

Scientific Career Development

Marie A. Bernard, M.D.
Deputy Director
National Institute on
Aging



5 Cardinal Principles

1. Know your objectives
2. Line up your resources
3. Know the rules of the game and play by them
4. Keep your eye on the prize
5. Remember where you came from and how you got there

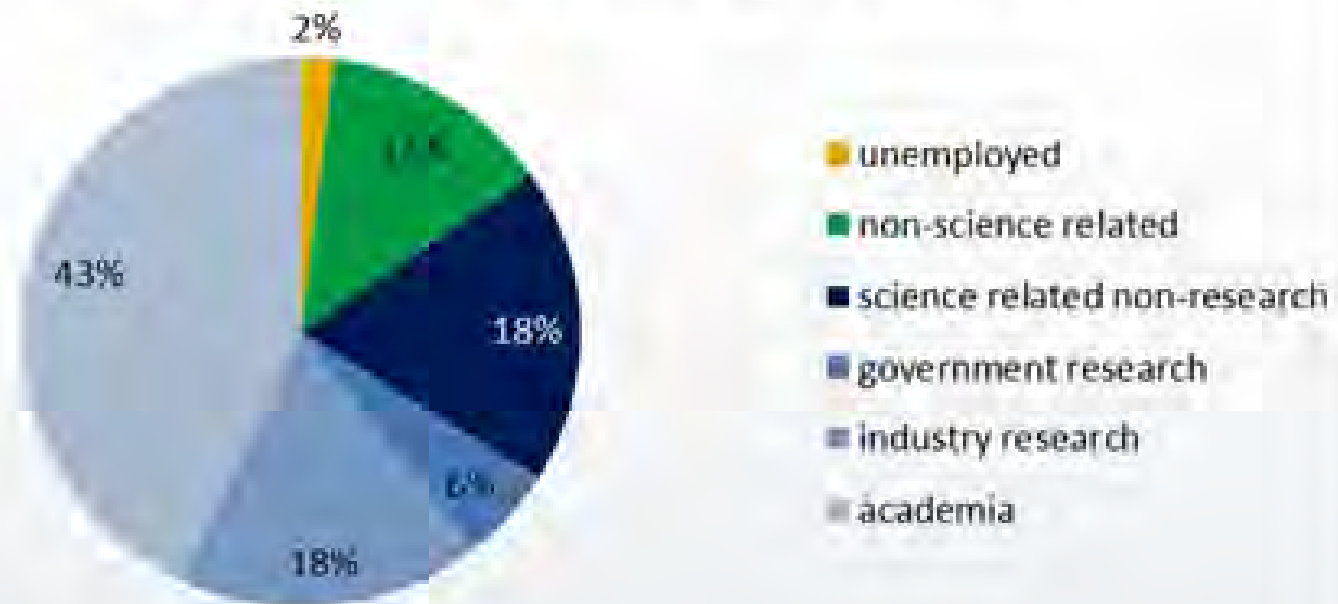
1. Know your objectives

What is your ultimate career goal?

- a) Academic research
- b) Industrial research
- c) Government
- d) Other
- e) All of the above

Biomedical Workforce Snapshot

2008 Total Post-training Workforce



Note: Because the source of the numbers in the pie chart is the NSF/SDR, they only include US doctorates and total about **130,000**, which is an underestimate of the total workforce

5 Cardinal Principles

1. Know your objectives
- 2. Line up your resources**
3. Know the rules of the game and play by them
4. Keep your eye on the prize
5. Remember where you came from and how you got there

