

## **National Institutes of Health**

### **Office of Intramural Research**

#### **Second Task Force on the Status of Intramural Women Scientists**

##### **Summary of Activities, Findings and Recommendations**

**May 2007**

### **Background**

In 1991, Dr. Bernadine Healy, Director of the NIH, established a Task Force on the Status of NIH Intramural Women Scientists and charged it with the identification of areas of concern related to intramural women scientists. The Task Force made a series of recommendations for ameliorating areas of concerns to the Deputy Director for Intramural Research and the Institutes' Scientific Directors on November 4, 1992. A number of changes have been successfully implemented (viz., those pertaining to gender pay equity and hiring practices) since the completion of the first Task Force, but little progress has been achieved with regard to the number of tenured female investigators. Specifically, a flat temporal pattern has been observed since 1994, the year in which NIH implemented a formal tenure-track process ( $\approx 18\%$  tenured NIH investigators are women). This figure contrasts sharply with approximately an equal number of male and female postdoctoral fellows and approximately 25% of tenure-track investigators currently.

The Office of Intramural Research convened a Second Task Force on the Status of NIH Intramural Women Scientists in March 2003:

- To identify impediments in the recruitment of women into tenure-track investigator and tenured senior investigator positions within the NIH intramural program;
- To identify impediments to the retention and tenuring of female tenure-track investigators;
- To examine career tracks/appointment mechanisms chosen by men and women and the underlying reasons for their choices; and
- To provide recommendations to the NIH Deputy Director for Intramural Research and the NIH Director regarding administrative and structural changes needed for the amelioration of impediments.

Four surveys were developed for targeting to distinct NIH populations of scientists. They are: 1) tenure-track investigators who left NIH - 101 tenure-track investigators (68 men and 33 women) who were appointed to their positions on or after 1994 but who left their position between 1994 and 2003 before receiving tenure; 2) current tenure-track and newly tenured senior investigators - 434 investigators (334 men and 100 women) who were appointed to tenure-track

positions since 1994, 153 of whom have since been tenured; 3) staff scientists and clinicians, and research and clinical fellows - 787 staff scientists, 193 staff clinicians, 930 research fellows and 325 clinical fellows who were appointed to their positions since 1994 (respondents included 508 men and 290 women); and 4) postdoctoral fellows - 2,487 postdoctoral fellows (respondents included 746 men and 559 women), including IRTAs (Intramural Research Training Award), CRTAs (Cancer Research Training Award) and Visiting Fellows, as well as a few special volunteers coming on their own fellowship money.

The Task Force was organized into four working groups responsible for the development of the survey instruments targeted for each of the above populations of NIH scientists. Web-based versions of three surveys (i.e., tenure-track/tenured, research staff, and postdoctoral fellows) were prepared by the contractor and distributed to the target populations between May 7, 2004 and June 25, 2004. A computer-assisted telephone interview was used for tenure-track investigators who have left NIH and was implemented by the government contractor between March 26, 2004 and April 30, 2004. Descriptive statistics were utilized for summarizing the data obtained in each of the four surveys, primarily to assess gender differences in reporting. Statistical significance was evaluated with the Chi-square ( $\chi^2$ ) statistic or Fisher's Exact Test where appropriate for categorical data and the t-test for continuous data. Given that the intent of this survey was for needs assessment and NIH program planning purposes, an *a priori* decision was made to explore responses by gender without statistical adjustment for the number of comparisons.

## Summary

The surveys identified a number of issues that need to be addressed to make the NIH a more attractive place for women scientists. However they did not address the fundamental issue, that so few of our tenured and tenure-track PIs are women. A specific set of recommendations have been included to address that. Adaptation of all the recommendations would make the NIH Intramural Research Program a model for the country as a place where women scientists thrive and succeed.

