

ORWH CAREER DEVELOPMENT PROGRAMS FY 2000

1. BUILDING INTERDISCIPLINARY RESEARCH CAREERS in WOMEN'S HEALTH

The Office of Research on Women's Health (ORWH) developed an institutional career development award for "Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Career Development Programs." These *Programs* support research career development of junior faculty members, known as Interdisciplinary Women's Health Research (IWHR) Scholars, who have recently completed clinical training or postdoctoral fellowships, and who are commencing basic, translational, clinical and/or health services research relevant to women's health.

The goal of this initiative is to promote the performance of research and transfer of findings that will benefit the health of women. The Programs will accomplish these goals by bridging advanced training with research independence, as well as bridging scientific disciplines or areas of interest. This will increase the number and skills of investigators at awardee institutions through a mentored research experience leading to an independent scientific career addressing women's health concerns. This RFA uses the NIH Mentored Research Scientist Development Program Award (K12) mechanism.

A need was identified for expanded support for interdisciplinary research bridging the completion of training with an independent career in research addressing women's health as described in the "*Agenda for Research on Women's Health for the 21st Century, A Report of the Task Force on the NIH Women's Health Research Agenda for the 21st Century*," Volume 2, pp. 187-198, Career Issues for Women Scientists, and pp. 223-228, Multidisciplinary Perspectives. ORWH has as one of its priorities "facilitating research initiatives that foster multidisciplinary collaborations." Program grant awards from this RFA met the specified need by providing clinical, health or life sciences, or public health departments, centers, and institutes, both developing and established, an opportunity to build national capacity for junior investigators in women's health research, here defined as including research on sex and/or gender differences, as well as research on factors that contribute to disparities in health status or health outcomes for different populations of women.

Investigators with established research programs covering a broad range of basic and applied biomedical and behavioral science or health services research, in the Principal Investigator's and collaborating departments, centers, or institutes, form an intellectual and technical research base for mentoring IWHR Scholars. Mentors from collaborating departments are encouraged to provide needed expertise and resources, as long as the emphasis of IWHR Scholars' projects is on research relevant to women's health. Projects are basic, translational, clinical, or health services research, but must be within the biomedical and behavioral purview of NIH and/or the health services research purview of AHRQ. Health services research includes the study of the quality, appropriateness, outcomes and effectiveness of health care services, as well as the cost, use and access to health care services.

PRESS RELEASE: NIH Announces New Research Career Program in Women's Health

In a major new effort to stimulate women's health research across a variety of disciplines, the National Institutes of Health (NIH) announced it will fund 11 awards to support development of new research in women's health. The program, Building Interdisciplinary Research Careers in Women's Health (BIRCWH), seeks to increase the number of researchers working on women's health issues and to mentor junior researchers in an interdisciplinary scientific setting by pairing them with senior investigators.

The Office of Research on Women's Health (ORWH) at the NIH leads the BIRCWH initiative, which will award a total of \$5.5 million to the 11 universities. In addition to ORWH, nine NIH Institutes* and the Agency for Healthcare Research and Quality (AHRQ) will co-sponsor this program. By uniting cosponsors from a breadth of scientific areas, the program will encourage researchers from different departments, disciplines, and backgrounds – basic, clinical, behavioral, and health services research – to apply their knowledge in new ways to important topics in women's health and sex and gender differences.

The power of the BIRCWH concept is the combination of support from ORWH and the cosponsors. In the past, important topics have remained understudied when they fell at the boundary of one or more Institute's defined mission. The new initiative will allow the participating cosponsors to support interdisciplinary efforts that may not fit neatly into their research domains. For example, the National Institute of Aging is typically concerned with the phase of women's lives that follows menopause. The National Institute of Child Health and Human Development (NICHD) tends to focus its research on the events prior to menopause. The new initiative, however, will support research spanning the phases before, during and after menopause and serve as a model for reducing fragmentation of women's health care. The individual funded programs will be able to address cross-cutting scientific questions without concern for where they "fit." Along with primary funding from ORWH, nine NIH institutes will support biomedical and behavioral research and the AHRQ will support health services research.

Junior faculty members without prior regular research grant support may apply to the sites as Interdisciplinary Women's Health Research (IWHR) Scholars. Those selected will have the opportunity to expand their research skills in a mentored research setting for a period of two to five years. The Scholars will learn not only research techniques, but also the skills to become independent investigators. The mentors at each site will be established investigators with a commitment to bring their expertise to interdisciplinary approaches in women's health research. For example, a project could bring together expertise in different body systems to address a question spanning traditional specialities, or apply biological, behavioral and public health methods to a common theme.

The BIRCWH initiative is supported through Mentored Research Scientist Development Program (K12) Awards, and was modeled after the highly successful Women's Reproductive Health Research (WRHR) Career Development Centers for obstetrician-gynecologists. The WRHR Centers are supported by the NICHD, the National Cancer Institute (NCI) and the ORWH. There are several key differences between WRHR and BIRCWH. The main difference

is its broader scientific scope, specifically targeting “in-between” areas not optimally reached by existing research programs. Other key distinctions are the eligibility of all types of clinicians as potential Scholars, larger size of each award (a minimum of four, rather than three Scholars per site), and the possibility of one or more non-clinician Scholar in each program. As in all NIH mentored career programs, Scholars must commit 75% effort to research and be US citizens, nationals, or legally admitted for permanent residence.

The new Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Career Development Programs are listed below.

Baylor College of Medicine – *Baylor BIRCWH Program*

University of Alabama at Birmingham – *UAB Women’s Health Research Scholars’ Program*

University of California, Los Angeles – *Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Center*

University of California at San Francisco – *UCSF – Kaiser Women’s Health Interdisciplinary Scholarship*

University of Connecticut Health Center – *UConn Center for Interdisciplinary Research in Women’s Health*

University of Kentucky Research Foundation – *Interdisciplinary Research Careers in Women’s Health*

University of Medicine and Dentistry of New Jersey – *Career Center in Interdisciplinary Women’s Health Research*

University of Michigan - *BIRCWH Career Development Programs*

University of North Carolina at Chapel Hill – *UNC BIRCWH Career Development Program*

Virginia Commonwealth University – *Building Research Careers in Women’s Health*

Washington University in St. Louis – *Building Interdisciplinary Research Careers in Women’s Health*

Yale University School of Medicine – *BIRCWH Career Development Programs*

* The nine NIH institutes supporting the BIRCWH program are:

National Institute on Aging

National Institute on Alcohol Abuse and Alcoholism

National Institute of Allergy and Infectious Diseases

National Institute of Arthritis and Musculoskeletal and Skin Diseases

National Cancer Institute

National Institute of Child Health and Human Development

National Institute on Drug Abuse

National Institute of Environmental Health Sciences

National Institute of Mental Health

Baylor College of Medicine

Houston, Texas

Positions - 4

Contact: Jennifer Hays, Ph.D.

