# Welcome and Goals for the Workshop

8:00 a.m. – 8:15 a.m.

#### Barbara M. Alving, M.D.

Director National Center for Research Resources National Institutes of Health

Dr. Barbara M. Alving is the Director of the National Center for Research Resources (NCRR) at the National Institutes of Health. NCRR provides laboratory scientists and clinical researchers with the environments and tools they need to understand, detect, treat, and prevent a wide range of common and rare diseases.

Dr. Alving earned her medical degree *cum laude* from Georgetown University School of Medicine, where she also completed an internship in internal medicine. She received her residency training in internal medicine at the Johns Hopkins University Hospital, followed by a fellowship in hematology. Dr. Alving then became a research investigator in the Division of Blood and Blood Products at the Food and Drug Administration. In 1980, she joined the Department of Hematology at the Walter Reed Army Institute of Research and became Chief of the Department in 1992. She left the Army at the rank of Colonel in 1996 to become the Director of the Medical Oncology/Hematology section at Washington Hospital Center in Washington, D.C. In 1999, she joined the National Heart, Lung, and Blood Institute (NHLBI), serving as the Director of the extramural Division of Blood Diseases and Resources until becoming the Deputy Director of the Institute in September 2001. From September 2003 until February 1, 2005, she served as the Acting Director of NHLBI. In March 2005 she became the Acting Director of NCRR and was named Director in April 2007.

Dr. Alving is a Professor of Medicine at the Uniformed Services University of the Health Sciences in Bethesda, a Master in the American College of Physicians, a former member of the subcommittee on Hematology of the American Board of Internal Medicine, and a previous member of the FDA Blood Products Advisory Committee. She is a co-inventor on two patents, has edited three books, and has published more than 100 papers in the areas of thrombosis and hemostasis.

# Keynote Address 8:15 a.m. – 9:15 a.m.

#### Vivian W. Pinn, M.D.

Associate Director for Research on Women's Health Director, Office of Research on Women's Health National Institutes of Health

Vivian W. Pinn, M.D., is the first full-time Director of ORWH, an appointment she has held since November 1991 and since 1994, she was also named Associate Director for Research on Women's Health, NIH. Dr. Pinn came to NIH from Howard University College of Medicine in Washington, DC, where she had been Professor and Chair of the Department of Pathology since 1982. Dr. Pinn has been invited to present the ORWH's mandate, programs, and initiatives to many national and international organizations with an interest in improving women's health and the health of minorities. Her recent focus has been to raise the perception of the scientific community about the importance of sex and gender factors in basic science, clinical research, and health care. She is also currently Co-chair, along with the Director of NIH, of the NIH Working Group on Women in Biomedical Careers.

Dr. Pinn earned her B.A. from Wellesley College and received her M.D. from the University of Virginia (UVA) School of Medicine. She completed her postgraduate training in pathology at Massachusetts General Hospital, during which time she also served as Teaching Fellow at Harvard Medical School. Dr. Pinn then joined the faculty of Tufts University School of Medicine and Tufts-New England Medical Center Hospital until leaving for her position at Howard University. She is a member of many professional and scientific organizations, in which she held many positions of leadership.

Dr. Pinn has received numerous honors and awards, and has been granted nine honorary degrees since 1992. She is a fellow of the American Academy of Arts and Sciences and was elected to the Institute of Medicine in 1995. She received an Alumni Achievement Award from Wellesley College in 1993 and the second annual Distinguished Alumna Award from UVA in September 1992. She has been recognized for her contributions to women's health and medicine by many professional organizations including the President's Achievement Award from AMWA, the James D. Bruce Memorial Award from the American College of Physicians for distinguished contributions in preventive medicine; the 2000 Women in Medicine Leadership Development Award from the AAMC; the Commonwealth Fund's Margaret E. Mahoney Award for Outstanding Service for work in advancing the quality of health care for women; and the Lifetime Achievement Award from the Jacobs Institute of Women's Health. In 2007, Dr. Pinn received the University of Virginia Walter Reed Distinguished Alumni Achievement Award. She is also currently Co-chair, along with the Director of NIH, of the NIH Working Group on Women in Biomedical Careers.

#### Nancy Andrews, M.D., Ph.D.

Vice Chancellor for Academic Affairs and Dean Duke University School of Medicine

Nancy Andrews, M.D., Ph.D., was appointed vice chancellor for academic affairs and dean of the Duke University School of Medicine effective October 1, 2007. She is also a professor in the departments of Pediatrics and Pharmacology & Cancer Biology.

Andrews received her BS and MS degrees in molecular biophysics and biochemistry from Yale University, her Ph.D. in biology from MIT, and her medical degree from Harvard Medical School. She completed her internship and residency in pediatrics at Children's Hospital Boston, and her hematology/oncology fellowship at Children's Hospital and the Dana-Farber Cancer Institute.

After she completed her training, Andrews stayed on at Harvard and Children's Hospital, rising through the academic ranks to become the George Richards Minot Professor of Pediatrics at Harvard, senior associate in medicine at the Children's Hospital Boston, and a distinguished physician of the Dana-Farber Cancer Institute.

She served as an attending physician in hematology and oncology at Children's Hospital until 2003. She was director of the Harvard-MIT M.D.- Ph.D. program from 1999 to 2003 and dean for basic sciences and graduate studies at Harvard Medical School from 2003 to 2007.

Andrews has maintained an active NIH-funded research laboratory studying mouse models of human diseases. She was an investigator of the Howard Hughes Medical Institute from 1993 to 2006. She has authored well over 100 peer-reviewed articles and 16 book chapters, and has received many awards and honors for her research, including membership in the Institute of Medicine of the National Academies and in the American Academy of Arts and Sciences. She is president-elect of the American Society of Clinical Investigation.

# **Opening Session:** Framing the Issues

9:15 a.m. – 10:00 a.m.

#### Timothy Ley, M.D.

Professor Washington University in St. Louis

Timothy Ley, M.D., received his degree from Washington University in St. Louis Medical School in 1978 and performed his internal medicine residency at Massachusetts General Hospital. He completed fellowships in Hematology and Oncology at the NIH and at Washington University and joined the faculty at Washington University in St. Louis in 1986. He is now the Alan and Edith Wolff Professor of Medicine and Professor of Genetics at Washington University, and serves as the Associate Director for Basic Research at the Siteman Cancer Center.

