

NIH Working Group on Women in Biomedical Careers

Interim Summary of Working Group Considerations

June 8, 2007

Advisory Committee to the Director, NIH

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Subcommittee 1 - “Best Practices” workshop

CHAIR: Barbara Alving, M.D. (NCRR)

MEMBERS: Kameha Kidd, Ph.D. (NCRR), Jennifer Pohlhaus, Ph.D. (OD/ORWH), Louise Ramm, Ph.D. (NCRR), Joan Schwartz, Ph.D. (OD/OIR), Janine Smith, M.D. (NEI), Mona Trempe, Ph.D. (NIGMS), Kathy Zoon, Ph.D. (NIAID)

Issue:

This subcommittee considered the National Academies recommendation that all research funding agencies should provide workshops to minimize gender bias.

Proposed Solution:

Many organizations, academic health centers, pharmaceutical companies and other branches of government are faced with the challenges of retaining and promoting professional women who have chosen careers in biomedical research. The proposed conference will highlight some of the best practices that these organizations have developed with the goal of determining which practices can be applied and adapted to the needs of women in biomedical research.

The proposed conference is titled “Women in Biomedical Research: Best Practices for Sustaining Career Success” and will be held at the Natcher Conference Center at the NIH on March 4-5, 2008.

The conference will highlight the organizations that are successfully addressing the major barriers in the career development of women in biomedical sciences, including childcare responsibilities and the resulting need to “restart” the clock, the need for personal sabbaticals, the need for mentoring, the need for executive and team leadership training, and issues of promotion to senior leadership positions.

A draft agenda is under development and will have broader input from additional committee members to be named.

Meeting Attendees:

Conference attendees (approximately 300) will be required to register, but the conference will be free to attendees. Invited attendees will include deans of academic health centers, public affairs officers, and professional organizations.

Meeting Format:

The conference will have a feature similar to that of a “consensus conference” with a small committee, chosen prior to the conference, to track the sessions and to meet at the end of the first day to summarize the presentations and discussions and to provide the summary the following day as well as a draft of outcomes and action plan for moving forward. The draft will be further discussed after the presentation on day 2. This committee will work together to draft the summary on the evening of day 1 in preparation for presentation on day 2.

Each speaker can address the programs across the range of barriers but may choose to highlight a particular program in the organization (i.e., mentoring etc).

To foster dialog and participation, the meeting format will include a question and answer session after each speaker as well as a short panel discussion at the end of each block of sessions.

Expected Outcomes:

Conference committees will develop a list of real or potential "best practices" along with consideration of potential costs that can be adapted or piloted by academic health centers to improve the retention and advancement of women in biomedical careers. The conference attendees will discuss the specific roles of the NIH and other organizations in increasing the career success of women in the biomedical sciences. Conference summary to be placed on web and will be published.

An ongoing working group (comprised of representatives from NIH, pharma and professional organizations) will be established to track and provide evaluation summaries of current and new programs in industry, government, as well as academic health centers, that address the career needs of women in biomedical research.

Subcommittee 2, 3, 4, 5 – Extramural funding mechanisms and policies, gender equity in NIH funding reviews and committees, and demographics of extramural funding of applicants and recipients

CHAIR: Norka Ruiz Bravo, Ph.D. (OD/OER)

MEMBERS: Patricia Grady, Ph.D., R.N., F.A.A.N. (NINR), Taylor Harden, Ph.D. (NIA), Ruth Kirschstein, M.D. (OD and NCCAM), Donald Lindberg, M.D. (NLM), Becky Lyon (NLM), Pamela Marino, Ph.D. (NIGMS), Sherry Mills, Ph.D. (OD/OER), Elaine Ostrander, Ph.D. (NHGRI), Joyce Rudick (OD/ORWH), Walter Schaffer, Ph.D. (OD/OER)

Subcommittees 2, 3, 4, and 5 represent a consolidated effort to explore the participation of women in extramural programs, document the career stages at which participation falls below parity with men, and determine whether those changes are related to NIH policies. The consolidated subcommittee also was asked to consider specifically prevailing policies associated with extramural grants that might limit the availability of support for child care, replacement of technical or administrative support, and the ability to extend the time period for a grant to accommodate family care issues. The subcommittee was aware that many of these policies are subject to federal cost-accounting standards, but made recommendations in areas where policies could be changed or information about the policies could be disseminated to help level the playing field for women.

