

Diversity in Science

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SCHOOL OF MEDICINE

INDIANA UNIVERSITY

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For Research Faculty: <http://faculty.medicine.iu.edu/body.cfm?id=158&oTopID=118>

What is different about being “different” in science?

- Opportunities (advancement, development, etc.)
- Training
- Leadership
- Source of input or advice (e.g., a mentor)
- A greater need to prove oneself?
- “Glass ceiling”
- A member of an underrepresented group

Who is underrepresented?

- Underrepresented minorities
- Women
- Underrepresented populations
- Includes those with disabilities

The AAMC definition of underrepresented in medicine:

**“...those racial and ethnic populations
that are underrepresented in the
medical profession relative to their
numbers in the general population.”**

AAMC Executive Committee, March 19, 2004

Who benefits from a diverse environment?

- Underrepresented minorities
- Women
- Underrepresented populations
- Includes those with disabilities
- EVERYONE !!!

“Underrepresented” in Biomedical Research—NIH definition

- People with disabilities.
- People from disadvantaged backgrounds, which include:
 - Those whose annual family income is below established low-income thresholds, as described at [Poverty Guidelines, Research and Measurement](#).
 - Those from a rural, inner-city, or other environment that has inhibited them from getting the knowledge, skills, and abilities needed for a research career.
- Racial and ethnic groups such as blacks or African Americans, Hispanics or Latinos, American Indians or Alaskan Natives, and Native Hawaiians and other Pacific Islanders.

“Underrepresented” in Biomedical Research—NIH definition (con’t)

- Even if one does not fit one of the categories, they may still qualify for some special programs if it can be shown that a person is underrepresented at his/her institution
- For more information: NIAID's Office of Special Populations and Research Training (AITrainingHelpDesk@niaid.nih.gov)
- Other NIH institutes have comparable programs to enhance diversity

Research Supplements to Promote Diversity in Health-Related Research

- Diversity supplements support students, postdocs, and faculty scientists who are members of an underrepresented group
- **Deadlines:**
 - NIAID receives applications at any time and review them approximately every eight weeks.
- To consider your application for the summer of this calendar year, the NIH must receive it **no later than April 15.**
- If you are seeking an award before the end of a fiscal year -- September 30 – they must receive your application **no later than April 30.**

Research Supplements to Promote Diversity in Health-Related Research

- **Review and Award:**

A committee of NIAID senior staff members review applications, generally within two months. NIAID will make awards about four to six weeks after review.

- **Eligibility:**

PIs must have at least two years of NIAID support remaining; they can receive funding for the following grant types:

- Research (R) project and Multi-project (P) grants

- Small business awards and Cooperative agreements

- **Students who are supported on research or training grants are not eligible.**

Mentoring URM students and postdocs—is it different?

- “Mentoring is mentoring”
- Cultural competence
- How is IU different from their previous institution(s)?
- Be sensitive to the existence of potential problems that may reflect a lack of cultural competence in others if (or when) a concern is brought up to you as mentor
- Simply treat everyone the same
--i.e., as you would like to be treated!

NIH supplements...

NIH Broadens Eligibility for NIH Diversity and Re-Entry Supplements

Notice Number: NOT-OD-10-045

Key Dates

Release Date: January 11, 2010

Issued by

National Institutes of Health (NIH), (<http://www.nih.gov>)

Background

The National Institutes of Health (NIH) provides administrative supplements to improve the diversity of the research workforce by supporting and recruiting students, postdoctorates, and eligible investigators from groups that have been shown to be underrepresented (see [PA-08-190: Research Supplements to Promote Diversity in Health-Related Research](#)). The NIH also provides administrative supplements to research grants to support individuals with high potential to re-enter an active research career after a qualifying interruption for family or other responsibilities (see [PA-08-191: Research Supplements to Promote Re-Entry into Biomedical and Behavioral Research Careers](#)).

Eligible awards:

Principal Investigators at domestic institutions who hold an active R00, R01 (or RL1), R10, R18, R22, R24, R35, R37, R41, R42, R43, R44, DP1, DP2, P01 (or PL1), P20, P30, P40, P41, P50, P51, P60, U01 (or UL1), U10, U19, U41, U42, U54 grant may be eligible to submit a request for an administrative supplement to the awarding component of the parent grant. Eligibility for other grant mechanisms may vary among Institutes and Center. Therefore applicants should consult each announcement before applying (see: [PA-08-190](#) and [PA-08-191](#)).