Dr. Ley is a past president of the American Society for Clinical Investigation, a member of the AAP Council, a fellow of AAAS, and a member of the Institute of Medicine. He has developed approaches to reactivate fetal hemoglobin synthesis for patients with hemoglobinopathies, defined the role of the perforin/granzyme system for the function of cytotoxic and regulatory T cells, and has performed pioneering genomic studies of acute myeloid leukemias. He has written extensively about the physician-scientist career path and was a key advocate for establishing the extramural Loan Repayment Programs at the NIH. He has mentored more than 30 pre- and postdoctoral fellows in his laboratory; nearly all hold research positions in academic medicine and pharmaceutical companies.

#### Phoebe Leboy, Ph.D.

President, Association of Women in Science, and Professor of Biochemistry University of Pennsylvania School of Dental Medicine

Dr. Phoebe Leboy received her B.S. from Swarthmore College, her Ph.D. from Bryn Mawr College, and did post-docs at the University of Pennsylvania and the Weizmann Institute of Science in Israel. She joined the faculty of the University of Pennsylvania in 1966 and retired from the faculty in 2005. While at Penn, she was a faculty member in the Cell and Molecular Biology and Bioengineering Graduate Groups, served as Chair of the University Faculty Senate, Chair of the Graduate Group in Molecular Biology, and chair of her department. Dr. Leboy has been a member of several NIH grant review panels and recently completed a term as chair of the NIH SBDD Study Section. She has served as a liaison from Penn to the MIT/9 University consortium on gender equity in science and co-chaired Penn's 1999-2001 Task Force on Gender Equity. She has been the recipient of a NATO Postdoctoral Fellowship, an NIH Research Career Development Award, a Fogarty Senior International Fellowship, and a Lindback Award for Distinguished Teaching.

## Panel Session – Models for Advancement in Industry

10:30 a.m. – 11:30 a.m.

#### Joan M. Lakoski, Ph.D.

Associate Vice Chancellor for Academic Career Development Executive Director of the Office of Academic Career Development University of Pittsburgh Schools of the Health Sciences

Joan M. Lakoski, Ph.D., is the Associate Vice Chancellor for Academic Career Development and the Founding and Executive Director of the Office of Academic Career Development at the University of Pittsburgh Schools of the Health Sciences. She is also the Associate Dean for Postdoctoral Education and Professor of Pharmacology at the University of Pittsburgh School of Medicine. Dr. Lakoski received her Ph.D. in pharmacology from the University of Iowa, completed postdoctoral training in the Department of Psychiatry at the Yale University School of Medicine, and has held faculty positions at the University of Texas Medical Branch in Galveston and the Pennsylvania State University College of Medicine, including an appointment as Interim Chair of the Department of Pharmacology at Penn State. She maintains a research program investigating the neuropharmacolgy of aging and studies the impact of research mentoring, is a member of the graduate faculty at the University of Pittsburgh, and serves on NIH study section review panels.

She has been the recipient of an NIH Research Career Development Award, an Independent Investigator Award from the National Alliance of Research on Schizophrenia, an Administrative Fellowship at the Pennsylvania State University, and was a Fellow of the Committee on Institutional Cooperation Academic Leadership Program. Her administrative responsibilities encompass oversight and development of comprehensive career development services, including mentoring programs for professional students, postdoctoral fellows, residents, clinical fellows, and faculty to "empower the health science professional" at the University of Pittsburgh.

Dr. Lakoski currently serves as Co-Director of the Multidisciplinary Clinical Research Career Scholars Program at the University of Pittsburgh, is Director of Mentoring for both NIH-funded KL2 and K30 Clinical Research Training awards, and is Director of Faculty Development for the Institutional Clinical and Translation Science Award at the University of Pittsburgh. She serves as Chair of the Advisory Panel on Ethics and Conflict of Interest of the Endocrine Society, Chair of the International Union of Basic and Clinical Pharmacology Committee on Teaching, a 2007–2008 ELAM Program Faculty Advisor, an AAMC Women's Liaison Officer for the University of Pittsburgh School of Medicine, Co-Chair of the AAMC GREAT Group Postdoctorate Committee, Co-Chair of the 2008 KL2 and K30 National Clinical Scholars Annual Meeting Program Committee, and Co-Chair of the 2008 National Postdoctoral Association Postdoctoral Offices Preconference Workshop. For her numerous activities in support of postdocs, Dr. Lakoski was the recipient of the 2007 University of Pittsburgh Postdoctoral Association Postdoctoral Advocate Award.

#### Asif Dhar, M.D, M.B.A.

Federal Biomedical Informatics Practice Leader, Deloitte Consulting Senior Fellow, Deloitte Center for Health Solutions

Dr. Dhar leads Deloitte's Federal Biomedical Informatics Practice. His teams develop innovative strategies to improve clinical outcomes and therapeutic discovery. Dr. Dhar is also a Senior Fellow with the Deloitte Center for Health Solutions. His translational informatics work is helping discover new approaches to optimize clinical R&D with breakthrough informatics tools. Dr. Dhar is also doing research to delineate the barriers and benefits for adopting personalized medicine.

Dr. Dhar has deep functional and management experience that spans public and private sector clients. He has provided senior leadership for numerous Electronic Health Record (EHR) implementations in the US, Canada, and the UK. Dr. Dhar has also helped design enterprise data warehousing solutions, clinical discovery applications, and quality improvement programs at large integrated delivery networks and academic medical institutions.

Dr. Dhar has a deep interest in advancing public sector clinical and research programs. He has provided biomedical informatics advisory services for the National Institutes of Health (NIH) National Cancer Institute (NCI) and testing advisory services for the Department of Defense (DoD). Dr. Dhar has served on study sections for the NIH National Human Genome Research Institute.

Prior to joining Deloitte Consulting, Dr. Dhar served as a management consultant with Booz Allen Hamilton and as a physician executive with the Cerner Corporation. He holds a Medical Degree from the University of Illinois, a Masters in Business Administration degree from the University of Chicago Graduate School of Business, and a Bachelor in Arts degree from the University of Chicago.

Deloitte has a deep commitment to advancing diversity and women in the workplace. After launching the Women's Initiative (WIN), Deloitte has been recognized with nine national awards. WIN was also featured in more than 100 major news stories. In 2007, Deloitte was rated by Business Week as the "Best Place to Start a Career."