Mentors



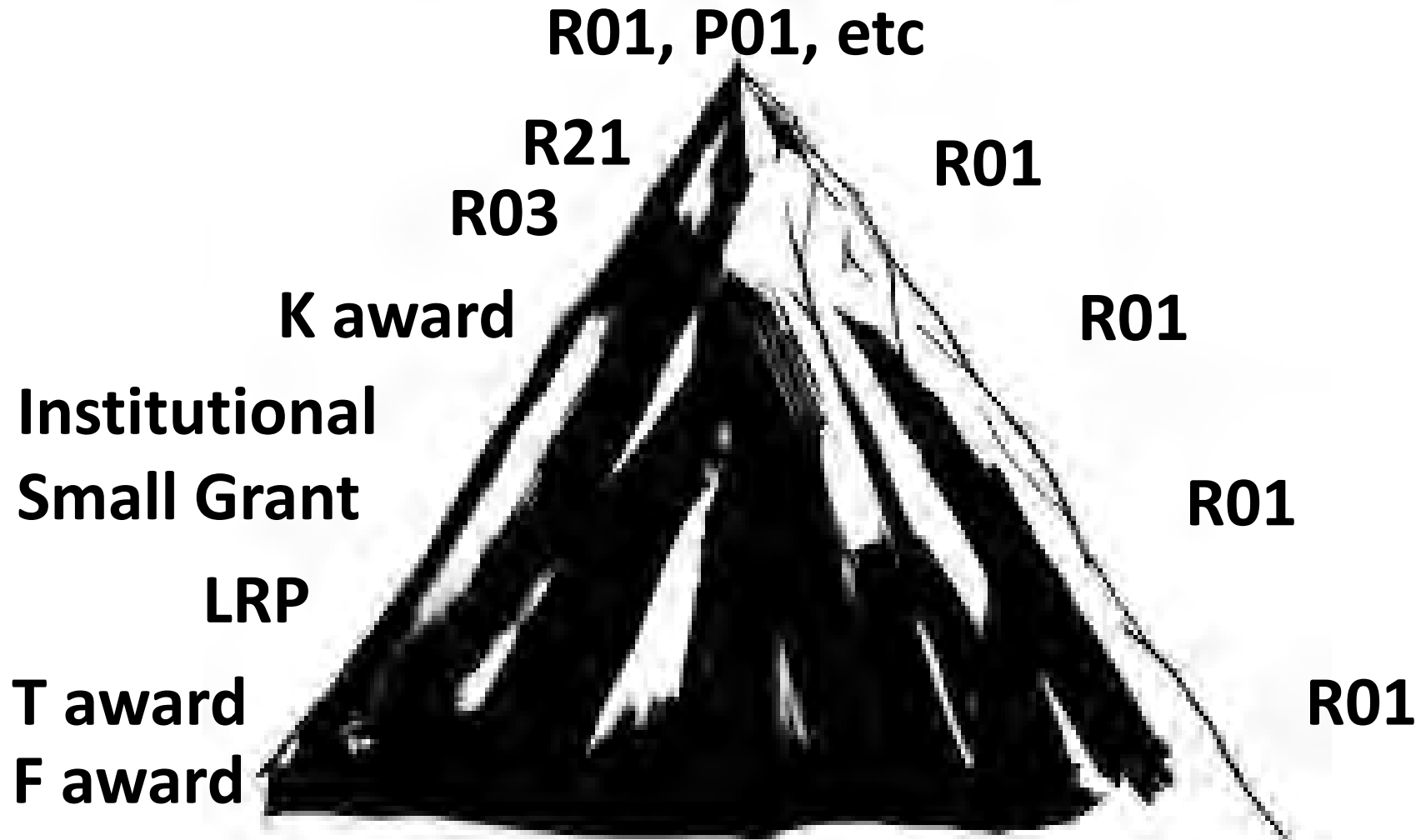
Mentors



Support System



Grants Along the Way



Comparison: Salary across Broad Fields by Years of Experience

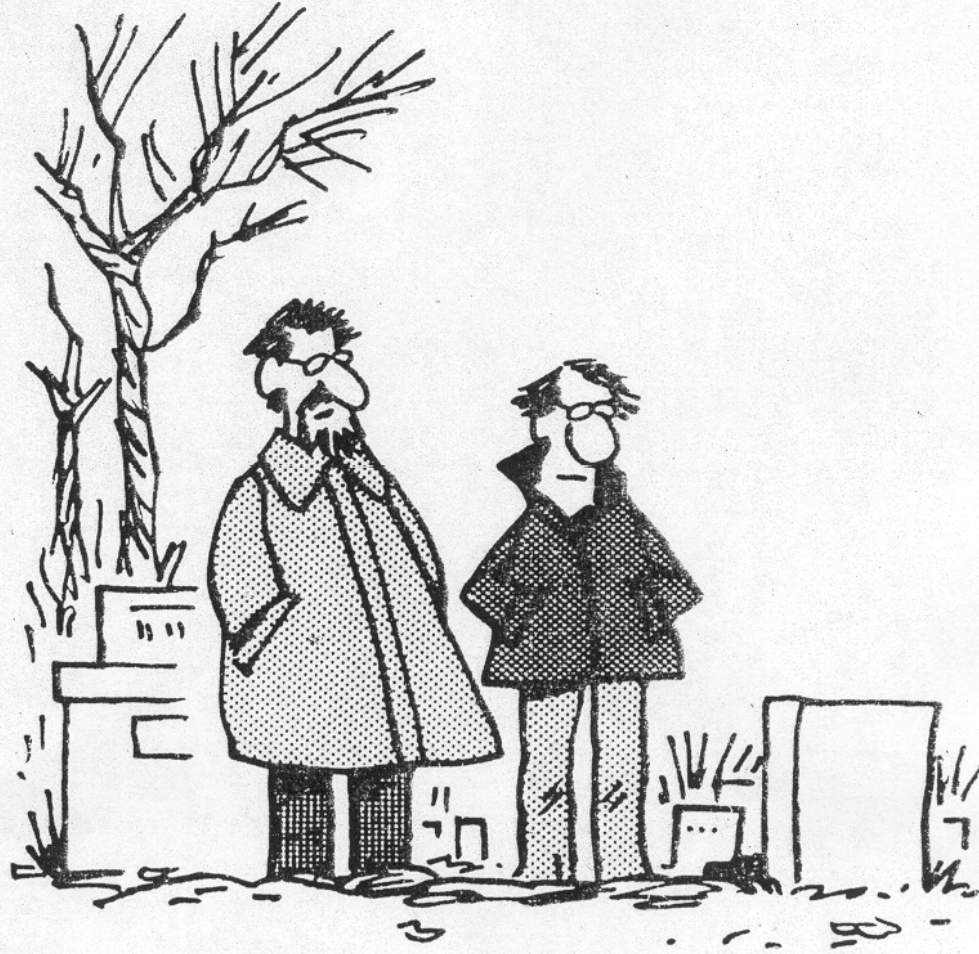
Years Since PhD	Bio Med	Comp Math	Physical Science	Social Science	Engineer
0	51,594	66,804	57,775	55,532	72,992
10	87,766	99,972	94,180	87,853	113,314
30	123,959	109,277	122,148	107,321	133,292

- ❖ Starting salaries are the lowest.
- ❖ There is some catch-up late career

5 Cardinal Principles

1. Know your objectives
2. Line up your resources
3. **Know the rules of the game and play by them**
4. Keep your eye on the prize
5. Remember where you came from and how you got there

Berry's World



Jim Berry

© 1992 by NEA, Inc.

"He didn't publish, so he perished."

Mentor-Mentee Relationship

1. Clear expectations
2. Respect for the mentor's time
3. Follow-through
4. Follow-up
5. Revisit relationship periodically



Publish!