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The Baylor program offers two tracks, molecular/clinical and clinical/health services/population research. Under this framework, 26 mentors from departments of Medicine, Obstetrics-Gynecology, Rehabilitation, Ethics, Molecular Medicine, and Health Services Research will collaborate to offer an intensive research experience, with a strong focus on molecular and human genetics and cell biology. Where appropriate, Scholars will work toward a Master's degree, e.g. in Public Health. Continuing guidance will be provided to Scholars after completing the program.

University of Alabama at Birmingham

Birmingham, Alabama

Positions - 5

Contact: John Hauth, M.D.

jhauth@uabmc.edu

A major emphasis of the program at Birmingham will be the health problems more common in minority and disadvantaged women. Mentors who work on health disparities were preferentially chosen for the program, and scholar candidates with an interest in disadvantaged populations will be particularly sought. Limited-experience and advanced tracks feature individualized curricula. Among a total of 24 mentors, seven from obstetrics-gynecology form a subgroup of reproductive health, with 17 others from a diverse group of 11 different departments.

University of California Los Angeles

Los Angeles, California

Positions - 4

Contact: Gautam Chaudhuri, M.D., Ph.D.

gchaudhu@obgyn.medsch.ucla.edu

UCLA proposes a highly interactive program involving 32 mentors, representing a mix of basic and clinical research. Areas of interest include developmental biology, molecular genetics, cell biology, behavioral sciences, cardiovascular sciences, cancer, clinical pharmacology, translational and clinical investigation, and health services research. The overall program comprises three phases, with entry depending on the experience level and needs of each Scholar.

University of California San Francisco

San Francisco, California

Positions - 4

Contact: PD: Deborah Grady M.D.

dgrady@itsa.ucsf.edu

UCSF and the Northern California Kaiser Division of Research here join forces to focus a program on chronic diseases of women. A core curriculum and tailored course work may be applied toward an advanced degree. Twelve senior mentors plus resource faculty offer a research experience in seven disease areas: cardiovascular, breast cancer, skeletal health, neuropsychiatric disorders, substance abuse, urinary incontinence, and HIV. There are also five cross-cutting research areas: sex hormones, women's imaging, complementary and alternative medicine, health services research, and aging.

University of Connecticut Health Center

Farmington, Connecticut

Positions - 5

Contact: Judith Fifield, MD

Fifield@nso1.uhc.edu

Twenty-one women's health investigators now scattered across three campuses of the University, including allied health professionals, join as mentors at this site. Areas of research are bone and skeletal biology, addictions and mental health, reproductive health and sexually transmitted diseases, and gender roles. Basic, clinical, and sociobehavioral approaches will be applied in all these areas. Curriculum and plans will be individualized within three tracks: Experienced investigator, Limited research experience, and Degree (MPH or Master's of Dental Sciences).

University of Kentucky

Lexington, Kentucky

Positions - 6

Contact: Pomeroy, M.D.

cpomer0@pop.uky.edu

The University of Kentucky presents a program organized around three major themes: regulation of the menopause and its repercussions for women's health, nutrition-related illnesses and their impact on women, and drug abuse and its relationship to gender (including AIDS/HIV). A didactic phase will be tailored to the background and interest of the Scholar. There are 18 mentors whose areas of research include cardiovascular, bone, infectious disease, alcoholic liver disease, brain and aging.

University of Medicine and Dentistry of New Jersey

Newark, New Jersey

Positions - 4

Contact: Laura T Goldsmith, Ph.D.

goldsmi@umdnj.edu

The UMDNJ-New Jersey Medical School site proposes a strong focus on minority and disadvantaged populations of women. Fourteen mentors offer a research experience on the areas of cardiovascular disease, diabetes, multiple sclerosis, infectious disease, aging, and reproduction and development. Career development includes a core curriculum plus individualized course work, and Scholars have the option of working toward a Ph.D. or MPH.

University of Michigan

Ann Arbor, Michigan

Positions - 4

Contact: Timothy R. B. Johnson, M.D.

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With a focus on gender differences across the lifespan, twenty mentors at the University of Michigan Medical Center offer research experiences in four target areas: pelvic floor/urology/gynecology (uniting obstetrics-gynecology, urology and nursing research); health

services research; reproductive science and women's medicine (including toxicology); and biobehavioral and aging research, especially depression. A Women's Academic Leadership Plan is available as part of a Scholar's individualized career plan.

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Positions - 5

Contact: Bruce Lessey, M.D., Ph.D.

Lessey@med.unc.edu

The University of North Carolina has organized its program around three central themes: biomarkers of therapeutics, prevention and intervention, and health issues of the mature woman.

Thirty-six mentors will cover a broad array of topics including cancer, pharmacology, cell biology, nutrition, sexually transmitted diseases, complications of pregnancy, substance abuse, contraception, environment and health, domestic violence, gastroenterology, cancer, cardiovascular disease, and the pelvic floor. Prevention and outcomes research are also featured.

Two tracks are available, depending on experience level, and Scholars may work toward an advanced degree.

Virginia Commonwealth University

Richmond, Virginia

Positions - 5

Contact: Mary Nettleman, M.D.

mnettle@hsc.vcu.edu

The VCU site centers on forming a focus of women's health research in five areas: substance abuse, psychiatric genetics, reproductive health, cancer, and diseases associated with aging.

Through these areas run themes of basic, clinical, behavioral, epidemiological, and health services research. Individualized course work will prepare Scholars for their research experience.

The faculty consists of 25 mentors, including a Core Mentor for each of the areas.

Washington University

St. Louis, Missouri

Positions - 5

Contact: Clay Semenkovich, MD

Semenkov@im.wustl.edu

Twenty-five mentors provide a newly integrated focus on women's health research across eight focus areas: autoimmune disease, cardiovascular disease, complications of pregnancy; diabetes, obesity and metabolism; osteoporosis, infectious disease, and cancer. Two tracks will serve scholars with substantial or limited prior research experience. Those with limited experience who are pursuing patient-oriented research will enter the MS in Clinical Investigation Program.

Yale University

New Haven, CT

Positions - 5

Contact: Bruce Rounsaville, M.D.

bruce.rounsaville@yale.edu

The Yale program will center on women's health and substance abuse, with twenty-five mentors from a broad array of basic, clinical and social science disciplines. Areas include the etiology of drug and alcohol abuse in women; the development of new sex-specific treatments; behavioral interventions for drug-abusing mothers and their children; sex differences in drug abuse consequences, course and co-morbidity, particularly stress and depression; and translation of research findings into practice. Clinical scholars will have an option of complementing their research with training in substance abuse treatment sites.