#### Jo Ellen Helmer, B.B.A.

Audit and Risk Advisory Partner

Jo Ellen has more than 19 years experience, in Chicago, serving major health science clients (pharmacuetical/medical device companies and large academic medical centers), in both an external audit and business/risk advisory capacity. Organizations she has served include, Baxter International, Zimmer Holdings, Inc., Promega Corporation, Optobionics, Mayo Clinic, UPMC -University of Pittsburgh Medical Center, National Surgical Hospitals and Northwestern Memorial Hospital. Jo Ellen has deep experience with technical and financial reporting issues. She has experience with Section 404 of the Sarbanes Oxley Act, debt offerings, acquisitions and divestitures. She also serves as a liaison to the Global Pharma/Med Tech Centers of Excellence for risk advisory services. In this capacity she brings thought leadership and insights to local teams. Additionally, she has coordinated advisory engagements such as controls optimization related to Section 404 and AS5 (Auditing Standard #5), transaction advisory, compliance advisory (including FCPA), and valuations. Jo Ellen has taken an active role with regard to advancing gender equity within the workplace. She has served on the firm's National Gender Equity Steering Committee and currently services on the Midwest Area Gender Equity Steering Committee. She is also a member of the American Institute of Certified Public Accountants, iBIO (Illinois Biotechnology Industry Organization), Health Care Financial Management Association, and the Illinois, Indiana, Wisconsin, Pennsylvania and Minnesota CPA Societies.

### Military Medical Scientists: An Air Force Perspective

11:30 a.m. – 12:00 p.m.

#### Colonel Debra M. Neimeyer, Ph.D.

Deputy Assistant Surgeon General Office of the Surgeon General

Colonel (Dr.) Debra Marie Niemeyer is the Deputy Assistant Surgeon General, Modernization Directorate, and Consultant to the Surgeon General for Biomedical Research, Office of the Surgeon General, Falls Church, Virginia. She oversees the operations of 600 personnel at eleven different locations, to include three test beds and one technology center, and manages career planning for 2,000 medical scientists. Col Niemeyer provides direction and makes investment decisions for nearly 100 acquisition programs and research projects valued at 220 million dollars, 50 million dollars in Congressional programs, and 10 billion dollars in contract vehicles to transform medical capabilities. She oversees compliance for 2,300 subjects enrolled in protocols supporting 400 researchers and enterprise-wide Graduate Medical Education. Col Niemeyer supervises building of the Air Force Medical Service 6.4 billion dollar budget to provide healthcare to 550,000 military members, 2.9 million Air Force and 9.2 million Tri-Service beneficiaries, and represents the Surgeon General at Department of Defense, Congressional and civilian forums for policy development. As Consultant for Biomedical Research and Director, Medical Innovations Office, she leads the Air Force Medical Service in commercial and federal biotechnology partnerships to develop, evaluate and field leading-edge technologies to improve military force protection measures and the nation's defense. She provides expert consultation to numerous agencies and committees.

Col Niemeyer enrolled in the Air Force Reserve Officer Training Program and in 1979 received an academic scholarship. She graduated from Marywood University with a baccalaureate degree in Biology and the University of Minnesota with a master's degree in Medical Microbiology. In 1981, she was commissioned a second lieutenant. Following completion of training at Sheppard Air Force Base, she directed laboratories around the world, in addition to serving in special duty and education assignments. She completed a doctorate of philosophy in Microbiology and Immunology at the Medical College of Virginia, Virginia Commonwealth University.

Col Niemeyer established the first Air Force biological agent testing capability in Southwest Asia and the Pacific Rim. Following the terrorist attack on the Pentagon, she set up an alternate command section and directed emergency airlift operations for delivery of blood products. Additionally, she assembled and led a microbiology response team to assist the Centers for Disease Control & Prevention and the New York City Department of Health following the release of anthrax spores into the U.S. Postal System. She formed rapid bio-agent testing teams in support of the U.S. Secret Service at Presidential events and augment Winter Olympics security. She established the Applied Technology Center to conduct "controlled environment" assessments of off-the-shelf and nascent technologies and the Directorate's Medical Innovations Office to address "disruptive technology" impacts on the Air Force "fly and fight" mission. She has substantial experience in clinical laboratory medicine, blood program operations and transfusion medicine, expeditionary operations, force protection and counter-proliferation, technology test and evaluation, medical planning, program management, and product acquisition. Col Niemeyer holds appointments at various academic institutions.

# The NIH: Promoting Sustained Career Success for Women

1:00 p.m. – 1:20 p.m.

#### Elias A. Zerhouni, M.D.

Director National Institutes of Health

NIH Director, Elias A. Zerhouni, M.D., leads the nation's medical research agency and oversees the NIH's 27 Institutes and Centers with more than 18,000 employees and a fiscal year 2007 budget of \$29.2 billion.

The NIH investigates the causes, treatments, and preventive strategies for both common and rare diseases, helping to lead the way toward important medical discoveries that improve people's health and save lives. More than 83% of the NIH's funding is awarded through almost 50,000 competitive grants and awards to more than 325,000 scientists and research support staff at more than 3,000 universities, medical schools, and other research institutions in every state and around the world. About 10% of the NIH's budget supports projects conducted by nearly 6,000 scientists in its own laboratories, most of which are on the NIH campus in Bethesda, Maryland.

Dr. Zerhouni, a world renowned leader in the field of radiology and medicine, has spent his career providing clinical, scientific, and administrative leadership. He is credited with developing imaging methods used for diagnosing cancer and cardiovascular disease. As one of the world's premier experts in magnetic resonance imaging (MRI), he has extended the role of MRI from taking snapshots of gross anatomy to visualizing how the body works at the molecular level. He pioneered magnetic tagging, a non-invasive method of using MRI to track the motions of a heart in three dimensions. He is also renowned for refining an imaging technique called computed tomographic (CT) densitometry that helps discriminate between non-cancerous and cancerous nodules in the lung.