Network



1. Colleagues
2. Other labs
3. Your institution
4. Scientific meetings





Be a Good Scout



- Honest
- Loyal
- Dependable

Publish
Today



5 Cardinal Principles

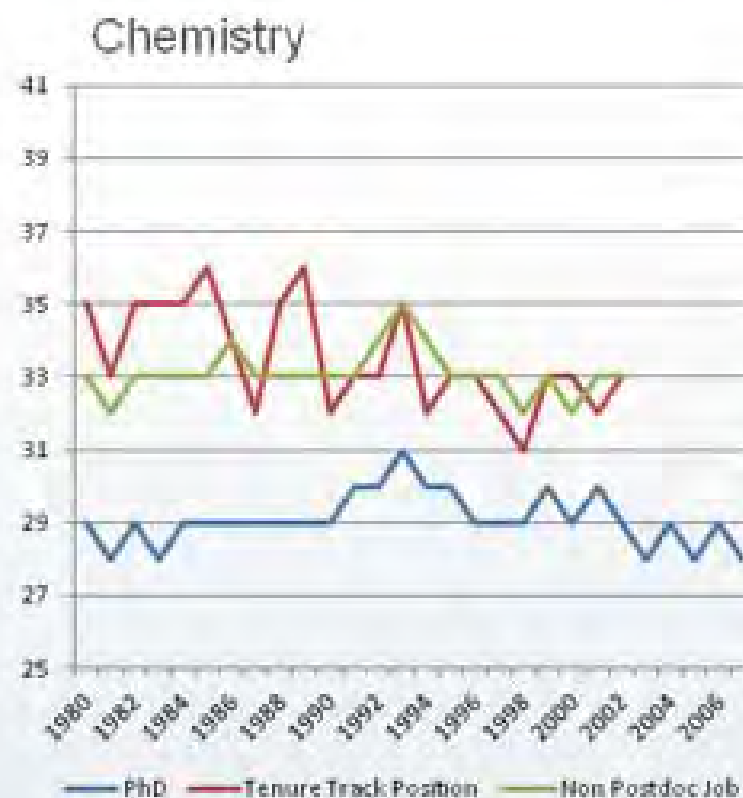
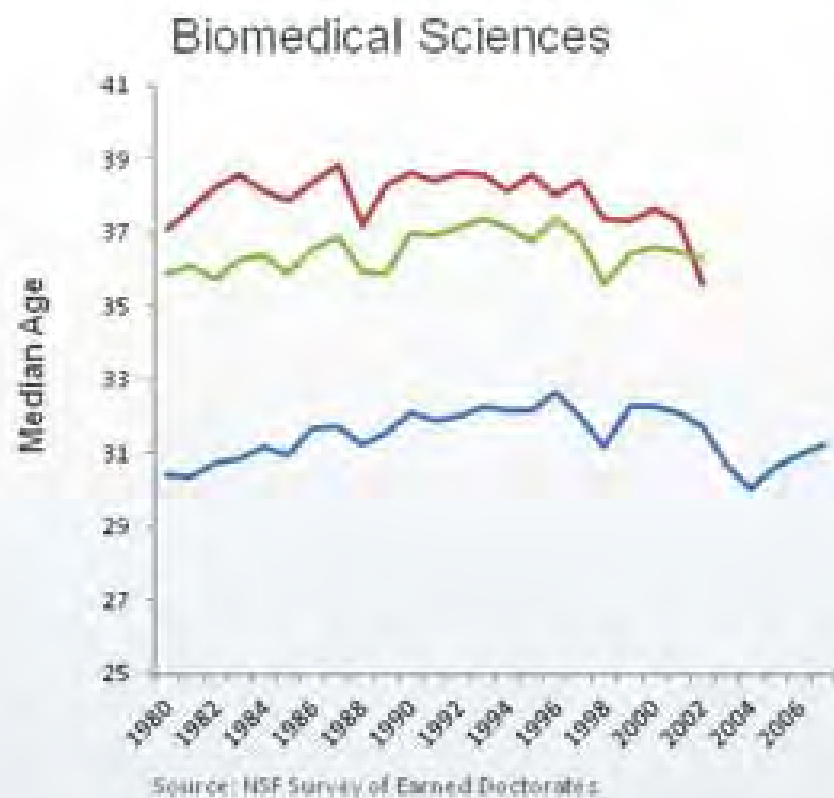
1. Know your objectives
2. Line up your resources
3. Know the rules of the game and play by them
- 4. Keep your eye on the prize**
5. Remember where you came from and how you got there

Keep Your Eye on the Prize

- Lots of distractions along the way
- Anticipate lots of rejection
- Peers may seemingly be ahead of you