This subcommittee considered the following National Academies recommendations:

- A. collect, store, and publish composite information on demographics, field, award type and budget request, review score, and funding outcome for all funding applications,
- B. make it possible to use grant monies for dependent care expenses necessary to engage in off-site or after-hours research-related activities or to attend work-related conferences and meetings,
- C. create additional funding mechanisms to provide for technical or administrative support during a leave of absence related to caregiving, and
- D. establish policies for extending grant support to the extramural community during and after a leave of absence.

A. Collect, store, and publish composite information on demographics, field, award type and budget request, review score, and funding outcome for all funding applications

This information has been updated and is ready to be posted. A summary of the findings appears below.

Data indicate that women have made substantial gains in nearly all NIH extramural programs and are close to parity with men in predoctoral and postdoctoral research training as well as in mentored career development awards (see Figure 1, below). Women continue to lag behind

men as Principal Investigators on NIH research grants, where they comprise less than 22 percent of the PIs on research grants that include research project grants, center grants, small business awards and others. The situation for women on traditional research grants (R01, R29, R37) called R01 equivalent grants is slightly more encouraging (see Figure 2). Women still lag behind men at 24 percent of all PIs, but success rates on new R01s is almost identical for men and women. In addition, R01 awards are slightly larger for women than for men. Female PIs comprise a lower than the proportion of all PIs when compared to female [medical school faculty](#) of all degrees, which is reported to be near 33 percent in the 2006 academic year. This information has been included in a comprehensive slide set that is planned for inclusion on the OER website to be launched by the end of June. These data also will be referenced on the ORWH website.

The precipitous drop in the participation of women at the Principal Investigator level compared to the pool of graduate students, postdoctorates, and recipients of mentored career development awards suggest that there are specific barriers to the entry of women into positions from which they can apply for grants or there are specific barriers to their participation as Principal Investigators. For R01 equivalent grants (R23, R29, R37), comparable success rates and grant size suggest that female applicants are not disadvantaged in the review process with respect to their male counterparts. It is still possible, however, that the additional demands of pregnancy, birth and child care and the lack of accommodations of the associated demands may contribute to the low transition rates to independence and faculty appointments for women. The subcommittee felt that it was important to consider carefully the policies that might be available to accommodate family care responsibilities that frequently fall to women involved in NIH supported extramural research.