One common theme through the four surveys was that women, significantly more than men, reported that the NIH environment was not female-supportive – this was true at every level from postdoctoral fellows to principal investigators. Interestingly, only current tenure-track and tenured scientists perceived no difference in issues of equity and fairness – more women than men in all other groups felt that was a problem. More women than men identified issues impacting their ability to balance family and career. Most men and women, respectively, had spouses and/or children (73% and 67% among postdocs, 79% and 68% among research staff, and 94% and 93% of tenure-track and tenured investigators). Women in all groups reported a greater need for flexibility in the work schedule and in leave policies. Tenure-track women specifically noted the importance of the stop-the-clock mechanism for allowing them to function. Availability of childcare was important for female postdocs, research staff, and those women who left the tenure-track, but was not specifically noted by current PIs. Geographical constraints impacted women more than men at all levels, while help with dual careers was noted as a positive factor by

men. Overall, family considerations were considered more important by women than men. Presumably, each of these factors was construed by women to indicate the lack of a female supportive environment at NIH. However, the survey did not formally define “female supportive environment”.

No gender disparity was noted in terms of access to mentors. Results from the Left Tenure-track Survey suggested that mentors have a major impact on encouraging individuals to consider NIH positions, while research staff reported that one motivating factor for coming to the NIH was the availability of a mentor. The quality of mentoring was reported to be fair or poor by both men (64%) and women (79%) in the Left Tenure-track survey; 36% of male and 24% of female current PIs reported having no mentor. Since mentors were reported to offer advice on negotiating, the lack of mentoring may be responsible in part for departed tenure track women stating they had less negotiation upon hire and were less satisfied with the terms of their negotiation. Among current PIs, over 60% of men and women reported having negotiated with the branch or lab chief for the terms of the position; however, men disproportionately reported having negotiated with the Scientific Director in comparison to women. Despite this potential negotiating advantage, men reported being less satisfied than women with the negotiated terms of office and lab space.

Another overall finding had to do with women’s perceptions of their degree of preparedness and ability to assume a PI position. Strikingly among the postdocs, only 40% of women compared with 59% of men thought they could achieve a PI position, despite the similarities of their self-assessments about their professional skills. Among research and clinical fellows, as well as staff scientists and clinicians, men reported being more likely to apply for an available tenure-track position than women. Once in tenure-track, men were more confident that they knew about the tenure process; that was true among the group that left tenure-track as well as the group currently on tenure-track. An additional aspect of gender perception related to qualification for a PI position was that women leaving tenure-track positions and research staff women reported lower productivity than male counterparts as measured by the average number of publications and invited seminars. Both female postdocs and research staff were more likely than men to report publishing and oral communication as being stressful.

Taken as a whole, these results suggest that the NIH Intramural Program needs to change its culture to provide a more female-supportive environment, one in which balancing family with career is less stressful, thereby allowing women to fully meet the demands of tenure and independent research. Women need the kind of support that mentors can provide in enhancing their self-esteem and their ability to negotiate, and in ensuring that they are familiar with all the regulations and policies that impact their research. Another set of recommendations address these issues. Overall the Task Force believes that implementation of the recommendations described below will go a long way toward enhancing recruitment and retention of women scientists within the Intramural Research Program.

## **Recommendations from the Task Force**

### **1 – Actions for Members of the Task Force**

Establish a support group for female tenure-track investigators (TTIs) comprising female NIH senior investigators that would also provide networking opportunities. Set up interactions/workshops with women who have been successful in combining family and a career in science

Promote inclusion of women speakers in NIH-sponsored meetings and symposia

Establish a “Take a TTI woman to lunch” program

### **2 – Actions for Scientific Directors**

Establish a committee/mentoring panel for each TTI consisting of up to three senior investigators, who may come from the TTI’s IC (different lab or branch) or another IC, all working in the same scientific area – this would help ensure that none of the TTIs end up ‘in trouble’ and would provide strong networking support and collaboration opportunities. For women TTIs, one recommendation would be to include a recently tenured woman scientist.