2. ACHIEVING EXCELLENCE IN SCIENCE (AXXs)

ORWH, in conjunction with The American Society for Cell Biology and the National Institute of Environmental Health Sciences, convened AXXS '99 to explore the roles of scientific societies in advancing science by building the careers of all women in science, from the pre-doctoral stage to the senior scientist level. The workshop was held December 9-10, 1999, as a satellite meeting to The American Society for Cell Biology's Annual Meeting in Washington, D.C. More than 140 participants representing more than 50 scientific societies, organizations, and government agencies gathered to

- A develop action items that societies could consider for their membership
- A contribute to an annotated bibliography of the career resources that could be made available as a national resource on the Internet
- A exchange information with other workshop participants on the strengths and weaknesses of existing and planned societal programs and resources for their women members.

AXXs Goals:

Goal 1: A new cultural norm for women:

...where gender bias is eliminated, women's leadership and communication styles are honored, the image and perception of women are highly valued, and science and family are compatible roles for women and men in this society.

Goal 2: Equity with male counterparts...

...where women are equally represented in their disciplines and societies compared to their male counterparts, and where women's society memberships, honorary awards, grants, faculty positions, leadership roles, pay rates, journal editorships, and so forth, are on a par with men

Goal 3: High visibility and recognition...

...where there is widespread professional respect for the accomplishments and contributions of women scientists, large numbers of well-known women deliver keynote addresses, and women routinely receive awards for their scientific achievements.

Goal 4: Mentoring as an integral part of career development and advancement for women...

...where mentoring is "gender-neutral" and encompasses both one-to-one and institutional programs, characterized by men seeking out women mentors, and the mentoring of women as an integral part of high schools, academia, professional societies, and scientific organizations and institutions.

Goal 5: Varied and valued career options for women...

...where expanded career possibilities for women in science are widely promoted and highly visible at all stages of the career pathway, more teen girls opt to take high school science, an “incubator” environment provides conditions favorable to the advancement of women in science, and greater numbers of mid- and upper-level women scientists remain on chosen career tracks.

Goal 6: Readily available networking, resources, and support...

...where women have access to, and are included in, non-gender-biased networks, which are both formal and informal, as well as faculty- and employer-sponsored.

Goal 7: Professional advancement and skill building through scientific societies...

...where there is significant support within societies to help women in science to advance their careers, in the form of mechanisms to promote an individual’s career, funding for skill building and development, affirmative public statements from scientific societies, and job access and advancement through societies.

Goal 8: Inner and outer empowerment...

...where women are comfortable with themselves and their careers, feel valued and effective, and hold empowered attitudes – free from any victim-like mentality (inner empowerment); and where there is collaboration and exchange from peers and role models, and MIT- type studies initiated .

AXXS '99 Initiatives

Leadership, Visibility and Recognition

- * Develop forums to highlight successes of women scientists
- C Formalize mechanisms for opportunities, awareness, and development for women in science
- C Increase the number of women in society leadership roles
- C Find and implement new strategies for leadership development programs within societies
- C Provide training and facilitate understanding regarding the “rules of the game” as they pertain to networking, promotion, tenure, etc

Mentoring and Networking

- * Establish a national mentoring system for women
- C Establish mentoring as a core activity of professional societies
- C Develop effective mentoring programs
- C Create a networking website for scientists

Best Practices

- * Design best practices for the advancement of women
- C Establish a best practices clearinghouse

Oversight, Tracking and Accountability

Create an umbrella organization of professional societies to facilitate networking and exchange of information and ideas

- C Develop a database of women scientists
- C Establish a report card on the status of women in science and engineering

The full report on AXXS '99 is available on-line at www4.od.nih.gov/axxs/.

As follow up to the Achieving XXcellence in Science (AXXS) meeting in December 1999, ORWH developed, designed, launched, and now maintains an AXXS Web page, which will serve as a primary resource for women in biomedical sciences. <http://www4.od.nih.gov>

OVERVIEW OF THE JUNE 2, 2000 MEETING

Sponsored by the Office of Research on Women's Health (NIH), in cooperation with The American Society for Cell Biology, AXXS 2000 was launched on June 2, 2000 at a meeting of a small, representative subset of AXXS '99 participants. Invitees came prepared to take the next critical step toward meeting AXXS '99 goals by building on the 14 recommended initiatives from AXXS '99. Thirty-one participants gathered at the National Institutes of Health to

A prioritize and refine initiatives developed at AXXS '99 for promoting women's scientific careers, and

A consider necessary actions for implementing these initiatives, both within and across scientific societies.

The group was intentionally small to allow participants to develop detailed initiatives, while also keeping in mind the big picture, i.e., eliminating redundant efforts, identifying what societies might do to take action on their recommendations, and defining possible mechanisms for continued AXXS support.

3. WHI MINORITY INVESTIGATOR CAREER DEVELOPMENT AWARD

ORWH co-sponsored an RFA with NIAMS and NIA to provide Career Development Awards (K01 or K08) to minority scientists to facilitate participation in the Women's Health Initiative. These serve two purposes: first, to enhance the research skills, training and development of the individual awardees, and second, to enhance the diversity of the investigator teams currently carrying out this project. Scientists and clinicians thus trained will contribute to the nurturing of the next generation of clinical investigations. ORWH supported 3 awards in FY 1997, four in FY 1998 and FY 1999. In FY 2000 supported the following:

Title: **Stress and Immune Functioning in Women With A Family History of Cancer**

Institute: **NIAMS**

Awardee: **Paige A. McDonald, PhD**

Institution: **Howard University Cancer Center, Washington, DC (Year 3)**

This study aims at the causes of morbidity and mortality associated with chronic diseases among women; strengthening the applicant's present training and ability to conduct psychoneuroimmunological research through course work, laboratory training, and clinical experience; familiarizing the applicant with all phases of research; and developing the applicant's ability to conduct independent research and obtain independent funding.

Title: **Ethnicity, Body Composition, Bone Density and Breast Cancer**

Institute: **NIAMS**

Awardee: **Zhao Chen, PhD**

Institution: **University of Arizona, Tucson, AZ (Year 4)**

This study aims to recruit Hispanic postmenopausal breast cancer cases; to form a Hispanic postmenopausal breast cancer case-control study comparing bone mineral density among Hispanic breast cancer patients recruited in the proposed study as cases and Hispanic women from the Women's Health Initiative observation study group in Arizona as controls; to examine the interrelationship between bone mineral density and breast cancer in Hispanic postmenopausal women; to assess the role of body composition in the relationship between bone mineral density and breast cancer in Hispanic postmenopausal women; to identify risk factors for and links between osteoporosis and breast cancer in Hispanic postmenopausal women; and to compare results of the proposed study with results from other ethnic groups in the WHI when they are available.