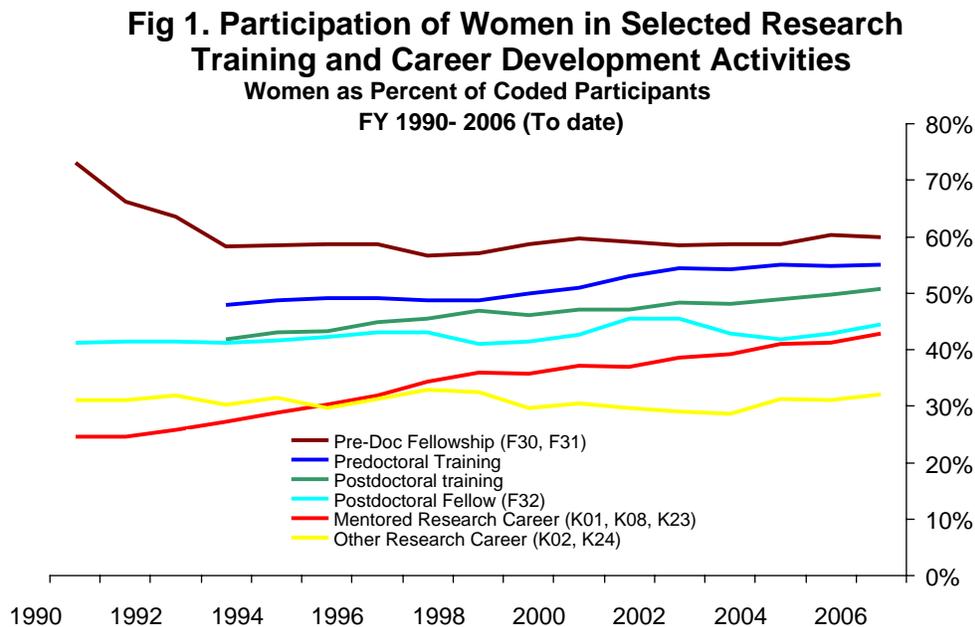
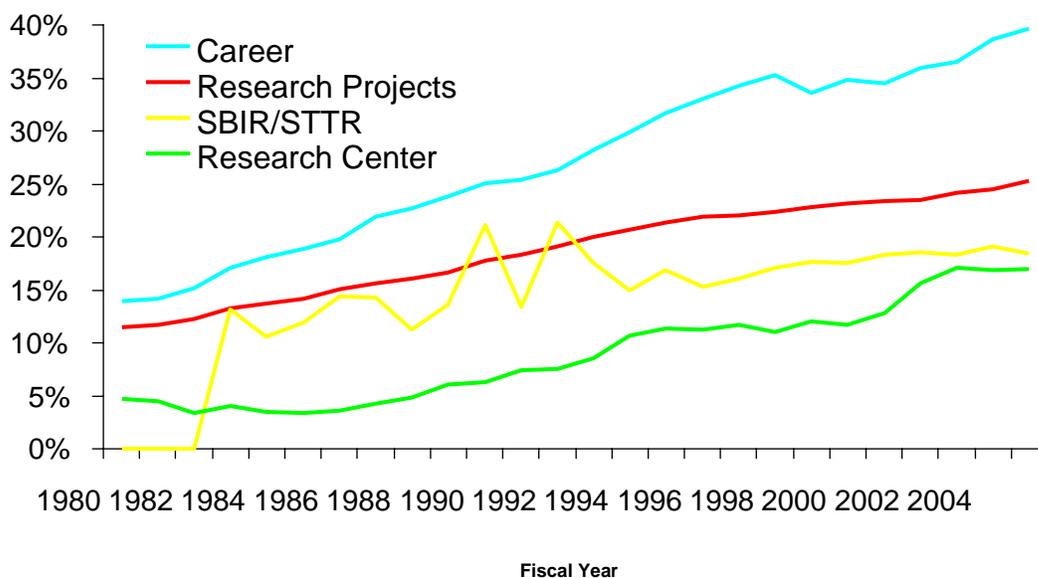


Fig 2. Female Investigators as a Percent of Total Awards by Award Mechanism FY 1980-2005



B., C., and D.

The subcommittee investigated federal policies associated with child care, parental leave, extension of time, and the availability of temporary replacement help to understand the benefits available under extramural NIH grants. The subcommittee found that these federal policies are generally driven by federal cost accounting principles and rules, but that sufficient policy flexibility exists to cover many of the recommendations of the National Academies report. For clarity, the policy questions are aggregated by topic and presented in a Question/Answer format.

All recommendations will undergo further analysis to determine their environmental impact and anticipate to the extent possible downstream policy or budgetary effects on NIH and on the extramural community.

Parental Leave and Child Care Expenses:

1. Can institutions use grant funds for dependent care expenses?

Generally this is an employee benefit. Alternatively, these costs may be incorporated into indirect costs. If costs associated with child care are available as a benefit to all employees at the grantee institution, it is an allowable cost to a federal grant. It must however be charged consistently regardless of how employees are supported. (See Grants Policy Statement at http://grants1.nih.gov/grants/policy/nihgps_2003/index.htm.)

2. Can conference grants be used to support child care at conferences and meetings?

The HHS Division of Cost Accounting, which negotiates indirect costs for extramural institutions, was not aware of any institution that incorporated child-care into travel cost policies. Normally, travel costs associated with project relevant conferences can be charged

to an NIH research grant, but only when such charges are consistent with travel policies at the grantee institution.

The consolidated subcommittee noted that many NIH sponsored conferences make arrangements for child-care services for attendees, but final arrangements and costs are borne by the attendees who use such services.

3. Can institutions be identified that include costs for child care or temporary administrative support in their fringe benefits or indirect cost rates?

Child care: The HHS Division of Cost Accounting circulated this question to field offices and found that many grantee institutions offer subsidized child care centers and, in those cases, have negotiated costs into their benefit rates. No grantee was identified that covers such costs through indirect costs.

