td>
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<tr>
<td>Minority Postdoc</td>
<td><a href="https://www.minoritypostdoc.org/">https://www.minoritypostdoc.org/</a></td>
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<tr>
<td>Meyerhoff Scholars Program - UMBC</td>
<td><a href="https://meyerhoff.umbc.edu/">https://meyerhoff.umbc.edu/</a></td>
</tr>
<tr>
<td>NIH CURE – Diversity Supplements, etc.</td>
<td><a href="https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure">https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure</a></td>
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### Faculty Development

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<tr>
<td>RIT Future Faculty Exploration Program</td>
<td><a href="https://www.rit.edu/diversity/ffcep">https://www.rit.edu/diversity/ffcep</a></td>
</tr>
<tr>
<td>NC State University Building Future Faculty Program</td>
<td><a href="https://diversity.ncsu.edu/building-future-faculty-program/">https://diversity.ncsu.edu/building-future-faculty-program/</a></td>
</tr>
<tr>
<td>Virginia Tech – Future Faculty Diversity Program</td>
<td><a href="https://www.inclusive.vt.edu/Programs/FFDP.html">https://www.inclusive.vt.edu/Programs/FFDP.html</a></td>
</tr>
<tr>
<td>NSF AGEP – Alliance for Graduate Education</td>
<td><a href="https://www.pathwaystoscience.org/agep.aspx">https://www.pathwaystoscience.org/agep.aspx</a></td>
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LESSONS LEARNED

• Have a vision and project where you want the program to be 5 and 10 years out.
• Have buy-in from leadership, staff, and external stakeholders.
• While you can’t account for everything, be thorough about the design, benefits, and impact.
• Weave equity and diversity within the program (participants, mentors, staff) to reduce the chances of someone being isolated.
• Continuously measure short-, medium-, and long-term metrics and benchmarks to help assess the program and what the trainees need.
QUESTIONS