Since being named by President George W. Bush to serve as the 15th Director of the National Institutes of Health in May 2002, Dr. Zerhouni has overseen a number of milestones:

- Reauthorization demonstrated renewed confidence in NIH,
- Development of a new office to improve trans-NIH initiatives,
- Initiated the NIH Roadmap for Medical Research,
- Established an NIH-wide research initiative to address the obesity epidemic,
- Supported the NIH Neuroscience Blueprint,
- Supported the reduction of health disparities and barriers to opportunity for minority individuals,
- Ensured public access to NIH-funded research results,
- Committed to earn the public's trust, and Enhanced the leadership of NIH.

Prior to joining the NIH, Dr. Zerhouni served as executive vice-dean of Johns Hopkins University School of Medicine, chair of the Russell H. Morgan department of radiology and radiological science, and Martin Donner professor of radiology, and professor of biomedical engineering. Before that, he was vice dean for research at Johns Hopkins.

Dr. Zerhouni was born in Nedroma, Algeria and came to the United States at age 24, having earned his medical degree at the University of Algiers School of Medicine in 1975. After completing his residency in diagnostic radiology at the Johns Hopkins University School of Medicine as chief resident (1978), he remained at Hopkins, serving as instructor (1978–1979) and then as assistant professor (1979–1981). Between 1981 and 1985 he was in the department of radiology at Eastern Virginia Medical School and its affiliated DePaul Hospital. He returned to Johns Hopkins as an associate professor in 1985. In 1988, Dr. Zerhouni was appointed director of the MRI division. He was promoted to full professor of radiology in 1992 and of biomedical engineering in 1995. In 1996, he was named chairman of the radiology department.

Since 2000, he has been a member of the Institute of Medicine. He served on the National Cancer Institute's Board of Scientific Advisors from 1998–2002. He was a consultant to both the World Health Organization (1988), and to the White House under President Ronald Reagan (1985).

A resident of Baltimore, he has won several awards for his research including a Gold Medal from the American Roentgen Ray Society for CT research and two Paul Lauterbur Awards for MRI research. His research in imaging led to advances in Computerized Axial Tomography (CAT scanning) and Magnetic Resonance Imaging (MRI). He is the author of 212 publications in peer-reviewed journals and holds 8 patents.

## Panel Session: Developing Women Leaders

1:20 p.m. – 2:20 p.m.

#### Diane M. Magrane, M.D.

Vice President for Faculty Development and Leadership Programs Association of American Medical Colleges

Diane M. Magrane holds the position of Associate Vice President for Faculty Development and Leadership Programs at the Association of American Medical Colleges. She is responsible for a variety of faculty development programs, including Women in Medicine, the Executive Development Seminars for Chairs and Associate Deans, and TeamWorks. In addition, she supports the Group on Faculty Affairs and is senior editor of Faculty Vitae, an on-line professional development publication for medical faculty Prior joining the AAMC in 2004, she was Associate Dean for Medical Education and Professor in Obstetrics and Gynecology at the University of Vermont College of Medicine. She received her M.D. degree from the University of Iowa in 1978 and completed residency training in Ob/Gyn at St. Louis University Hospitals in St. Louis, Missouri in 1982. She has been actively involved in improving instruction, evaluation, and faculty development in medical education at UVM and in national educational organizations.

Her educational scholarship lies in interdisciplinary activities in women's health education, and in applying systems of educational psychology, complexity theories, and classic curriculum design to enhancing the environment and educational processes of academic medicine. She is a founding member of the Alliance for Clinical education, past chair of the APGO undergraduate medical education committee and of the examination committee of the Council for Resident Education in Obstetrics and gynecology, and past president of the Association for Professors in Gynecology and Obstetrics. In recognition of her national leadership in medical education, she was honored as a distinguished alumnus of the University of Iowa College of Medicine in 2002 and with an APGO-Wyeth Career Achievement Award in 2006.

She has benefited from leadership training in a variety of venues, including the AAMC Women in Medicine Programs, Harvard-Macy Programs for educational leaders, and Executive Leaders in Academic Medicine (ELAM '03). Her position at the AAMC brings her full circle to support professional development and leadership skills training for all medical school faculty in North America.

#### Jennifer Sheridan, Ph.D.

Executive and Research Director Women in Science and Engineering Leadership Institute (WISELI)

Jennifer Sheridan is the executive and research director of the Women in Science & Engineering Leadership Institute (WISELI) at the University of Wisconsin-Madison. She was co-PI of the UW-Madison's NSF ADVANCE grant, and is PI of an NSF PAID grant. Dr. Sheridan received her Ph.D. from the Department of Sociology at UW-Madison in August 2001, specializing in social stratification and quantitative research methods. Her graduate work focused on the social origins and implications of occupational sex segregation. She has authored or co-authored fourteen peer-reviewed papers, covering topics such as measurement of occupational standing, long-term effects of childhood abuse, and her current line of inquiry, the status of women in science and engineering. As WISELI's executive and research director, Dr. Sheridan develops and oversees the workshops and grant programs administered by WISELI, as well as the research and evaluation produced by WISELI, including two all-faculty climate surveys administered in 2003 and 2006.

#### W. Sue Shafer, Ph.D.

Consultant Women's Careers in Science

W. Sue Shafer, Ph.D., is a consultant to individuals about their careers as well as to institutions concerning women's careers in science and medicine. She has over 30 years of experience leading and managing broad-based scientific research programs in both Government and academia. She is adept at developing consensus about future research directions; and skilled at developing resources, overseeing expenditures, and educating others in the responsible conduct of research. Her particular interests are in scientific careers for women and minorities, developmental biology, biomedical ethics, and biomedical research policy. She's a seasoned team builder and mentor for both scientists and nonscientists.

Trained as a developmental biologist, Dr. Shafer received her undergraduate degree from the University of Wisconsin, and her Ph.D. from the University of Florida, Gainesville. She held positions of increasing responsibility at the National Institutes of Health, where she ultimately served as the Deputy Director of the National Institute of General Medical Sciences. She then moved to the University of California, San Francisco, where she was the Assistant Vice Chancellor for Research Administration and then the Deputy Director of the Institute for Quantitative Biomedical Research.