4. ORWH/NIH REENTRY PROGRAM

The ORWH Reentry Program was developed in 1992 as a pilot program to help fully trained scientists (women and men) reestablish careers in biomedical or behavioral science after taking time off to care for children or parents, or to attend to other family responsibilities. This program was originally started as a pilot program to encourage fully trained women and men to reenter an active research career after taking time off to attend to family needs. The success of this pilot program was the impetus to expand the program across the NIH and it is currently supported by all NIH ICs. The aim of these supplements is to encourage fully trained individuals to reenter research careers within the missions of all the program areas of NIH. This program will provide administrative supplements to existing NIH research grants for the purpose of supporting full-time or part-time research by these individuals in a program geared to bring their existing research skills and knowledge up to date. It is anticipated that at the completion of the supplement, the scientist will be in a position to apply for a career development (K) award or for a research award. ORWH currently provides funding of \$20,000 for each of 2 years. In FY 99, ORWH cosponsored 4 reentry award. In FY 00 cosponsored:

PI: Robert B.. Banzett, PH.D.
Institution: Harvard School of Public Health
Title: Vagal Afferents: Sensations Arising From The Lung
Grant Number: 5 R01 HL57916-02
Awardee: Elisabeth B. Salisbury Ph.D.

Dr. Salisbury received a Ph.D. in Biological Psychology (1993) from the State University of New York at Stony Brook. In postdoctoral studies (1993-1996) at the Harvard School of Public Health Dr. Salisbury investigated mechanisms responsible for the perception of respiratory sensation and the effects of respiratory stimuli on cognition. These studies culminated in a Spinal Cord Research Foundation grant in 1995 followed by a promotion to Research Associate in 1996. Dr. Salisbury's research career has been in hiatus since 1996 because she had to care for twin sons born prematurely and a daughter born in 1997. During this period she has worked only briefly (10 months) on a half time basis. Dr. Salisbury has kept current in the field during this time by completing three manuscripts and presenting a meeting abstract. She lists a total of four peer-reviewed publications as primary author and

three full length publications on which she is a coauthor.

Dr. Banzett's parent grant focuses on central mechanisms which underlie dyspnea. This sensation is closely associated with the breathlessness of heavy exercise congestive heart failure and lung collapse. In order to characterize the pulmonary signals associated with difficulty in breathing the sensations evoked by vagal nerve stimulation topical anesthesia of lung tissue and manipulations of blood gases and ventilatory volume are being studied in awake human subjects. The research aims at characterizing the respiratory sensations produced by electrical and mechanical stimulation of various vagal pulmonary afferents in humans. This study outlines new and innovative approaches to the study of the sensations arising from the lung and the role of the vagus nerve in human respiratory control.

Dr. Salisbury will examine the afferent pathways through which chest wall vibration relieves dyspnea. In healthy subjects she will characterize changes in breathing sensations associated with vibration of the chest wall compared to the vibration of non-respiratory muscle and the ameliorative

Grant: 1 R01 MH57897-01
Title: Eating Disorders in Young Women - Prevalence and Risk
PI: Ruth Striegel-Moore Ph.D.
Awardee: Sandra Affenito Ph.D. R.D. C.D.-N.
Institution: Wesleyan University

Dr. Affenito is currently an Assistant Professor at St. Joseph College West Hartford, CT who wants to pursue her research interests in the field of eating disorders and hopes to secure a tenure-track position in a setting that will enable her to pursue clinical research activities while teaching. After completing her doctoral work in nutritional sciences, she served as Interim Director of Dietetics and as an assistant Professor at the University of Connecticut School of Allied Health. In the fall of 1997 she chose to work part-time at St. Joseph College as an assistant professor in order to care for her infant son when her father was diagnosed with a terminal illness at that time and the part-time teaching work allowed her to help with her father's care and to be with her family. Her father passed away in January, 1999, and the applicant now wishes to pursue her interest in clinical research in eating disorders.

The aims of the supplement are to investigate the role of two parameters of childhood eating behavior as risk factor for the development of an eating disorder namely eating patterns and specific meal or food choices. There have been anecdotal accounts describing women with eating disorders as having engaged in unhealthy eating practices as children but there is no empirical evidence to support these accounts scientifically. The research examines how childhood eating practices relate to the development of disordered eating in adolescence and young adulthood and to the development of obesity. The results of this study will provide important data useful for nutrition education of parents and children in prevention efforts aimed at reducing risk for obesity and eating disorders. The study permits an in depth analysis of the role of nutrition in the development of disordered eating.

Grant: 2 R01 DA8781-5
Title: Validity of the ASAhi Criteria for Drug Abuse Treatment

P.I. David R. Gastfriend, M.D.
Institution: Massachusetts General Hospital
Awardee: Amy Rubin, Ph.D.

Currently Dr. Rubin serves as a part-time instructor at Boston University School of Public Health. From July-October 1998 she served as a part-time research associate to Dr. Gastfriend and as a consultant to Dr. Jeffrey Samet's NIDA and NIAAA grants. She earned her Ph.D. in Psychology in 1978. Dr. Rubin advanced from an postdoctoral fellowship to an appointment to Assistant Professor (Research) at Brown University's Center for Alcohol and Addiction Studies. Her research career was interrupted due to an incapacitating personal illness in October 1995. While facing the horrendous adversity of personal illness, Dr. Rubin maintained a 5% involvement as a Co-PI, and was allowed to keep her appointment as Assistant Professor until October 1 this year.

Dr. Rubin's supplement focuses on health services research in real world settings. This supplement provides a stable opportunity for Dr. Rubin to restart her career, gain an in-depth understanding of the issues involved in developing patient placement criteria, expand her knowledge of women's issues in substance use, and apply her knowledge to practical issues in a health services model. Dr. Rubin will investigate how physical and psychological differences and social contexts in women's response to drugs contribute to mismatches between patient and treatment using data from the ASAM, study. Findings from the ASAM study will then be cross-validated in a secondary analysis of the NIDA's Collaborative Cocaine Treatment Study and the Drug Abuse Treatment Outcome Study. Participation of Dr. Rubin in this project allows the parent grant an opportunity to focus specifically on women's outcomes, needs, and treatment matching opportunities, and allow Dr. Rubin to develop her independent research career. The study will add to the effectiveness of methods to allow substance abusers access to treatment, to make decisions, on appropriate placement for treatment, and to facilitate treatment completion and successful outcome is critical in this time of managed care and cost conscious health care delivery.