Administrative support: Administrative support cannot be covered by direct costs for this purpose. Direct charges for administrative costs are only allowable for ‘major projects’ as defined in [OMB Circular A-21](#) and the provision of temporary support for this purpose is not included. Institutions, however, may use indirect costs to cover administrative support related to relevant grant activities.

4. Can NIH extend parental leave available for the birth or adoption of a child?

Yes, such costs may be charged to NIH research grants, but only if parental leave is a part of the benefit package available to all employees at an institution.

A separate policy applies to Ruth L. Kirschstein National Research Service Award (NRSA) recipients because they are not considered employees of the grantee or sponsoring institution. Leave policies under NRSA Training Grants permit 30 calendar days of parental leave per year and 15 calendar days of sick leave provided such leave benefits are available to all comparable students and/or postdocs. (See <http://grants.nih.gov/grants/guide/pa-files/PA-06-468.html>).

Pilot:

NLM is considering a pilot that would permit up to 60 calendar days of parental leave on NLM training grants when such benefits are in accordance with the grantee’s leave policies.

Temporary Support for Key Personnel with Family Care Responsibilities:

1. Can federal grants pay for interim administrative support to accommodate family care needs?

Yes, but only if such provisions are included in the indirect cost formulation. Costs associated with administrative support must almost always be charged to indirect costs. Direct charges for administrative costs are only allowable for ‘major projects’ as defined in [OMB Circular A-21](#) and the provision of temporary support for this purpose is not included.

2. Can federal grants pay for interim technical support to accommodate family care needs?

Technical, project-related support for Key Project Personnel, who for health, child-care or other reasons need to be away from the project, can be covered from direct costs under a grant. Funds can be rebudgeted from within the grant or grants can be administratively supplemented if funds are available.

NIAID PCTAS Pilot:

Although the above policy applies to all NIH grants, NIAID has developed the PCTAS (Primary Caregiver Technical Award Supplement) Program (<http://www.niaid.nih.gov/ncn/training/pctas.htm>) for postdoctoral scientists in order to formalize this broadly available policy into a program. Since its implementation in fiscal year 2004, twenty-eight applications have been received and four have been supported.

NLM PCTAS Pilot:

NLM is considering a program similar to the NIAID PCTAS Program.

3. If a PI is going to be absent for an extended period of time can the institution request appointment of an interim PI?

Yes. Provisions associated with the extended absence of the PI or other key personnel are described in the Grants Policy Statement and are permitted with prior approval. Absences of three months or more and proposals for substitution require notification and approval by NIH. See

http://grants2.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part7.htm#Change_in_Status_Including_Absence_of_Pr

Extension of NIH Grants to accommodate Care-Giving Responsibilities:

1. Can the period of a federal grant be extended for researchers who take a leave of absence due to care-giving responsibilities?

Budget and project periods can be extended at no cost on a case-by-case basis.

Administrative supplements also can be provided if funds are available. If the PI is going to be absent for an extended period, the institution may seek approval for an interim PI. NIH permits individuals to extend their career development awards in the case of pressing family responsibilities.

Although this capability is available under standard policies, it has been selectively articulated by NHLBI at http://www.nhlbi.nih.gov/funding/training/redbook/sl_guide.htm.

Need for A Reminder About Discrimination:

1. **Should NIH include a statement about discrimination on the basis of sex or ethnicity as a means of education about bias?**

The subcommittee did not feel that this was necessary. Such statements are already included in each grant as a term and condition of award. All recipients of NIH grant funds must provide assurance that they comply with applicable laws related to discrimination. Institutions must file an Assurance of Compliance Form 690 that details requirements for compliance with the Civil Rights Act, the Rehabilitation Act, Title IX of the Education Act, and the Age Discrimination Act. Jurisdiction over these matters rests with HHS Office of Civil Rights and the Equal Employment Opportunity Commission. If there is overt bias at any level including the faculty level, it can be addressed through normal channels.