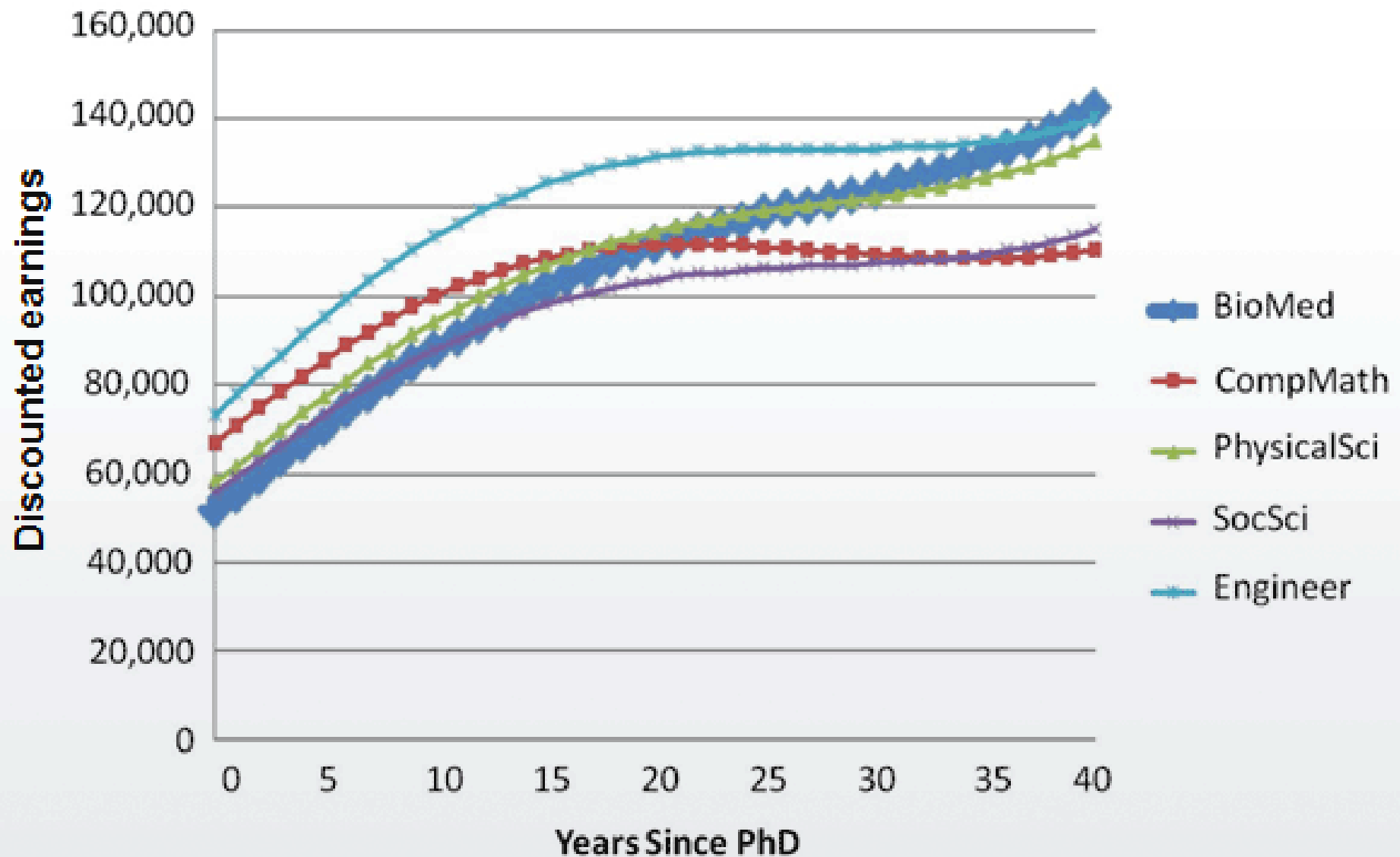


Training: Age at First PhD, First Non Postdoc Job, First Tenure Track Job, for Biomedical and Chemistry Doctorates



✿ Chemistry PhDs are younger and time to first job is earlier than for biomedical sciences PhDs.