Grant: 5 R01 HL23671-19
Title: Renal Functional Derangements in Hypertension
P.I. Gabriel L. Navar, Ph.D.
Institution: Tulane University School of Medicine
Awardee: Shirley A. Williams-Scott, Ph.D.

Dr. Scott was awarded a minority supplement which is being converted to a reentry supplement to be cofunded by NHLBI and ORWH. She will work with the senior faculty and staff at Tulane University Medical School Physiology Department. The focus of this activity is to define and characterize the mechanisms responsible for the intrarenal hormonal, microcirculatory and transport derangements that occur in ANG II dependent hypertension and to develop an understanding of the experimental methods used to study renal uptake, and augmentation of intrarenal ANG II levels during ANG II induced hypertension. I propose to work with Dr. L. Gabdel Navar for the next four years to develop the skills and knowledge to become an independent investigator in renal physiology with a focus on the hypertensinogenic influence of ANG II. In keeping with the overall objective of the parent grant, the applicant will perform pertinent studies that will define and characterize mechanisms responsible for

microvascular and tubular reabsorption derangements that occur in ANG II dependent hypertension.

Grant: 1 R01 DA13016-01
Title: Impacts of Managed Care on Substance Abuse Services Linkages
P.I.: Joseph P. Morrissey, Ph.D.
Institution: U NC at Chapel Hill
Awardee: Kathleen Thomas, Ph.D.

"Impacts of Managed Care on Substance Abuse Services Linkages," is an interorganizational study that examines the effect of managed care on linkages between outpatient drug abuse treatment programs and both primary care and mental health services. This 29-month reentry supplement request will provide support for Dr. Kathleen Thomas who has had a break in her career for child rearing responsibilities.

Dr. Thomas will undertake a more in-depth assessment of the costs of interagency linkages than proposed in the original application. She will focus on understanding how service relationships are impacted by the introduction or intensification of managed care payment practices for providers serving persons with dual substance abuse and mental disorders. Her work will investigate how to cost out linkages between treatment units and other mental health/primary care agencies, determine the most cost-effective linkage to meet a specific goal, develop a strategy for measuring the effectiveness of the linkages, and consider ways to extend this system level study to the client level. Dr. Thomas plans to develop a research plan for such a study and submit it as a separate R01.

5. WOMEN'S REPRODUCTIVE HEALTH RESEARCH CAREER DEVELOPMENT CENTERS

ORWH joined NICHD in the development of a Request For Applications (RFA) to invite institutional career award applications for Women's Reproductive Health Research Career Development Centers in FYs 98 and 99. These Centers support research career development of obstetrician-gynecologists, known as Women's Reproductive Health Research (WRHR) scholars, who recently completed postgraduate clinical training, and were commencing basic, translational and/or clinical research relevant to women's health. The goal of this initiative is to promote the performance of research on women's reproductive health and transfer findings that will benefit the health of women. The Centers serve to bridge clinical training with independent research, increasing the number and skills of obstetrician-gynecologist investigators at awardee institutions through a mentored research experience leading to an independent scientific career addressing women's reproductive health issues.

In FY 98 12 Centers were funded: Magee-Women's Hospital Pittsburgh, Oregon Health Sciences University, Stanford University, University of California, San Francisco, University of California, Los Angeles, University of Cincinnati, University of Pennsylvania, University of Texas Health Sciences Center/Houston, University of Texas Medical Branch/Galveston, University of Washington, Wake Forest University School of Medicine, and Wayne State

University Detroit. In FY 99, 8 Centers were added: Brigham and Women's Hospital, Case Western Reserve University, Columbia University, University of Alabama at Birmingham, University of California, San Diego, University of Colorado, University of Rochester, and University of Utah. Funding in FY 2000 continues on the same funding levels.

6. PROFESSIONAL OPPORTUNITIES FOR WOMEN IN RESEARCH AND EDUCATION

ORWH has had an ongoing interagency collaboration since FY 1997 with the National Science Foundation (NSF) Professional Opportunities for Women in Research and Education (POWRE) Program to encourage the pursuit of research careers by women investigators in the biomedical sciences. POWRE is designed to help ameliorate the under-representation of women in the science and engineering workforce by "providing women with funding opportunities not ordinarily available through regular research and educational grants." Grants are in basic research and are awarded for 18 months. ORWH supported a total of 15 POWRE investigators in FY 1997-1998. In FY 99, 7, and, in FY 2000, ORWH supported 7 applications.

NSF Proposal # 0074634

The Cognitive and Neural Architectures of Word Meaning: A Combined Functional Imaging and Electrophysiology Approach

Dr. Tamara Swaab, Ph.D.

Dr. Swaab received her Ph D in 1996 and is now an Assistant Professor, tenure-track at Duke University. Her research program focuses on the cognitive and neural mechanisms that underlie language comprehension in brain damaged patients with or without aphasia. Dr. Swaab previously applied for an R03 from MH which was scored but not funded, so she is obviously a new investigator attempting to establish an independent research program in an area of NIH interest. This award should help her to become competitive for R01 funding. (\$74,300-12 months.)

NSF Proposal # 0074674

The Structural and Energetic Basis of Transcriptional Control in E. coli pap Operon

Dr Nancy Horton, Ph.D.

Dr. Horton received her Ph.D. in 1994 and is presently a Research Associate II at the University of California, Santa Barbara, where she is attempting to establish an independent research program. The pap operon encodes the proteins of the E. coli pili which target the bacterium to the uroepithelial cells lining the urinary tract. Dr. Horton will be using integrated biochemical and Xray crystallographic analysis to determine the energetic and structural basis for transcriptional activation of the pap operon. (\$75,000 - 18 months.)

NSF Proposal #0074985

Mathematical Models for Optimization of anti-Cancer Chemotherapy

Dr. Ardith Elkareh, Ph.D.