Establish an annual or biannual survey of all the TTIs to monitor problems and hopefully improvements

Arrange for TTIs to meet annually and individually with their SDs

Arrange for availability of yearly mentoring training, that could fulfill the performance plan element on mentoring, so that supervisors are better equipped to help their TTIs

Establish mechanisms to assist in hiring a qualified spouse.  
Look into establishment of relationships with local universities and the Naval Hospital

Ensure that search committees have several female senior investigators and tenure-track investigators as members. Arrange for female candidates to meet with other women scientists.

Arrange for automatic stop-the-clock for any pregnant TTI.

### **3 – Actions for Women Scientist Advisors (WSAs)**

Promote the new seminar series established by the WSAs that will highlight intramural women senior investigators as speakers, and will be followed by a discussion with female TTIs on topics such as balancing career/family issues. This will establish ongoing communication between tenure-track women and WSAs.

Run focus groups of tenure-track and tenured investigators to determine what the factors are that contribute to a female-supportive environment

### **4 – NIH-Wide Actions - Changing the Work Culture**

Develop a document that details clearly work hours and leave policies and provides a list of possible flexibilities that could be given to every TTI along with all senior investigators, lab/branch chiefs and AOs – ie, change the ‘work culture’ to be as flexible as possible.

Ensure that all new TTIs know about the possibility of stop-the-clock (for periods from a few months to up to one year) and part-time work <http://www1.od.nih.gov/oir/sourcebook/irp-policy/tenure-track.htm#advantages>

Allow flexible work schedule options

Emphasize and encourage telecommuting, especially when children are sick. The PI should be given all of the technology (laptop, blackberry, VPN account, etc) to facilitate this

Counsel newly selected female tenure track candidates on negotiating pay and resources to ensure equity

Assemble a packet containing all the information on work schedules, stop-the-clock, telecommuting, etc. and provide, from the Office of Intramural Research, to each new TTI upon arrival

Develop, in collaboration with the Office of Research on Women’s Health, funding opportunities to support re-entry into research after a partial or full absence due to family or personal needs, or re-training for those who have been engaged in non-research positions

### **5 – Training for Tenure-track Investigators**

Design and provide self-promotion/managing up/assertiveness classes for TTIs

## **6 – Childcare Policies**

Provide excellent quality child-care opportunities that can accommodate the children of all staff, including postdoctoral fellows

Work on a mechanism whereby a pregnant TTI would have priority at private childcare facilities

Examine the possibility of using modular space units for expanded infant daycare on campus (on the site for the future new Childcare facility)

Develop mechanisms to ensure proper child-care facilities at scientific conferences and workshops to alleviate some of the difficulties associated with professional travel

## **7 – Policies and Processes for Postdoctoral Fellows**

Foster mentoring at the postdoctoral level

Develop, in collaboration with the Office of Research on Women's Health, funding opportunities to support re-entry of postdocs into research after a partial or full absence due to family or personal needs

Launch a "postdoc retention initiative" aimed at facilitating the retention of female postdocs in the PI career path. This initiative would be located within the NIH Office of Intramural Training and Education and supported by an advisory committee that includes both postdocs and PIs. The focus will be on:

- introducing female postdocs to PIs who have successfully combined career and family
- providing postdocs with information regarding childcare resources and career options
- establishing small work groups in which postdocs can discuss considerations and concerns regarding career path choices
- creating opportunities for networking with former postdocs, TTIs and senior investigators
- providing grant writing courses, courses to enhance negotiation skills, and other types of training

The advisory committee should follow up on the findings of the survey, to determine whether the trend of female postdocs leaving the PI career path

continues and to determine the reasons for the difference between male and female postdocs when it comes to confidence in the ability to succeed as a tenure-track investigator. In addition, the committee could examine whether this trend begins at earlier stages of career development (i.e. the undergraduate or even high school level) and determine ways to address this issue as needed.

## **8 – Recruitment Strategies**

Ensure that there is no gender discrepancy with regard to recruitment or retention in TTI or tenured positions

Set as a goal that 50% of our tenure-track scientists will be women

Ensure that search committees are actively searching for women, and minority candidates, using the processes described in the OIR letter provided to search committee members