Comparisons of Earnings Profiles



Keep Your Eye on the Prize

- Lots of distractions
- Lots of rejection
- Peers may seem ahead
- Not much positive feedback
- Sometimes asked to do things not to your benefit



5. Remember Where You Came From and How You Got There



When you get to the top help others along the way



A Networking Option



Women of Color Committee

- Established to address the unique needs of Women of Color (WOC)
- Energized by NAS Conference *Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academia*, June 7-8, 2012, Washington, DC



NAS Presentation – Ginther & Kahn

Women of color are less likely than white women to:

- Graduate from college
- Obtain a PhD in Science and Engineering
- Obtain a tenure-track job at a non-minority serving institution



NAS Presentation – Ginther & Kahn

Women of color are more likely to:

- Be employed in non-tenure track positions
- Be employed at minority-serving institutions



The Home Page: Our Public Face

The screenshot displays the homepage of the Women of Color Research Network (WoCRn). At the top, the U.S. Department of Health & Human Services logo is on the left, and the user 'kwitkin' with a 'Logout' link is on the right. The main header features the 'WoCRn' logo, the text 'NATIONAL INSTITUTES OF HEALTH', and the full name 'Women of Color Research Network'. A search bar with the placeholder 'Enter Search Terms...' and a 'Search' button is positioned to the right of the header. Below the header is a navigation menu with five items: 'HOME', 'FORUMS', 'GROUPS', 'RESOURCES', and 'EVENTS'. Under the 'HOME' tab, there are 'View' and 'Edit Panel' buttons. The main content area is a large banner with a teal background. On the left, a woman in a white lab coat is looking through a microscope. To her left, the text reads 'I can connect with other women in the research community.' On the right, there is a dark blue box containing the text: 'Participate in the online community that is addressing the challenges faced by all women and minorities entering and advancing in scientific careers.' Below this, it says 'Join our efforts for women of color and everyone who values diversity in the scientific workforce!' and a large orange button with the text 'JOIN THE NETWORK'. Underneath the button, it says 'Already a member? Login now!'. At the bottom left of the banner, there are three small numbered circles (1, 2, 3). Below the banner, there are two sections: 'WHAT PEOPLE ARE DISCUSSING' and 'YOUR GROUPS'. The 'WHAT PEOPLE ARE DISCUSSING' section shows a discussion titled 'Summer Housing for NIH SIP student (3)' started by 'Tanya Okolie' 2 days 5 hours ago. The 'YOUR GROUPS' section shows a group named 'K-12' with 1 member.

U.S. Department of Health & Human Services

kwitkin | Logout

WoCRn NATIONAL INSTITUTES OF HEALTH
Women of Color Research Network

Enter Search Terms... Search

HOME FORUMS GROUPS RESOURCES EVENTS

View Edit Panel

I can connect with other women in the research community.

Participate in the online community that is addressing the challenges faced by all women and minorities entering and advancing in scientific careers.

Join our efforts for women of color and everyone who values diversity in the scientific workforce!

JOIN THE NETWORK

Already a member? Login now!

1 2 3

WHAT PEOPLE ARE DISCUSSING

Summer Housing for NIH SIP student (3)
Started by Tanya Okolie 2 days 5 hours ago

YOUR GROUPS

K-12
Members: 1

The Home Page: Our Public Face

EVENTS

May 9, 2013

Achieving Scientific Equity for the Prevention of Mental, Emotional, and Behavioral Disorders in Minorities and Other Populations

Natcher Auditorium

NIH main campus, Bethesda, MD

May 10, 2013

APPLICATION DEADLINE: NIH Diversity Funding Opportunity Announcements

May 14, 2013

6th Annual NIH Career Symposium

NIH Main Campus, Bethesda, MD

Natcher Conference Center, Building 45

[See All Events](#)

NEWS

May 07, 2013

Harvey Mudd Closes the Gender Gap

Listen to (or read) this NPR story about how Harvey Mudd College is encouraging women to study...

May 06, 2013

NIMHD 2013 Translational Health Disparities Course- Applications Due May 15

The National Institute on Minority Health and Health Disparities (NIMHD) is now accepting...

May 03, 2013

An Intervention Using Flexible Work Policies to Promote Career Advancement and Work-Life Balance

In this Academic Medicine article, the authors describe an intervention at UC Davis. Source...