Dr. Elkareh completed her Ph.D. in 1989 and is presently at the University of Arizona. She

wishes to use modeling to understand the theoretical basis of drug transport from blood to tumor, which will include the cellular transport properties for individual drugs (melphalan, methotrexate, cisplatin and 5-fluorouracil). Spatial distribution models will compare cellular drug delivery (IP Vs IV and pharmacokinetics) to abdominal tumors (ovarian and colorectal). \$74,988 - 18 months

NSF Proposal #0074957

The Effects of Deletion of DBH on Osteocalcin

Dr. Patricia Buckendahl

Dr. Buckendahl is at Rutgers University and is attempting to develop preliminary data for a regular research grant proposal. She will be looking at the effects of catecholamine hormones on osteocalcin a protein synthesized in bone that plays a role in maintaining calcium homeostasis under normal and stress conditions. \$75,000 - 18 months

NSF Proposal #0075115

Solid State NMR Studies of Oligomerization: Zippering B-Strands from E.Coli

Thioredoxin

Dr. Maria Luisa Tasayco, Ph.D. 1989

Dr. Tasayco is at CUNY City College and holds an R29 award from NIH which will be ending. She is doing computational biochemistry/structural genomics establishing the principles underlying oligomerization of disordered polypeptide chains through the zippering of beta strands, using oxidized E. coli thioredoxin as a model system. Understanding the mechanism of formation of oligomers of polypeptide chains is relevant to amyloid and prion-like diseases. This award should help her to develop the data to make the transition for the R29 to an R01 award. \$75,000 - 12 months

NSF Proposal #0074819

Interactions Among Hox10 Paralogous Genes during Nervous System Development

Dr. Ellen Carpenter

Dr. Carpenter is on faculty at UCLA and presently holds an R03 grant from HD. This award will allow her to add a postdoctoral fellow and develop cDNA microarray analysis which will improve her chances for developing an R01 funded research program. The Hox gene family of transcriptional regulators are organized in four clusters and are expressed in overlapping domains in the lumbar spinal cord, where they regulate central and peripheral nervous system development. Dr. Carpenter will define the genetic cascade activated by Hox genes and develop a model for how genes function together to pattern specific regions of developing embryos. \$74,824 -18 months

NSF Proposal #0074662

Molecular Control of Interfaces in insitu Polymer-hydroxyapatite Composites for Bone Replacement

Dr. Kalpana Katti, Ph.D. 1996

Dr Katti is a new research assistant professor attempting to establish an independent research

program at North Dakota State University. She is trained in structure property relationships of material systems and wishes to investigate the control of mechanical properties of HAP-polymer composites for potential use as in bone replacement remaining \$50,888 towards the total cost of \$75,000 for 12 months.

7. SACKLER SCHOLARS NIH U.S.-ISRAEL STUDENT EXCHANGE PROGRAM

In conjunction with the NIH Office of Intramural Research, a Bi-national Student Exchange Program in Women's Health Studies will be initiated in FY 2001 with the Sackler Faculty of Medicine, Tel Aviv University (TAU), Tel Aviv, Israel, with preliminary arrangements such as scholar applications, review, and logistics to begin in FY 2000.

This program aims to expose excellent M.D.-PhD. or Ph.D. Israeli students in the biomedical field to the leading research programs at the NIH. The program encourages those interested in research related to women's health, whether basic, patient-oriented, or population-based. The program should facilitate and enhance biomedical research in Israel, establish scientific collaborations between Israel and the NIH, and train promising students for postdoctoral studies at the NIH.

The Sackler Faculty of Medicine represents the largest medical faculty in Israel with two medical schools (an Israeli program and an American-international school), a dental school, a school of health professions, a school of continuing medical education and a graduate school. To attain the best medical and scientific education for better service to the community, the best training opportunities are required and the NIH, as the largest biomedical research institute in the world, offers a unique location for this education. The new program offers an opportunity to present new horizons for research into women's health issues and should provide a pioneering model for other medical faculties and other countries.

A joint TAU-NIH will choose the best students to join the program each year, with a maximum of ten at any given time. These students will have an Israeli advisor and an American advisor. The student will perform 10 months/year research in the Israeli laboratory and up to two months/year in the NIH laboratory, for a total of four-five years of research. Once a year, the American supervisors will visit Israel for a joint scientific meeting of all enrolled in the program. The program will favor excellence, students enrolled in the M.D./Ph.D. program, women and minorities. The cost, \$25,000/year/student. Budget: \$250,000/year. Original commitment: Four years.

8. AWIS SEMINAR SERIES

ORWH is providing support is for the 2000-2001 Eighth Annual Association for Women in Science (AWIS) Bethesda Chapter Seminar Series entitled "Strategies for Success in Science." In FY 2000-2001, the seminars are: Exploring Informatics Careers: Paths in the Neurosciences and Molecular Biology, A Report on the Status of Women Faculty in Science at MIT: An Update, Employment Opportunities for Scientists at Federal Agencies, Science

and Business: Working in Industry, and Career and Family: Challenges and Rewards.

9. OFFICE OF SCIENCE EDUCATION/ORWH PROGRAMS

The partnership between the ORWH and the Office of Science Education (OSE) supports educational programs for pre-college age students and those interested in health with materials and resources that complement those found in schools and communities. These programs are developed with a focus on the important role education plays in providing young people, especially adolescent girls, with the tools necessary to deal successfully with the many risks to health that they will encounter throughout their lives.

Five programs continued to be funded in FY 00. These programs target populations ranging from middle school girls through adult women. The initial establishment and implementation of these programs allow the ORWH/OSE to test innovative program concepts.

10. Health Science Curriculum Online:

An interactive program for students in grades 7-12 centered on women, and minority health issues. The curriculum emphasizes understanding, depth of knowledge, and the interdisciplinary nature of science. Health topics center on diabetes, cardiovascular disease, and cancer with two stories on each disease; incorporated into the stories is information of special interest to Latino, Native American, and African American populations. The stories, a resource section, and information on career opportunities are available in both English and Spanish.

Health Science Curriculum Online (COL) An interactive program for students in grades 7-12 centered on women, and minority health issues. The curriculum emphasizes understanding, depth of knowledge, and the interdisciplinary nature of science. Health topics center on diabetes, cardiovascular disease, and cancer with two stories on each disease; incorporated into the stories is information of special interest to Latino, Native American, and African American populations. The stories, a resource section, and information on career opportunities are available in both English and Spanish.

Highlights: Curriculum Online opened to the public in the spring of 1999. In fiscal year 2000 approximately 400 teachers enrolled in the program, bringing the user total to approximately 700. Each new registrant receives a manual and welcoming letter. An electronic version of the manual can be downloaded by teachers, which reduces the time delay, labor, and cost involved in mailing a hard copy of the manual. The electronic version of the manual was updated in June 2000.

Considerable effort was expended this year to develop an online collaborative study component to the site in which students would apply biostatistical techniques to data that they would collect individually and could share within their school and with other schools. Personal nutrition was selected as the primary focus because of the strong causal relationship between nutrition and the three diseases that underlie the COL scenarios. And, because

exercise is also part of a healthy lifestyle strategy, we hope to add an exercise element to the study. The nutrition and exercise components would link to related sites, such as to basic biochemistry, structural formulas, molecular modeling, recipes, and menus. The nutrition component has been written and is being formatted for the COL Web site. The Department of Health and Human Services added COL to its Girl Power Web site and thought that the stories were so interesting and multi-cultural that they modified the Girl Power mission statement to include the program.

11. Women in Science Poster Series: A series of free posters, with a companion Web site, aimed primarily at middle-school girls. The series will emphasize that scientific and medical research offers many different career paths, all of which are open to women.