Subcommittee 6 – Research on the efficacy of programs to reduce gender bias and to support the careers of women researchers

CHAIR: Raynard Kington, M.D., Ph.D. (OD)

MEMBERS: Amy Adams, Ph.D. (OD), Jeremy Berg, Ph.D. (NIGMS), Patricia Grady, Ph.D., R.N., F.A.A.N. (NINR), Camelia Owens, Ph.D. (OD), Belinda Seto, Ph.D. (NIBIB), Janine Smith, M.D. (NEI)

Issue:

This subcommittee considered the National Academies recommendation to expand support for research on the efficacy of organizational programs designed to reduce gender bias, prejudice, and stereotype threat, and the role of leadership in achieving gender equity.

Proposed Solutions:

Approach

The subcommittee discussed two different types of evidence

- evidence on the efficacy of programs to support the careers of women researchers
 - provides the most direct information on what types of programs NIH might support
- evidence on the pathways by which bias in decision making and assessment of performance may affect the careers of women researchers
 - important for documenting the ways in which the careers of women scientists may be affected by systematic biases against women that may distort evaluation of the scientific performance or potential of women
 - may provide clues as to which types of programs and policies may be most effective in supporting women's careers

Because the evidence base on how various forms of bias negatively impact the careers of women researchers was well-reviewed in the National Academies report, the subcommittee chose to focus attention on the evidence on the efficacy of programs to support the careers of women researchers.

State of the Evidence Base

Several programs exist to help support the careers of women in the sciences and engineering. To explore the efficacy of these programs, representatives for the programs listed below were contacted:

- Committee on the Advancement of Women Chemists (COACH)
- Clare Booth Luce (CBL)
- University of Wisconsin – Women in Science & Engineering Leadership Institute (WISELI)
- Association for Women in Science (AWIS)
- NSF ADVANCE
- Yale Women's Faculty Forum (WFF)

While the programs vary in the breadth and scope of their support, there is little information on the impact of the programs. This lack of information may be due to the relatively short period of time that these programs have been in place (most are less than 5 years old), but the age of these programs may be only part of the problem. Many programs to support diversity in science in other areas have been in place for many years and have not been rigorously assessed. Assessing the impact of the programs is inherently difficult for many reasons including the relatively small numbers of participants in any one program, especially programs on a single campus, and problems in determining appropriate comparison groups.

Despite the lack of definitive data on the impact of these programs on the careers of the women who have participated, process metrics such as the number of women hired and supported as a result of these programs and the degree of support from top university officials suggest growing institutional acceptance of initiatives to address the challenges women face in the sciences and engineering.

While some of the extant programs to support the careers of women scientists have conducted process evaluations, more rigorous outcome assessments are clearly needed.

Programs Under Consideration

Some of the avenues being considered include:

- rigorously assessing the impact of programs to support women researchers,
- partnering with foundations and private industry to develop and implement programs to support the careers of women researchers,
- creating compendium of NIH programs and analyzing program effectiveness,
- researching interventions to reduce the impact of unconscious bias in decision making,
- researching and rigorously analyzing new metrics to abate gender bias in performance evaluation of researchers, and
- researching the magnitude of the “female tax” and its impact on the careers of women in science.

Subcommittee 7 – Enforcement of Title IX and existing anti-discrimination laws

Comments/Advice: Catherine Manzi, J.D. (OD/OGC)

Issue: The Working Group considered the National Academies recommendation that federal agencies should lay out clear guidelines, leverage their resources, and rigorously enforce existing laws to increase the science and engineering talent developed in this country.

Proposed Solution:

The Office of the General Counsel (OGC) presented an overview to familiarize Working Group members with Title IX and the procedures for its enforcement.

- Title IX is a significant tool in addressing discrimination that may prevent women from participating in the educational activities of their choice.
- Title IX says that “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”
- Title IX applies to educational programs or activities operated by recipients of federal financial assistance and to Federal agencies via executive order.
- Gender disparity alone does not necessarily indicate a violation of Title IX.
- When an institution receives any federal funds, all of the institution’s educational programs and activities are covered by Title IX, even if not directly supported by federal assistance. Title IX generally applies to all aspects of an educational program or activity.
- The Office for Civil Rights (OCR) of the Department of Health and Human Services (HHS) has jurisdiction HHS-wide for compliance. If the Director of OCR finds that a recipient of federal funds has discriminated against persons on the basis of sex in an education program or activity, as prohibited by Title IX, the recipient must take such remedial action as the Director deems necessary.
- The preferred method for resolving Title IX violations is for the institution to undertake voluntary resolution. Suspension of funds has occurred only in rare cases.
- Discrimination complaints received by NIH are directed to OCR.