Policy

The purpose of this policy notice is to add several new activity codes to the list of eligible grants that may apply for Diversity Supplements and Re-Entry Supplements. These additional activity codes are: RC1, RC2, RC3, RC4.

Inquiries

NIH Research Training Office
Office of Extramural Programs
National Institutes of Health
Email: NIHTrain@mail.nih.gov



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Training and Career Awards

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NIGMS offers training support for graduate students, postdoctoral fellows, clinician-scientists, scientists transitioning to independence and independent scientists through a variety of award mechanisms, including training grants to institutions and fellowship and career development awards. These are listed below by career stage and by award type. All mechanisms that are part of the [Ruth L. Kirschstein National Research Service Award program](#) are indicated by "NRSA."

By Career Stage

Career Stage	Awards to Individuals	Awards to Institutions
Predoctoral		NRSA Institutional Predoctoral Training Grants (T32)
Postdoctoral	NRSA Individual Postdoctoral Fellowships (F32)	NRSA Institutional Postdoctoral Training Grants (T32)
Transition to Independence	Pathway to Independence Awards (K99/R00) Mentored Clinical Career Development Awards (K08, K23)	
Independent Investigator	Mentored Quantitative Research Career Development Awards (K25) NRSA Individual Senior Fellowships (F33)	



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Training and Career Awards

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By Award Type

Type	Mechanism	Training Opportunities
Institutional Training Grants (T awards)	T32	NRSA Institutional Predoctoral Training Grants
		NRSA Institutional Postdoctoral Training Grants
Individual Fellowships (F awards)	F32	NRSA Individual Postdoctoral Fellowships
	F33	NRSA Individual Senior Fellowships
Career Development Awards (K awards)	K08, K23	Mentored Clinical Career Development Awards
	K25	Mentored Quantitative Research Career Development Awards
	K09/R00	Pathway to Independence Awards



Back to: [NIGMS Home](#) > [Minority Programs](#) > [Minority Access to Research Careers \(MARC\)](#)

MARC Program Description

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The Minority Access to Research Careers (MARC) Branch seeks to increase the number of highly-trained underrepresented biomedical and behavioral scientists in leadership positions to significantly impact the health-related research needs of the nation. Nationally, groups found to be underrepresented in biomedical and behavioral research include, but are not limited to, African Americans, Hispanic Americans, Native Americans, Alaska Natives and natives of the U.S. Pacific Islands. The Branch meets this objective by supporting two institutional programs, [MARC U-STAR \(T34\)](#) and [MARC Ancillary Training Activities \(T36\)](#), and [Individual Predoctoral Kirschstein-NRSA Fellowships to Promote Diversity in Health-Related Research](#).

MARC Program Components

- [MARC U-STAR \(T34\)](#)
- [MARC Ancillary Training Activities \(T36\)](#)
- [Individual Predoctoral Kirschstein-NRSA Fellowships to Promote Diversity in Health-Related Research \(F 31\)](#)

For additional information about MARC, contact [Dr. Adolphus Toliver](#) or [Dr. Shawn R. Drew](#) at 301-594-3900.

This page last updated March 4, 2010

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What about NSF...?

- A number of initiatives that have relevance to a number of issues important to all of us trying to advance diversity here

Kathleen McCloud

Physics Division

National Science Foundation

Broadening Participation

A General Definition for NSF

NSF defines broadening participation in terms of **individuals from underrepresented groups** as well as **institutions and geographic areas** that do not participate in NSF research programs at rates comparable to others.