Highlights: The graphic design for the first three posters was developed and approved by the director of the ORWH. Each poster has a photo and short quote from three women in a specific field of research. Of the three women featured on each poster, one will be an M.D. or Ph.D. senior research scientist, one a professional in a research-related discipline, and one a professional whose job is crucial to research but does not require as many years of schooling as the other two. The racial and ethnic diversity of the women depicted will help make the posters relevant to a large number of girls, in particular those from populations currently under represented in scientific and medical careers.

The first poster, *Women in Neuroscience Research*, was created and produced, and is ready for printing. A print run of 5,000 copies is planned. Audrey Penn and Claudia Gerwin of the National Institute of Neurological Disorders and Stroke, and Dinora Domingues of the Clinical Center are featured. Profiles of each woman for the Web site were written by a freelance writer, edited into final form, and read for accuracy by the women featured. Women to be profiled on the next two posters, *Women in Diabetes Research* and *Women in Heart Disease Research*, have been identified. They are: Luz Maria Rodriguez-Fernandez (National Cancer Institute); Stervema Fields (National Cancer Institute); Lucie Chen (National Library of Medicine); Patrice Desvigne-Nickels (National Heart and Blood Institute); Patti Riggs (Clinical Center); and Joy Laurienzo (National Heart and Blood Institute). The profiles of these women for the Web site are currently being developed, and the photography for the next posters is in progress. All three posters will be released at the same time, along with the Web site.

12. Snapshots of Science and Medicine: An online magazine and interactive learning tool published twice each academic year for high school students but it also appeals to the general public. Each issue provides an in-depth look at a single area of cutting-edge research, covering its scientific basis, history, some people working in the field, and the legal, ethical, or social questions the research raises.

Highlights: A new design was created in fiscal 2000 for both the Web version and the downloadable, print-friendly version of the Snapshots. Technical issues for how best to post this design to the OSE Web server were solved, along with the design implementation in a

hybrid manner under both Net Objects Fusion Web Editing software and the Lotus Notes Domino Web-database system.

“Xenotransplantation,” the first issue of Snapshots using the new design, was posted to the Web in mid-December 1999. This involved creating, editing, and proofreading the content and posting it to the new site design. The content of the next issue of Snapshots, “DNA Chips,” has been created and is expected to be posted by the end of October 2000. Work has begun on the third issue which will focus on the use of genetically engineered fruits as low-cost vaccines. The creation of the various components of this issue is well under way.

XIII. ORWH/OSE Speakers Bureau: A program designed to increase national visibility of NIH research scientists and clinicians who are available to speak at schools and other organizations about NIH research. Speakers address a total of 29 topics, such as osteoporosis, depression, and breast and ovarian cancer, with 178 sub-topics. The speakers are diverse in their fields of expertise and their gender, race, and ethnic background.

Highlights: The focus of fiscal 2000 Speakers Bureau activities was to increase internal NIH staff knowledge about the resource and to increase the number of available speakers. The major strategy used to accomplish these objectives was to present an overview of the Speakers Bureau to various NIH groups and to recruit speakers from those groups. An ORWH brochure and an information package were designed and printed along with buttons and handouts to encourage volunteer participation. As a result of these activities, the program director received 84 requests were received over the Web site and 41 telephone requests. Audiences included pre-college students, professional groups, senior citizen groups, church groups, and health fairs

14. Women are Scientists Video and Poster Series: *Colorful, informative videos and posters for middle-school students that feature women scientists. The series is designed to stimulate the interest of girls in science at a time when they are making decisions about the course choices that may effect their career options later. In the middle-school years, many girls are discouraged from pursuing advanced levels of math and science. This series is intended to make them aware of the many interesting and rewarding careers in the medical sciences and the educational requirements necessary to pursue them.*

Highlights: The first video/poster set, *Women are Surgeons*, was formally released at the national meeting of thoracic surgeons in Fort Lauderdale, Florida, on January 31, 2000. Over 500 surgeons took the video for community outreach activities. The video received the Telly Award, a national competition honoring outstanding non-network television commercials and programs and non-broadcast videos and film productions, and the Aegis Award for the shooting, editing, and use of music in the Training/Education Category. The video/poster set was featured in an *NIH Record* article. Over 5,180 video/poster sets were

distributed in fiscal 2000, and orders continue to be received.

Howard Hughes Medical Institute (HHMI) Summer Program: A program that gives students who successfully completed an HHMI internship the opportunity to return to the NIH for a second summer. Through the program, returning students further develop or complete their research projects, thus gaining a greater understanding of the total research process. Students are able to present their research at a conference, submit an abstract for publication, and/or help other students.

Eleven (11) students -- 9 girls and 2 boys -- returned to laboratories for a second summer. Ninety (90) percent of the returning students will be coauthors on publications. Ten of the second-summer students demonstrated laboratory activities to representatives of Congress and their staffs on the Boston University Medical School Mobile Bus on June 21, 2000.

15. The Virtual Mentor Program: (A new program developed in FY 2000) A Web site to foster career success for students who are or who may be interested in the health science professions.

Highlights: A major effort in fiscal 2000 was to define the content of the Web site. The current plan is to have four sections:

Students (middle and high school, college). The primary objective will be to guide students in creating a list of career choices through self-assessments that will include educational requirements, salary, and personal interests.

Mentors (parents, counselors, scientists). The focus for this section will be on tips for being an effective mentor.

Database. This will include a career list with quick sketches of about 120 health-science-related careers as well as relevant professional organizations, scholarships and internships; a detailed career database; and a glossary of technical terms.

Role Models and Personal Stories. This section will include video and audio interviews with a variety of health-science professionals (with written questions and answers), video or slide shows of "a day in the life of" people in certain careers (five minutes long or less), and people talking about what they do and why they like their jobs.

An active developmental Web page with graphics was designed. Two NIH scientists were recruited for the five-minute videos. Initial interviews took place, a script was written, filmed and edited. The videos were presented to the NIH Science Education Resource Group in May, to a middle-school focus group in June, and to high-school and college students at the Frederick Research Center in July. Feedback from those presentations is being incorporated into the project design.

A tentative list of careers was developed along with an initial draft of the content of career descriptions. The OSE staff discovered the Department of Labor's O*Net, an Occupational Information Network. The O*Net database will be used for the Virtual Mentor job descriptions, which can then be updated as O*Net is updated. The OSE staff met with

Department of Labor staff and will be the first Federal agency they know of that is adapting the O*Net database for its own use.

XVI. ORWH/Office of Education Programs for NIH Trainees in FY-2000

The ORWH provides essential support to the Office of Education for the design and implementation of programs that foster the professional development of NIH trainees, in particular the postdoctoral fellows in both clinical and basic research programs across all institutes and centers. During FY 2000, ORWH supported programs were implemented to enhance the training experiences of participants in the NIH postbaccalaureate Intramural Research Training (IRTA) program, as well.