Throughout her career, Dr. Shafer has mentored women and men (formally and informally) scientists, and non-scientists. She was a member of the Women in Cell Biology, Committee of the American Society for Cell Biology (ASCB) from 1990 through 2003 (chair from 1994 to 1998). She initiated the *Women in Cell Biology* column in the ASCB Newsletter (widely read by women and men for advice and insights to career development); and the ASCB's annual career lunch, a time for discussing career development issues among women (and men) scientists. She conceived and developed the idea for *AXXS* (*Achieving XXcellence in Science*) to facilitate and increase the contributions of women to science, working through their scientific societies. AXXS Committee activities (she was committee chair from 1998 to 2005) were supported by the Office of Research on Women's Health, NIH. As co-chair of UCSF Chancellor's Advisory Committee on the Status of Women, 2000 to 2002, she was co-principal investigator on a major study, commissioned by the Chancellor, of the climate for faculty at UCSF. The study paid particular attention to issues that impact women and men differentially.

Dr. Shafer is sought after for her perspectives and knowledge regarding women's careers. She was an invited participant and breakout group leader in a July 2000 conference, *Women in the Chemical Workforce*, sponsored by the Chemical Sciences Roundtable of the National Research Council. As an invited speaker and leader of the panel on the Middle East at the *Colloquium on Career Paths for Women in the Health Sciences: A Global Perspective*, she helped develop a report on career paths for women internationally for the Fogarty International Center and the Office of Research on Women's Health of the National Institutes of Health. She was also an invited panelist at a recent AAMC Workshop on Women in the Physician Workforce on the topic of Maximizing Contributions and Improving the Success of Women in Academic Medicine.

### Panel Session – Models for Advancement in Academia

2:20 p.m. – 3:20 p.m.

#### Judith S. Bond, Ph.D.

Professor and Chair Department of Biochemistry and Molecular Biology Pennsylvania State University College of Medicine

Judith S Bond, Ph.D., is Professor and Chair of Biochemistry and Molecular Biology at Penn State College of Medicine in Hershey PA. She is an Associate Editor of the Journal of Biological Chemistry, and the immediate Past President of the American Society for Biochemistry and Molecular Biology.

Bond received her B.S. in science from Bennington College in Vermont in 1961, and an M.S. and Ph.D. in biochemistry and physiology from Rutgers University in 1962 and 1966. She did postdoctoral work at Vanderbilt University until 1968, and then joined the faculty of the Department of Biochemistry at the Medical College of Virginia, Virginia Commonwealth University. She moved to Virginia Tech as Professor and Head of the Department of Biochemistry and Nutrition in 1988, and then to Penn States College of Medicine as Chair of Biochemistry and Molecular Biology in 1992.

Dr Bond's research on proteolysis, and particularly on unique and complex metalloproteases called meprins, has been funded continuously by the NIH for 32 years. She has authored over 150 refereed papers, and given over 140 invited lectures throughout the world. Dr Bond has a sustained interest in graduate education, having trained 14 Ph.D., 4 M.D./Ph.D., and 4 MS students; she currently has 4 Ph.D. students. She has also trained 18 postdoctoral fellows. She was director of the Medical Scientist Training Program at Penn State Hershey campus and obtained federal funding for this program. She served as Assistant Dean for Graduate Education from 1996-99, Co-Director of Graduate Education for the Life Sciences Consortium from 1995-2000, and Co-Director of the Chemical Biology Option of the Integrative Biosciences Graduate Program from 1996 to 2003. She served on several AAMC Committees, and is currently on the Scientific Foundation for Future Physicians Committee. Dr Bond's service includes membership on the NIH Biochemistry Study Section 1987-91, which she chaired from 1989-91, and on the NIDDK Advisory Council of the NIH 1996-2000. Dr Bond was elected president of the Assoc of Medical and Graduate Departments of Biochemistry 1996-97, the Council of the International Proteolysis Society 1997-2001, and the Council of the American Society for Biochemistry and Molecular Biology 1996-99 and 2002-04. She was named YWCA Outstanding Woman in Science and Health in Virginia in 1989, and Virginia's Outstanding Scientist in 1988, and was an NIH MERIT Awardee 1989-96. This year she was honored by the International Proteolysis Society, and by Penn State with the title of University Distinguished Professor.

#### Barry M. Klein. Ph.D.

Vice Chancellor for Research University of California, Davis

Barry M. Klein received his Ph.D. in condensed matter theory from New York University in 1969 following an undergraduate degree in Engineering Physics from NYU. From 1969-71 he held a postdoctoral appointment at the Naval Research Laboratory. In 1971 he became a member of the NRL staff working in condensed matter theory and in plasma physics on the theory of x-ray emission from laser-produced plasmas. In 1978 he became head of the NRL Electronic Structure of Solids Section, leading a theoretical effort in electronic structure studies of a wide range of solid systems, with particular emphasis on fundamental investigations of superconducting properties and point defects. In 1984-85 he was Program Manager for Condensed Matter Theory and Acting Section Head for Condensed Matter Sciences at the National Science Foundation. Returning to NRL in 1985, Dr. Klein became Branch Head for Condensed Matter Physics, supervising efforts in experimental x-ray physics, plasma spectroscopy and synchrotron radiation, in addition to theoretical condensed matter research. In 1989 Dr. Klein became Branch Head for the Complex Systems Theory Branch, leading a theoretical effort involving over 20 scientists engaged in studies of a wide range of condensed matter properties from electronic structure theory, to many body theory, to atomic physics. In 1992 Dr. Klein became Professor of Physics and Chair of the Department of Physics at the University of California, Davis. In 1998 he was appointed to the position of Vice Provost for Academic Personnel at UC Davis, a position he held for three years. On July 1, 2001 Dr. Klein was appointed Vice Chancellor for Research at UC Davis, his current position.

Dr. Klein is a Fellow of the American Physical Society, a Fellow and Chartered Physicist of the Institute of Physics, and he is a Foreign Member of the Russian Academy of Sciences. He has also been Chair of the APS Division of Computational Physics. He was been the recipient of a New York City Mayor¹s Committee on Scholastic Achievement undergraduate scholarship, a NASA graduate Fellowship and a National Research Council Postdoctoral Associateship. He has received several government awards including a Navy Meritorious Civilian Service Award in 1992. He has been a member of numerous NSF, DoD and DoE and DOE Laboratory committees including: the NSF Supercomputing Center Peer Review Committee; the High Performance Computing Advisory Board for Los Alamos and Oak Ridge National Laboratories; the Advisory Committee for Physical Sciences and Space Technology and the Director¹s Advisory Committee at the Lawrence Livermore National Laboratory; and the Materials Science and Technology Advisory Committee at the Los Alamos National Laboratory.