Because OCR has jurisdiction HHS-wide for Title IX compliance, the Working Group determined that NIH will continue to refer Title IX complaints to OCR.

Subcommittee 8 – Mentoring programs

CHAIR: Lawrence Tabak, D.D.S., Ph.D. (NIDCR)

MEMBERS: Taylor Harden, Ph.D. (NIA), Catherine Kuo, Ph.D. (NIAMS), Pam Marino, Ph.D. (NIGMS), Ira Pastan, M.D. (NCI), Joyce Rudick (OD/OIR), Joan Schwartz, Ph.D. (OD/OIR), Kathy Zoon, Ph.D. (NIAID)

Issue:

This subcommittee considered the recommendations from the Office of Intramural Research Second Task Force on the Status of Intramural Women Scientists and the community (1) to determine how to increase the use and utility of current programs and mechanisms that support mentoring in the intramural and extramural NIH community, and (2) to develop new conferences, programs, or funding mechanisms to support mentoring programs and networks.

Proposed Solutions:

The subcommittee identified three major challenges related to the mentoring of scientists that may disproportionately affect women during their professional development:

- The unavailability of trained mentors, including those familiar with issues that are frequently important to and/or disproportionately affect women.
- The absence of avenues for networking among women scientists that are vital to providing information and support, as well as avoiding “feelings of isolation,” and pitfalls.
- The scarcity of structured programs or training opportunities offering career development for scientists, including those that address issues of concern to women and/or issues that disproportionately affect women.

Observations/Comments

1. Scientists require both role models and mentors during their careers. Members of either gender can play these roles but few are available with appropriate training and experience to do so. Because of the paucity of women and minority scientists, greater demands may be placed on an individual woman or minority scientist’s time to serve these critical roles.

2. Although there are many loci along the career “pipeline” that are worthy of attention the committee felt strongly that interventions related to mentoring should be targeted to: (1) those postdoctoral fellows and trainees that are preparing to enter the workforce as independent investigators, (2) tenure-track investigators and (3) those who have left active research careers for family responsibilities and wish to return.

4. Over-dependence on good will and a patchwork of resources and personnel may doom good initiatives and programs to failure. NIH leadership (both within the Office of the Director and at Institutes and Centers) must be unambiguous in their support for these programs and initiatives developed to ameliorate disparities. Appropriate resources must be allocated to enable program success. The person to be held accountable for the success or failure of each

initiative/program must be clearly identified and provided authority and resources commensurate with responsibility.

5. The subcommittee acknowledges that the ultimate responsibility for mentorship within the intramural program lies locally within each Institute and Center. However, the sense of the committee is that there is unevenness across the intramural programs and recommendations are made to redress this.

6. Particular attention must be paid to women who are members of underrepresented groups at all levels of career development.

Recommendations

Mentoring Programs under consideration include an NIH-wide Mentoring Program for Scientists that would address both postdoctoral fellows and tenure track investigators, an NIH-wide Mentorship forum, and a Mentoring Program for Scientists at grantee institutions.

Other items under discussion include mentorship awards, incentives for excellence in mentoring, and flexible work arrangements.

Subcommittees 9 and 10 – Changing the NIH work culture, including improvement of the recruitment, retention, reentry and advancement of women at the NIH

CHAIRS: Michael Gottesman, M.D. (OD/OIR) and Ruth Kirschstein, M.D. (NCCAM and OD)

MEMBERS: Edward Giniger, Ph.D. (NINDS), Patricia Grady, Ph.D., R.N., F.A.A.N. (NINR), Story Landis, Ph.D. (NINDS), Germaine Buck Louis, Ph.D. (NICHD), Elaine Ostrander, Ph.D. (NHGRI), Ira Pastan, M.D. (NCI), Joan Schwartz, Ph.D. (OD/OIR), Janine Smith, M.D. (NEI), Lawrence Tabak, D.D.S., Ph.D. (NIDCR), Kathy Zoon, Ph.D. (NIAID)

Issue:

This subcommittee considered changes to the work culture at NIH, and will work towards eliminating possible impediments to the recruitment, retention, reentry, and advancement of women scientists in the NIH Intramural Research Program.