- Includes women, underrepresented minorities, and persons with disabilities
- Can depend somewhat on scientific community

NSF Programs and Activities

- NSF perspective
- MPS Gender Equity Workshops
- ADVANCE

From the NSF perspective

Provide training for staff on NSF priorities and mechanisms for broadening participation and workforce development, including topics such as outreach approaches, reviewer selection, and mitigation of implicit bias in the review process.*

* "A Framework for Action"

Broadening Participation in Proposal Review

- Solicitation language
- Review criteria
- Implicit bias and panelists
- Panel and reviewer selection
- Overhaul of the internal panelist system to address BP

Solicitation Language

- Integrating Diversity into NSF Programs, Projects, and Activities Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

“Dear Colleague” Letters

- CHE (Chemistry), DMR (Division of Materials Research), and DMS (Division of Mathematical Sciences) all have “Dear Colleague” letters that specifically address broadening participation in their communities
- These letters can be found on the Division Websites

NSF, DOE, NIH-sponsored workshop Jan. 2006
*Building Strong Academic Chemistry
Departments through Gender Equity*

A key recommendation to funding agencies is to develop policies to ensure gender equity in proposal review through:

- instituting procedures for training of reviewers and grantees on diversity issues
- modifications of peer review processes where necessary to ensure gender equity

Sept. 2006 NAS study *Beyond Bias and Barriers* reiterates these recommendations

Informing Panelists

- Implicit bias toward a group
 - Non-conscious hypotheses/stereotypes, often about competence
- Lack of critical mass a greater reliance on implicit bias
 - Few women and minorities in sciences
- Accumulation of disadvantage
 - Small bias in same direction has large effect over time
 - Very small differences in treatment can have major consequences in salary, promotion and prestige *Valian (1998)*

Information from a slideshow on implicit bias developed for all panelists by the CHE Division, now available NSF-wide

Minimizing Bias in Evaluation

- Implicit bias toward a group ("schemas")
 - Non-conscious hypotheses/stereotypes, often about competence
 - Lack of critical mass \Rightarrow greater reliance on schemas
 - Few women and minorities in sciences
 - Unconscious bias in search committees (IUSM)
 - Accumulation of disadvantage
 - Small bias in same direction has large effect over time
 - Very small differences in treatment can have major consequences in salary, promotion and prestige
- Valian (1998)*

Schemas are...

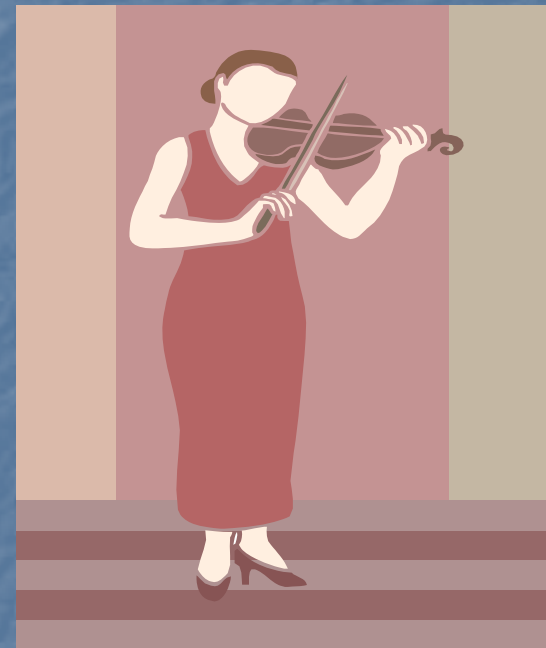
- **Widely culturally shared**
 - All people, even members of under-represented groups, hold schemas about these groups
 - People are often not aware of them
- **Applied more** under circumstances of:
 - Lack of information
 - Stress from competing tasks
 - Time pressure
 - Lack of critical mass

Fiske (2002). *Current Directions in Psychological Science*, 11, 123-128.

Impact of Blind Auditions

When orchestra auditioners were behind a screen, the percentage of female new hires for orchestral jobs increased 25 – 46%.

Goldin & Rouse (2000) *The American Economic Review*, 90, 4, 715-741. (14,133 auditioners over 25 years)



Ways to Mitigate Evaluation Bias

- (1) Increase awareness of how schemas might bias evaluation
- (2) Decrease time pressure and distractions in evaluation process
- (3) Rate on explicit criteria rather than global judgments
- (4) Point to specific evidence supporting judgments

Bauer & Baltes, 2002, *Sex Roles*, 47 (9/10), 465-476

Important to incorporate (3) & (4) in our discussions on bias and how to mitigate it

MPS-funded Workshops for Department Chairs

- Chemistry Workshop on Gender Equity
- Physics Workshop on Gender Equity (co-funded AST, PHY, DMR)
- Materials Science and Engineering Workshop on Gender Equity
- Chemistry Workshop on Under-represented Minorities
- Workshop on Excellence Empowered by a Diverse Academic Workforce: Chemists, Chemical Engineers and Materials Scientists with Disabilities

Monitoring the Long-Term Impact...