Dr. Klein's condensed matter research efforts have been in electronic structure theory and applications, studying the fundamental properties of condensed matter systems using theoretical and computational approaches. He has over 140 research publications.

#### Andrew I. Schafer, M.D.

Chairman, Department of Medicine Cornell University

Andrew I. Schafer, M.D., completed his medical education at the University of Pennsylvania, his internal medicine residency at the University of Chicago, and his fellowship in hematology at the Peter Bent Brigham (now Brigham and Women's) Hospital and Harvard Medical School. After rising through the ranks at Harvard to Associate Professor of Medicine, he moved to Houston in 1989 to become Chief of Medicine of the Houston VA Medical Center and then Chairman of the Department of Medicine at Baylor College of Medicine. In 2002 he became the Frank Wister Thomas Professor and Chairman of the Department of Medicine at the University of Pennsylvania. He assumed his current position in May 2007 as the E. Hugh Luckey Distinguished Professor and Chairman of the Department of Medicine at Weill Cornell Medical College and Physician-in-Chief of the New York-Presbyterian Hospital/Weill Cornell Medical Center.

Dr. Schafer is the author of more than 200 original articles and the editor of five textbooks in the field of hemostasis, thrombosis, and hematology. His clinical expertise is in the area of hematology, coagulation, and thrombosis. Dr. Schafer has made many important research contributions to the field of hemostasis and vascular cell biology. He has been the principal investigator of NIH grants for almost 30 consecutive years and has served on the Board of Extramural Advisors of the National Heart, Lung, and Blood Institute of the NIH. Dr. Schafer has been elected to membership in the American Society for Clinical Investigation (for which he served as Secretary-Treasurer), the Association of American Physicians, and fellowship in the American Association for the Advancement of Science.

Dr. Schafer was the 2007 President of the American Society of Hematology and is Presidentelect of the Association of Professors for Medicine for 2010–2011.

#### Elizabeth Ofili, M.D., M.P.H., F.A.C.C.

Associate Dean, Clinical Research Professor of Medicine and Director, Clinical Research Center Chief, Section of Cardiology, Morehouse School of Medicine

Dr. Ofili completed medical school with distinction at Ahmadu Bello University in Nigeria and received the Master of Public Health degree from Johns Hopkins University, Baltimore, Maryland. Dr. Ofili completed Internal Medicine Residency at Oral Roberts University in Tulsa, Oklahoma; Cardiology Fellowship at Washington University in St Louis Missouri, and Advanced Cardiovascular Research Fellowship at St. Louis University Health Sciences Center, St Louis Missouri. Dr. Ofili has an active interest in the mechanism of myocardial dysfunction with particular emphasis on the role of ultrasound imaging modalities. She received the Young Investigator Research Award from the American Society of Echocardiography for work on the physiologic basis of pharmacologic stress agents in a canine model of coronary artery disease.

In collaboration with Dr. Morton Kern, Dr. Ofili developed and validated the method of analysis of the intracoronary Doppler spectral wave form that remains in use in cardiac catherization laboratories for physiologic studies of coronary flow reserve in patients with coronary artery disease. She has received national and international recognition for her expertise in the field of echocardiography and for advancing scientific knowledge on the role of ultrasound imaging modality in clinical practice and population based research. As a recipient of the National Institute of Health Preventive Cardiology Academic Award, Dr. Ofili established large clinical patient database at Grady Memorial Hospital in congestive heart failure, chest pain and hyperlipidemia. Additionally, Dr. Ofili received the Center of Excellence Award from the Consortium of Southeastern Hypertension States for work on a community based network implementation of lipid and hypertension treatment algorithms to improve patient outcomes. Dr .Ofili has received over 50 million dollars in extramural funds for investigator initiated work as a principal investigator, co-investigator and from multicenter clinical trial contracts.

Other national awards include the Dr. Daniel Savage Scientific Award from the Association of Black Cardiologists; the Nannette K. Wenger Award for Health Policy from the Advocacy Group WomenHeart and the National Library of Medicine Exhibit, Changing the Face of Medicine, the Rise of America's Women Physicians. Dr. Ofili was recognized as one of America's leading physicians by Black Enterprise Magazine; Physician of the Year, by the U.S. Congressional Health Advisory Board; the nation's top twenty-five female physicians by Heart and Soul Magazine, and Who's Who in Black Atlanta.

She serves on the Board of Trustees of the Educational Commission for Foreign Medical Graduates (ECFMG); board of directors of the Georgia Medical Care Foundation and the Foundation for the Advancement of International Medical Education and Research.

Dr. Ofili is the founding Director and Principal Investigator of the National Institute of Health Center of Clinical Research Excellence at Morehouse School of Medicine. A Past-President of the National Association of Black Cardiologists, a member of the International Society of Hypertension in Blacks, the American Heart Association Scientific Councils on Clinical

Cardiology, Epidemiology and Prevention, and High Blood Pressure Research, Dr Ofili has served on the American Heart Association Science Advisory Committee, the National Institute of Health Clinical Research Advisory group, the NHLBI Women's Heart Health and the National Academy of Sciences, Institute of Medicine Committee on Global Research and Development in Cardiovascular Diseases.

Dr. Ofili has mentored over 45 junior faculty or postdoctoral fellows, and over 25 undergraduate students. She has published over 100 peer reviewed scientific papers and book chapters, over 60 abstracts of original work, and made over 400 scientific presentations on cardiovascular disease, healthcare disparities, and women's health, including over 50 keynote addresses, medical grand rounds and visiting professorships at national and international academic medical centers. Her work has appeared in publications and journals including *The Journal of American Medical Association, the New England Journal of Medicine, Circulation, Journal of the American College of Cardiology, American Journal of Cardiology, American Heart Journal, and Journal of the National Medical Association, Ethnicity & Disease and Urban Cardiology.* 

# Panel Session – Best Practices Initiatives at the NIH

3:50 p.m. – 4:50 p.m.