A. Need for mentoring

The survey results of the Second Task Force on the Status of Intramural Women Scientists showed that mentors provide critical advice about specific career and scientific opportunities, offer advice on how to negotiate for positions, and provide information on the tenure process. Women need the kind of support that mentors can provide in enhancing their self-confidence and their ability to negotiate, and in ensuring that they are familiar with all the regulations and policies that affect their research (Second Task Force on the Status of Intramural Women Scientists).

Proposed Solutions:

- Each Scientific Director will ensure that every tenure-track investigator has a second mentor or a mentoring committee. For women, any committee should include a recently tenured woman scientist.
- Every Scientific Director (or delegate) should meet annually with each tenure-track investigator to monitor progress, identify problems, and enable success.
- Promote invitations to tenure-track scientists to give seminars across the NIH to increase scientific feedback and mentoring.

B. Need for role models

The availability of female role models who are outstanding scientists ensures that tenure-track women have optimal networking opportunities and are able to interact with women who have been successful in achieving both personal and scientific goals.

Proposed Solutions:

- Ensure continued support for the WSA seminar series, *The Anita B. Roberts Lecture Series: Distinguished Women Scientists at NIH*, and the NIH Directors Margaret Pittman lecture, that highlight accomplished female senior investigators in the NIH Intramural

Research Program and includes a networking opportunity for tenure-track women with the speaker after the talk.

- Ensure inclusion of women speakers in all NIH seminar series, symposia, workshops, and conferences by reminders to our Principal Investigators that this is a high priority for the NIH.
- Continue to increase representation of women scientists in senior investigator and leadership positions at the NIH.

C. Need to provide necessary training for professional development

Most scientists receive no training in leadership or management skills, essential to their professional development. Furthermore, women are more likely to lack the skills necessary to self-promote and to manage up to senior level so that they can negotiate increased resources and salary (Second Task Force on the Status of Intramural Women Scientists).

Proposed Solutions:

- Make the “How to Succeed as a PI” course mandatory for all new tenure-track investigators.
- Offer assertiveness/managing up workshops at least yearly for tenure-track and senior investigators.
- Offer leadership and management skills workshops yearly to senior investigators.
- Offer training in how to be a good mentor to all senior investigators and encourage attendance.

D. Need to change the NIH work culture to enhance flexibilities

The NIH is not perceived as a female-supportive environment, in part because government rules make the work environment less flexible, but also because some supervisors are not sympathetic to the need to enable greater flexibilities in the balancing of family and career issues. While there are many options available that can assist in creating these flexibilities, both supervisors and scientists are frequently unaware of them.

Proposed Solutions:

- Develop a package of materials that describes all workplace flexibilities that are available (including time, leave, telecommuting, and FSA accounts that can be used for childcare) to ensure that all NIH staff are aware of workplace flexibilities.

E. Need to enhance availability of child/family care options

Most scientific staff are married with children (Second Task Force on the Status of Intramural Women Scientists). Tenure-track investigators in particular are at the child-bearing age and likely to be affected by the need for childcare, while senior investigators may need assistance with elder care.

Proposed Solutions:

- Enhance the availability of on-site or nearby childcare, both for infants and young children.
- Provide flexibility for parents to work from home if necessary, despite family responsibilities, consistent with government telework policies and flexibilities.

- Develop ways to provide automatic reset-the-clock to tenure-track investigators for family reasons – work with lab/branch chiefs, Scientific Directors and the Office of Human Resources to identify those who qualify.

F. Need to develop better recruitment strategies

The NIH should enhance its reputation as a family-friendly place to work, through advertisements of the policies put in place in response to this initiative (childcare options, flexible work schedules, etc.).

Subcommittee 11 – Integration of women into bioengineering fields

CHAIR: Catherine Kuo, Ph.D. (NIAMS)

MEMBERS: Robert Balaban, Ph.D. (NHLBI), Christine Kelley, Ph.D. (NIBIB) Alan Koretsky, Ph.D. (NINDS), Joan McGowan, Ph.D. (NIAMS), Jennifer Pohlhaus, Ph.D. (OD/ORWH), Belinda Seto, Ph.D. (NIBIB), Rocky Tuan, Ph.D. (NIAMS)

Issue:

Ensure that the career challenges faced by women in bioengineering fields are considered and develop resources for the career development and advancement of female bioengineers

A. Few mentors and role models for women engineers at the NIH

This subcommittee proposes to educate intramural and extramural NIH employees about the role that engineers and bioengineers can play in the interdisciplinary biomedical field and the value of quantitative approaches to biology, and creation of a bioengineers mentoring network.