- All workshops developed a series of goals and action plans.
- All workshops have/are developing a website for chairs to report their progress.

The ADVANCE Program

- Program Goal: Increase the participation and advancement of women at all levels in academic science and engineering careers.
 - Creative strategies to realize this goal should involve and are sought from both men and women
- Mainly for undergraduate, URM-serving institutions
- There are three program components:
 - Institutional Transformation
 - IT-Catalyst
 - Partnerships for Adaptation, Implementation, and Dissemination (PAID)

ADVANCE Lessons

- Implement standardized and transparent departmental policies and procedures
- Collect departmental data and relevant national data and share it with the department
- Support formal mentoring inside and outside the department
- Establish a culture and develop programs supportive of work-life balance (for instance, daycare opportunities)
- Focus on changing the department to achieve equity, not “changing the individuals” to suit the environment

ADVANCE Lessons

- Recruitment
 - Establish group expectations for diversity
 - Require candidate pools that reflect the available pool
 - Create broader position announcements to widen the pool of qualified candidates
 - Purposefully select diverse and knowledgeable search committee
 - Train search committee chairs and members on implicit bias, etc. (IUSM's recent workshops by Cornell group)
 - Require documentation be reported on each search (e.g., committee composition, demographics of candidates interviewed, reasons for hire decision, etc.)
 - Highlight work-life balance programs and policies to all candidates

Have your departments or divisions discussed recruitment?

ADVANCE Lessons

- Promotion and Tenure
 - Publish tenure and promotion requirements
 - Mentor junior faculty (include mentoring by department chair and faculty inside and outside of the department)
 - Develop multiple mentors for faculty, a mentoring circle
 - Implement pre-tenure review
 - Actively encourage faculty to pursue promotion
 - Thoughtfully select P&T committee
 - Train P&T Committee on implicit bias, etc.
 - Assign service and teaching demands equitably
 - Encourage all faculty to take advantage of available work-life balance programs (stop the clock policies, etc.) and ensure P&T decisions are not negatively influenced as a result

Questions about P&T in this context?

Faculty of color as leaders...

- More is expected (as for all leaders)
 - service
 - don't say "yes" to everything
 - but--do your service as is required of all faculty members
- Success earns respect
- Lead by example
 - earn what you get
 - opportunities here (e.g., Next Generation)
 - other opportunities (IUSM, IUPUI, etc.)?
- As a mentor
 - train mentees of ALL backgrounds

Research opportunities for mentoring underrepresented (and majority) faculty and trainees at IU

- NIH supplements
- T32 grants (summer and grad students)
 - Immunology and Infectious Diseases
 - Hematopoiesis
- Bridges to the Baccalaureate (IUPUI and Ivy Tech)
- Bridges to the Doctorate (IUSM with Jackson State and CSU-DH)

Issues to consider in continuing the dialog...

- Resources are available to assist in the recruitment and training of outstanding trainees (pre- and postdocs)
- NIH (esp. NIGMS) and NSF; other agencies as well (e.g., UNCF, Ford Foundation, etc.)
- These opportunities can serve as a career springboard for trainees (and PIs)
- Unconscious bias
- Institutional commitment
- Need to “walk the talk”, not just “talk the talk”

Final thoughts...

- Take advantage of opportunities that are out there for you in career development
- Take advantage of NIH (or other agency) supplements to your existing grant
- Investigate other potential opportunities that will enhance diversity here—be a leader
- Focus on your work and learn when to say “yes” and when to say “no”
- Be a mentor, but make sure you also have mentors
- Work/life balance (i.e., still have a life)

Additional questions?

**Please fill out the evaluations
and hand in as you leave**

Thank you for attending...

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