I. Career Development Series *Survival Skills*

Job Hunting - Part 2- December 13, 1999

This workshop covered when and how to move on; what employers look for; researching positions; writing effective cover letters, CV's, resumes, statements of interest, and letters of recommendation.

Teaching: A Brief Introduction - January 10, 2000

This workshop was geared towards postdoctoral fellows who have an interest in teaching courses for the FAES or at local universities. The workshop covered lecturing strategies, curriculum and syllabus development, ethical issues, and evaluation.

Negotiating - February 16, 2000

This workshop covered the skills that are necessary in successfully negotiating a job offer.

Oral Presentations - May 22, 2000

This workshop focused on how to deliver effective seminars, preparing ten-minute talks, and communicating with non-scientists. Also covered were segments on how to prepare an effective "job talk", how to prepare for an interview, and follow-up.

Writing Research Articles - September 11, 2000

This workshop focused on learning the 20 steps to a successful publication of a scientific paper. Fellows also learned how to prepare effective tables and figures, the anatomy of a research paper, and the IMRAD technique.

Management Skills - April 10, 2000

This workshop focused on learning to supervise employees and postdocs. In addition, fellows were provided tips on how to manage a laboratory.

Teaching: A Brief Introduction - August 30, 1999

This workshop was geared towards postdoctoral fellows who have an interest in teaching courses for the FAES or at local universities. It was developed in response to the need of postdocs to enhance their competitiveness for positions, particularly for those contemplating academic careers. The workshop covered lecturing strategies, curriculum and syllabus development, ethical issues, and evaluation.

Courses in Speaking and Writing about Science

The Speaking about Science and the Writing about Science courses were held three times during the year, in March, June, and September. The courses ran for five weeks, in two sessions. An evening session was scheduled again this year to accommodate fellows' work schedules in the laboratory.

Writing about Science

This course was offered over five weeks in March, June, and September. Taught in a workshop format in morning and evening sessions, this course instructs fellows how to write articles suitable for publication in peer-reviewed scientific journals. Participants learned how to write a research paper using their own laboratory data. During the course, they critiqued the work of others; learned about responsible authorship; reviewed the process of publication; and discussed dealing with editors and reviewers, and other issues related to scientific writing. Participants in the course are required to have at least one year of experience in an NIH laboratory and have compiled sufficient data for use in writing a scientific paper. Attendees: 88

Speaking about Science

This course was offered in morning and evening sessions for four weeks in March, June and September. Participants learned how to become an "A+" speaker, excel in job interviews, and to maximize the use of visual aids when making scientific presentations. Attendees: 85

II. Employment Opportunities Web Site

The web site established through the Office of Education has placed the following ads during FY2000:

- 357 postdoctoral ads
- 39 tenure-track ads
- 8 clinical investigator ads
- 54 ads for positions external to NIH (Careers for Postdocs)

Valuable links were added to the site: One link is to NextWave, the web site for Science Magazine, which features an online career development center, and addresses career and training issues important to young scientists—graduate students, postdocs, and junior faculty. Another link is to SACNAS, the Society for the Advancement of Chicanos and Native Americans in Science, with the objective of enhancing the diversity of the pool of applicants to

NIH training programs.

III. Job Fair for Postdoctoral Fellows

The 2000 Job Fair for Postdoctoral fellows was held on October 10, 2000. A total of 43 exhibitors from academe, biotechnology firms, and government were in attendance. An estimated 800 fellows were in attendance.

IV. Fellows Award for Research Excellence (FARE) 2000

The FARE competition is a program that allows postdoctoral and clinical fellows at the NIH to compete for a \$1000 travel award to be used to attend a domestic scientific meeting. The ORWH contributed \$250 to each award. This year, for the first time, an awards ceremony was held to recognize the winners and to acknowledge the quality of their research. 664 applicants and 159 awards.

V. Programs for Postbaccalaureate Trainees

Poster Day 2000

On March 22, the first annual Poster Day for postbaccalaureate trainees was held in the Clinical Center. This program provided a forum for individuals who are spending one or two years engaged in research at the NIH to present their work to the scientific community.

Premed Advising Workshop

Held on May 9, this workshop was conducted by Drs. Lee Ann Michelson and Georgiana Aboko-Cole, premedical advisors from Harvard and Howard Universities, respectively, who covered a range of issues including: MCATs, application process, interviewing, and selection of schools. In addition to an informative question-and answer session, the participants had an opportunity to engage in individual Q and A sessions with the presenters.

NIH Academy Curriculum

In September, the NIH Academy welcomed its charter class of 10 postbaccalaureate trainees. In addition to their individual research projects in NIH laboratories, Academy trainees examine a variety of issues related to domestic health disparities, including diseases and other conditions that disproportionately affect women. This is achieved through a special curriculum that includes a series of lectures and seminars conducted by individuals from inside and outside of the NIH. Support from the ORWH has enabled the Academy to provide travel and honoraria for outside speakers. The inaugural seminar was conducted by Dr. Evelyn Lewis, Director, University Health Center, Uniform Services University of the Health Sciences (USUHS), who discussed M.D. and M.D./Ph.D. programs.

Videotape Flyer

Over the years, with support from the ORWH, the OE has amassed a sizable collection of videotapes on career issues as well as scientific lectures that have been made available for circulation in the NIH Library. To publicize the availability of these tapes, a flyer was developed for distribution throughout the NIH campus.

Mentoring Series

The OE is planning a series of small group workshops designed to provide fellows with skills that can be used to ensure that a meaningful mentoring relationship occurs. On September 27th, the initial mentoring workshop was conducted by Dr. J. Tyson Tildon, former Associate Director for Research and Graduate Studies at the University of Maryland School of Medicine and his colleague, Nancy Anne Baugher, CPA and Director of Finance at that institution.

Job Fair 2000

On October 10, in concert with the NIH Research Festival, the OE sponsored the fourth annual Job Fair for postdoctoral fellows, which provides a forum for trainees to meet prospective employers. This year's program attracted nearly 50 representatives from biotechnology firms, the academic community and government and an estimated 800 fellows. In addition, for the first time in the history of the job fair, the OE sponsored a program designed to examine issues that impact employment opportunities. The Job Fair began with a Keynote Address by Dr. William Schrader, Vice President for Scientific and Technical Affairs, Ligand Pharmaceuticals in San Diego and former Assistant Dean of the Graduate School at Baylor. Dr. Schrader's talk focused on *"Career Decision Strategies in the Era of Biotech: How to Decide What Pathway is Right for You."*