[See All News](#)

RESOURCES

- ▶ Diversity and Faculty Development Digest (DiFac)
- ▶ Examples of Successful NIH Grant Proposals
- ▶ Grants and Funding Opportunities for Scientists
- ▶ National Postdoctoral Association: From Ph.D. to Professoriate
- ▶ NIA - Links Newsletter
- ▶ NIGMS - Workshop for Postdocs Transitioning to Independent Positions
- ▶ NIH - Biomedical Workforce Working Group Report
- ▶ NIH - Diversity in the Biomedical Research Workforce Working Group Report
- ▶ NIH - Early Career Reviewer Program

[See All Resources](#)

[Contact Us](#)

[Connect with WoCRN](#)



NATIONAL INSTITUTES OF HEALTH Women of Color Research Network

Enter Search Terms...

Search

HOME

FORUMS

GROUPS

RESOURCES

EVENTS

ABOUT US



View Profile

Colleagues

Edit Account

Edit Panel

Edit Profile

Nadia Winston

MSPH (Recent Graduate 2013)
Meharry Medical College

PRIVATE MESSAGES

Write New Message

Messages

Membership Directory

Send Private Message (PM)

My Messages

COMMUNITY ACTIVITIES

[View Resources](#)

[Start New Group](#)

[Start New Forum](#)

[Find More Colleagues](#)

LATEST FORUMS

Welcome, Aparna! Thanks for

Posted on July 1, 2013 - 08:28

Posted in [Hello to new members!](#) by [Keren Witkin](#)

Hello Everyone, I am Aparna

Posted on June 28, 2013 - 14:56

Posted in [Hello to new members!](#) by [aparna singh](#)

[Science Policy](#)

Original Content on Forum

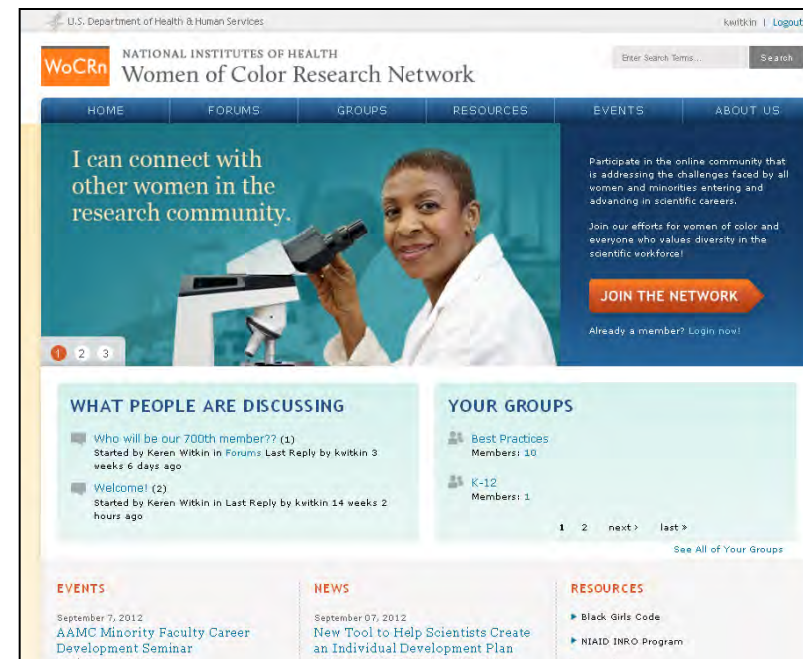
- Interviews
 - WOC members
 - Causal Factors grantees
 - Prominent women of color scientists
- The Spectrum Blog
 - NIH 101
 - Applying for an NIH Research Grant
 - What Happens to Your Grant Application Once it Reaches NIH

Now Enhanced and Updated: The Women of Color Research Network

<http://www.wocrn.nih.gov/>

- A social media site
- Provides information, networking, mentoring, and career development opportunities
- Offers news items, upcoming events, resources, discussion forums

**>900 members and
growing: JOIN NOW!**



Women in Biomedical Careers

