Outline

To give an overview of the postdoctoral landscape

To discuss the value of diversity and acknowledge the role of bias

To share strategies to help promote your success
Overview of the Postdoctoral Landscape
The number of postdocs working at US universities was 63,861 in 2015, up 0.4 percent from 63,593 in 2014. Roughly 55 percent of the 2015 postdocs were in the biological sciences (30.2 percent) and clinical medicine (24.8 percent), down from more than 60 percent in 2010.

Change in Number of Postdoctoral Appointees by Field, 2010 – 2015

Postdoc positions among early career doctorate holders with a science and engineering degree: 2014

Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017
Academic employment among early career doctorate holders with a science and engineering degree: 2014

- Full-time faculty: 39%
- Postdoc: 38%
- Other positions: 13%
- Other faculty: 10%

Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017
Race, ethnicity, and sex of early career doctorate holders with a science and engineering degree: 2014

White women
White men
Asian women
Asian men
Black women
Black men
Hispanic women
Hispanic men
Other women
Other men

Percent

0 5 10 15 20 25 30 35 40 45

NOTES: Hispanic may be any race. Other includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and respondents who selected more than one race.

Women, Minorities, and Persons with Disabilities in Science and Engineering: 2017

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Lack of Diversity in the Biomedical Sciences

Source: Hannah Valantine, Chief Officer for Scientific Workforce Diversity, National Institutes of Health
Yet among 1,400 tech workers polled, 83% think diversity in tech is important, but only half believe improvements need to be made at their own company.

(Atlassian survey 2017)

Source: Hannah Valantine, Chief Officer for Scientific Workforce Diversity, National Institutes of Health
Value of Diversity and Acknowledging the Role of Bias
Why Diversity Matters

Source: Hannah Valantine, Chief Officer for Scientific Workforce Diversity, National Institutes of Health
Bias – a tendency to believe that some people, ideas, etc., are better than others that usually results in treating some people unfairly

Source: Merriam-Webster’s Learners Dictionary
OUR FRACTURED COMMUNITY

When it comes to disparities in science, the numbers speak for themselves. Whether based on culture, religion, race, gender, or myriad other factors, the data show that science is not nearly as diverse as it should be.

42% of minority women in scientific disciplines have reported experiencing subtle discrimination.¹

<5% of all science and engineering doctorates in the U.S. are held by black men.²

In 2007, there were only 2 black female tenure-track chemistry professors employed at the “Top 50” universities.¹

Almost half of all black and Latina female scientists in the U.S. have been mistaken for janitors or administrative assistants compared to a third of white women and a quarter of Asian women.³

From 1973 to 2012, a total of 66 black American women earned physics doctorates, during that same time 22,712 white men earned their doctorates. A 1:133 ratio.¹

<7% of women who received doctorates in the U.S. in 2010 were black.¹

1/2

“The scholar who cherishes the love of comfort is not fit to be deemed a scholar.”

Confucius (Chinese philosopher, c. 551-479 B.C.)

“Change means movement. Movement means friction. Only in the frictionless vacuum of a nonexistent abstract world can movement or change occur without that abrasive friction of conflict.”

Saul Alinsky (U.S. political activist, 1902-1972)

“People who are aware of, and ashamed of, their prejudices are well on the road to eliminating them.”

Gordon Allport (U.S. psychology professor, 1897-1967)
Confirmation Bias

OVERWHELMING DISPROOF

I’VE GOT ALL THE EVIDENCE I NEED!

CONFIRMATION BIAS

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Implicit Bias

Stan's attempt to pass his implicit association test was doomed from the moment he asked his employer: "What do I push for true?"
Bias in Hiring
Bias in the Faculty Search Process

- Pre-search Process
- Outreach and Advertising
- Search and Review Process
- The Interview
- The Offer
Strategies to Help Promote Your Success
Institutional Efforts
POINTER OF VIEW

The future of graduate and postdoctoral training in the biosciences

Abstract This article summarizes the outcomes of the second national conference on the Future of Bioscience Graduate and Postdoctoral Training. Five topics were addressed during the conference: diversity in leadership positions; mentoring; modernizing the curriculum; experiential learning; and the need for better data on trainees. The goal of the conference was to develop a consensus around these five topics and to recommend policies that can be implemented by academic and research institutions and federal funding agencies in the United States.

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Diversity and Academic Leadership: How to better increase the diversity of scientists in senior and leadership roles

1. Begin leadership training early for graduate students and postdocs

2. Provide incentives and awards for programs that impact institutional culture which enhances diversity, equity and inclusion

3. Encourage change in review practices for recruitment, hiring, promotion, funding, publications and awards

4. Require inclusivity training for all senior administrators, faculty, staff, postdocs and graduate students

5. Establish major funding mechanism to prepare underrepresented postdocs for transition into successful careers

Individual Efforts
Acknowledge that 21st Century Bias Exists

In general, behavioral and psychological barriers have replaced more blatant forms of bias

Your challenge is to recognize and make visible the invisible forms of bias

Source: Are the Walls Really Down? Behavioral and Organizational Barriers to Faculty and Staff Diversity: ASHE Higher Education Report, 2007
Understand the Impact of Bias on Self-Esteem

Impact of systemic bias is not restricted to the workplace but may infiltrate your personal life

Underrepresented minorities and women sometimes interpret everyday bias for their own personal shortfalls = self-blame

Underrepresented minorities and women must exercise additional caution in the workplace and overcompensate for existing stereotypes

 Appropriately attributing negative outcomes to prejudice can serve as a self-protective function; the predictability of negative stimuli may enable lowering of stress

Source: Are the Walls Really Down? Behavioral and Organizational Barriers to Faculty and Staff Diversity: ASHE Higher Education Report, 2007
Yesterday I was clever, so I wanted to change the world. Today I am wise, so I am changing myself.

~ Rumi
Employ Personal Strategies for Success

Engage in Effective Mentor-Mentee Relationships

Seek Personal and Professional Career Development

Participate in Networking Events

Develop Social Support

Understand the Power of Negotiation
Lead Yourself Exceptionally Well

Manage Your Emotions
Manage Your Time
Manage Your Priorities
Manage Your Energy
Manage Your Thinking
Manage Your Words
Manage Your Personal Life
Be Empowered

Understand your potential

Acknowledge your ability

(Confidently) exercise your competence

Pursue your ambition

Determine your contribution
18 Things Mentally Strong People Do

1. They reflect on their progress
2. They move on
3. They keep control
4. They embrace change
5. They stay happy
6. They are kind
7. They are willing to take calculated risks
8. They invest their energy in the present
9. They accept full responsibility for their past behavior
10. They celebrate other people’s success
11. They enjoy their time alone
12. They have staying power
13. They are prepared to work and succeed on their own merits
14. They think productively
15. They expend their mental energy wisely
16. They evaluate their core beliefs
17. They tolerate discomfort
18. They are willing to fail

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On being true to yourself...

You have brains in your head.
You have feet in your shoes.
You can steer yourself
    any direction you choose.
You’re on your own.
And you know what you know.
And YOU are the guy/gal
    who’ll decide where to go.

Dr. Seuss, 1990