#### Kathryn C. Zoon, Ph.D.

Director Division of Intramural Research National Institute of Allergy and Infectious Diseases

Kathryn C. Zoon, Ph.D., has been Director of the Division of Intramural Research, National Institute of Allergy and Infectious Diseases, since January 2006. Previously, she was the Deputy Director for Planning and Development of the Division of Intramural Research since June 2004. Dr. Zoon was the Principal Deputy Director of the Center for Cancer Research at the National Cancer Institute (NIH) from 2003–2004. She served as the Director of the Center for Biologics Evaluation and Research (CBER), U.S. Food and Drug Administration, and was a member of the NIH Scientific Directors from 1992-2003. Dr. Zoon was the Director of the Division of Cytokine Biology in CBER from 1988-1992, where she directed the research and review of cytokines, growth factors, and cellular products. She was at NIH from 1975 to 1980 with Nobel Laureate Christian B. Anfinsen, studying the production and purification of human interferon. She has continued her research on the structure and function of human interferon alphas. She received her B.S. cum laude in chemistry from Rensselaer Polytechnic Institute in 1970 and was granted a Ph.D. in biochemistry from Johns Hopkins University in 1976. Dr. Zoon is an associate editor of the Journal of Interferon Research and the author of more than 100 scientific papers. She was president of the International Society for Interferon and Cytokine Research (ISICR) from 2000-2001. She served on the Foundation for Advanced Education in the Sciences (FAES) Board of Directors and was the first vice president from 1999-2003 and is currently the Federal Liaison to the Board of the International Association of Biologicals.

She has received numerous awards, including BioPharm Person of the Year Award 1992, the NIH Lectureship 1994, Sydney Riegelman Lectureship 1994, Genetic Engineering News (GEN) Award 1994 for streamlining and improving the regulatory process for biologics and biotechnology products, the Meritorious Executive Rank Award 1994 for sustained superior performance in revitalizing and reorganizing the Center for Biologics Evaluation and Research to meet the challenges of new responsibilities and new technologies, National Cancer Patients "Grateful Patients Award" 1996, Rensselaer Polytechnic Institute Alumni Association Fellows Award 1997, the DHHS Secretary's Award for Distinguished Service 1998 as a member of the FDA Reform Legislation Working Group, the 1999 Johns Hopkins University Delta Omega Alpha Chapter's 75<sup>th</sup> Anniversary Outstanding Member Award, the 2001 DHHS Secretary's Award for Distinguished Service for outstanding leadership in positioning FDA as an important contributor to the nation's capability to respond to bioterrorism.

Dr. Zoon was elected to the Institute of Medicine in October 2002. In June of 2003 she received the Johns Hopkins University Distinguished Alumna Award and two Department of Health and Human Service awards for counterbioterrorism and gene therapy. Finally, in May of 2005, Dr. Zoon received the DHHS Secretary's Award for Distinguished Service for the Tissue Action Plan Team.

#### Raynard S. Kington, M.D., Ph.D.

Deputy Director National Institutes of Health

Dr. Raynard S. Kington was appointed Deputy Director of the National Institutes of Health (NIH) as of February 9, 2003. The Deputy Director, NIH, functions as the Principal Deputy Director to the Director, NIH; and shares in the overall leadership, policy direction, and coordination of NIH biomedical research and research training programs of NIH's 27 Institutes and Centers with a budget of almost \$29 billion and 18,000 employees. Prior to this appointment, he had been Associate Director of NIH for Behavioral and Social Sciences Research since September, 2000. In addition to this role, from January, 2002 to November, 2002, he served as Acting Director of the National Institute on Alcohol Abuse and Alcoholism. Prior to coming to NIH, Dr. Kington was Director of the Division of Health Examination Statistics at the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention (CDC). As Division Director, he also served as Director of the National Health and Nutrition Examination Survey (NHANES), one of the nation's largest studies to assess the health of the American people. Prior to coming to NCHS, he was a Senior Scientist in the Health Program at the RAND Corporation. While at RAND, Dr. Kington was a Co-Director of the Drew/RAND Center on Health and Aging, a National Institute on Aging Exploratory Minority Aging Center.

Dr. Kington attended the University of Michigan, where he received his B.S. with distinction and his M.D. He subsequently completed his residency in Internal Medicine at Michael Reese Medical Center in Chicago. He was then appointed a Robert Wood Johnson Clinical Scholar at the University of Pennsylvania. While at the University of Pennsylvania, he completed his M.B.A. with distinction and his Ph.D. with a concentration in Health Policy and Economics at the Wharton School and was awarded a Fontaine Fellowship. He is board-certified in Internal Medicine and Public Health and Preventive Medicine. In 2006, Dr. Kington was elected to membership in the Institute of Medicine of the National Academy of Sciences.

Dr. Kington's research has focused on the role of social factors, especially socioeconomic status, as determinants of health. His current research includes studies of the health and socioeconomic status of black immigrants, differences in populations in willingness to participate in genetic research, and racial and ethnic differences in infectious disease rates. His research has included studies of the relationship between wealth and health status; the health status of U.S. Hispanic populations; the determinants of health care services utilization; the economic impact of health care expenditures among the elderly; and racial and ethnic differences in the use of long-term care.

#### Walter T. Schaffer, Ph.D.

Senior Scientific Advisor Extramural Research National Institutes of Health

Wally Schaffer currently serves as the Senior Scientific Advisor for Extramural Research, National Institutes of Health. Prior to his move to the immediate office of the Deputy Director for Extramural Research, Dr. Schaffer served as Acting Director of the Office of Extramural Programs. He has also served as the NIH Research Training Officer for the NIH and Deputy Director of the Division of Program Analysis in the Alcohol Drug Abuse and Mental Health Administration. He has been a Scientific Review Administrator and a Senior Staff Fellow for the National Institute of Alcohol Abuse and Alcoholism. He joined the NIH in 1978 after earning a Ph.D. in Biochemistry at the University of Texas Health Science Center at San Antonio and a B.S. in Chemistry (1974) from the University of Washington. His research interests include hormonal influence on age-related changes and the regulation of oxidative metabolism in brain.

#### Valerie Florance, Ph.D.

Deputy Director, Extramural Programs National Library of Medicine, National Institutes of Health

Valerie Florance, Ph.D., is Deputy Director of Extramural Programs at the National Library of Medicine, National Institutes of Health. She is responsible for a portfolio of advanced research topics in biomedical informatics and information sciences and for NLM's university-based informatics training program. Before coming to NLM in February 2001, she spent 3 years as Project Director for *better\_health @ here.now* at the Association of American Medical Colleges (AAMC), leading two expert committees in the development of a roadmap for the use of information technologies in health care and biomedical research activities.