B. Societal expectations of women in bioengineering and biophysical fields

Women in science continue to face a pervasive bias in regard to their aptitude in quantitative and physical sciences. These poor societal expectations of women in bioengineering and biophysical fields may lead to the large disparity in the relative number of girls that choose bioengineering and biophysical research careers. Proposals include development of an educational video “Women are Bioengineers”, creation of a website on engineering and bioengineering careers, and encouragement of inclusion of bioengineering and biophysical sciences in the K-12 outreach programs.

C. Gender gap in bioengineering and biophysical research careers

In addition to the need for more women in bioengineering fields, there is a need to encourage the inclusion of women in engineering (non-bioengineering) disciplines that are involved in biomedical research. Proposals under consideration include transition grants for engineers, targeted outreach and recruitment, and expansion of current NIH programs to include bioengineering.

Other Issues

Other issues under discussion include the poor advancement of women engineers in academia, the need for more ties between NIH and extramural bioengineering societies, and the expectation that engineers in biomedical fields are expected to provide “service” to scientists, which may create a problem that is especially difficult for women engineers, because of societal expectations and culture.

Office of Research on Women's Health (ORWH) Initiatives

1. Mentoring Successes at BIRCWH and WRHR institutions

The ORWH will facilitate discussions of successful mentoring at Building Interdisciplinary Research Careers in Women's Health (BIRCWH) and Women's Reproductive Health Research (WRHR) institutions. The discussions should focus on the training of mentors and the differences and special issues related to mentoring women and individuals from underrepresented groups.

2. National Leadership Workshop on Mentoring Women in Biomedical Careers

The ORWH will coordinate efforts to develop a National Leadership Workshop on Mentoring Women in Biomedical Careers to be held at the National Institutes of Health in 2008. The National Leadership Workshop will be informed by the "Best Practices" workshop of the Working Group, and will be targeted toward biomedical researchers (men and women) at three levels: postdoctoral fellows, junior investigators, and senior investigators. Training courses already developed by the Office of Intramural Research, such as Speaking about Science, Writing about Science, and Assertiveness Training will be considered as possible tracks during the workshop. A small planning committee will be convened to determine the focus of the workshop, including guidelines for effective mentoring for career advancement, with special consideration for the special needs of women and individuals from underrepresented groups.

3. Reissue of Reentry Program Announcement and Clarification of Eligibility for Postdoctoral Fellows (July 2007)

The ORWH established the Reentry Supplement Program in 1992 as a pilot program to help fully trained scientists (women and men) re-establish their careers in biomedical or behavioral science after taking time off to fulfill familial responsibilities. After three years as a successful pilot program, it was expanded to a trans-NIH program.

The Reentry Supplement Program will be reissued in July 2007, and will be supported by NCI, NEI, NHGRI, NHLBI, NIA, NIAAA, NIAID, NIAMS, NIBIB, NICHD, NIDA, NIDCD, NIDCR, NIDDK, NIEHS, NIGMS, NIMH, NINDS, NINR, NLM, FIC, NCCAM, NCRR, ODS, and ORWH. To address suggestions for improving the Reentry Supplement Program, ORWH has initiated a clarification of the eligibility requirements so that individuals who were postdoctoral fellows at the time they left active research will be specifically eligible to apply. The new program announcement is expected to state that candidates "must have been in a postdoctoral or faculty position at the time they left active research".

National Library of Medicine (NLM) Initiatives

The National Library of Medicine is considering pilot programs within its grants to provide additional support for grantees with child/ dependent care needs. Programs under discussion include:

- extension of leave for birth or adoption of a child,
- a modification of the NIAID Primary Caregiver Technical Assistance Supplements (PCTAS) program,
- extension of paid leave for caregivers, and
- help for trainees who are caregivers to attend meetings.