Between 1986 and 1998, she held various faculty and administrative positions at the University of Rochester Medical Center, Johns Hopkins Medical Institutions, and the University of Utah, with responsibilities that included oversight of library and computing services, development of digital information resources, and teaching information skills and informatics concepts to faculty and students in the health sciences.

Dr. Florance received graduate degrees in medical anthropology and library sciences. She completed her doctoral studies in information sciences at the University of Maryland, College Park. Her dissertation centered on knowledge representation for clinical problem solving. She twice won the Medical Library Association's Ida and George Eliot prize for her articles about knowledge management in biomedicine.

She has been a member of the National Library of Medicine's Biomedical Library Review Committee, and was a member of the National Research Council/National Academy of Sciences study that published its report "Networking Health: Prescriptions for the Internet" in June 2000. In 2005, she was elected as a fellow to the American College of Medical Informatics.

#### Joan Schwartz, Ph.D.

Assistant Director
Office of Intramural Research
National Institutes of Health

Dr. Schwartz received her undergraduate degree in chemistry from Cornell University and her Ph.D. from Harvard University, with training in biological chemistry. After postdoctoral training at Rutgers Medical School, Dr. Schwartz moved to the National Institutes of Health (NIH), where she has spent her entire professional. Dr. Schwartz was a senior investigator, first in the National Institute of Mental Health, and then in the National Institute of Neurological Disorders and Stroke, studying neurotrophic factors. She is Assistant Director, Office of Intramural Research, Office of the Director, and has served as Acting Deputy Director, Office of Intramural Training and Education for 3 years. She chairs the NIH Committee on Scientific Conduct and Ethics, which developed the NIH course for tenure-track investigators, "How to Succeed as a PI at the NIH". She chaired the Second Task Force on the Status of Intramural Women Scientists and is a member of Dr. Zerhouni's NIH Working Group on Women in Biomedical Careers which is working to implement some of the recommendations of the Task Force.

#### Jeremy M. Berg, Ph.D.

Director National Institute of General Medical Sciences National Institutes of Health

Jeremy M. Berg became director of the National Institute of General Medical Sciences (NIGMS) in November 2003. He oversees a \$1.9 billion budget that funds basic research in the areas of cell biology, biophysics, genetics, developmental biology, pharmacology, physiology, biological chemistry, bioinformatics, and computational biology. The Institute supports more than 4,500 research grants—about 10 percent of the grants funded by NIH as a whole—as well as a substantial amount of research training and programs designed to increase the number of minority biomedical scientists.

Prior to his appointment as NIGMS director, Dr. Berg directed the Institute for Basic Biomedical Sciences at The Johns Hopkins University School of Medicine in Baltimore, MD, where he also served as professor and director of the Department of Biophysics and Biophysical Chemistry. In addition, he directed the Markey Center for Macromolecular Structure and Function and codirected the W.M. Keck Center for the Rational Design of Biologically Active Molecules at the university.

Dr. Berg's research focuses on the structural and functional roles that metal ions, especially zinc, have in proteins. He has made major contributions to understanding how zinc-containing proteins bind to the genetic material DNA or RNA and regulate gene activity. His work, and that of others in the field, has led to the design of metal-containing proteins that control the activity of specific genes. These tailored proteins are valuable tools for basic research on gene function, and such proteins could one day have medical applications in regulating genes involved in diseases, as well. Dr. Berg has also made contributions to our understanding of systems that target proteins to specific compartments within cells and to the use of sequence databases for predicting aspects of protein structure and function.

Dr. Berg served on the faculty at Johns Hopkins from 1986-2003. Immediately before his faculty appointment, he was a postdoctoral fellow in biophysics at the university. His honors include a Presidential Young Investigator Award (1988-1993), the American Chemical Society Award in Pure Chemistry (1993), the Eli Lilly Award for Fundamental Research in Biological Chemistry (1995), and the Maryland Outstanding Young Scientist of the Year (1995). He also received teaching awards from both medical students and graduate students and served as an advisor to the Johns Hopkins Postdoctoral Association since its founding.

Dr. Berg received B.S. and M.S. degrees in chemistry from Stanford University in 1980 and a Ph.D. in chemistry from Harvard University in 1985. He is a coauthor of more than 130 research papers and three textbooks, *Principles of Bioinorganic Chemistry, Biochemistry (5th Edition* and 6th Edition), and A Clinical Companion to Accompany Biochemistry.

#### Joan R. Goldberg

Executive Director American Society for Cell Biology

Joan R. Goldberg is executive director of the American Society for Cell Biology (ASCB) in Bethesda, Maryland. She has also held leadership positions for the American Society for Bone and Mineral Research and the National Sleep Foundation. During the last 30 years her work has focused on advancing biomedical research. Goldberg has developed award-winning public and Congressional educational initiatives emphasizing research's impact on human health.

At ASCB Goldberg oversees an innovative portfolio of educational, career development, public policy, and publications programs. She works closely with the Society's Women in Cell Biology and Minorities Affairs Committees on columns and books, web-based materials, workshops, awards, and outreach efforts. Several of these programs have been, and continue to be, supported by the Office of Research on Women's Health and the National Institute of General Medical Sciences. She has also presented new approaches for program evaluation, strategic planning, and conflict of interest management. In 2007 she presented at the first Aspen Health Forum and served on the Conflict of Interest Coalition for the Federation of American Societies for Experimental Biology. She is the author of three books, including *High-Tech Career Strategies for Women*, and hundreds of articles.

# Wrap Up and Next Steps 4:50 p.m. – 5:20 p.m.

#### Barbara M. Alving, M.D.

Director National Center for Research Resources National Institutes of Health

Dr. Barbara M. Alving is the Director of the National Center for Research Resources (NCRR) at the National Institutes of Health. NCRR provides laboratory scientists and clinical researchers with the environments and tools they need to understand, detect, treat, and prevent a wide range of common and rare diseases.

Dr. Alving earned her medical degree *cum laude* from Georgetown University School of Medicine, where she also completed an internship in internal medicine. She received her residency training in internal medicine at the Johns Hopkins University Hospital, followed by a fellowship in hematology. Dr. Alving then became a research investigator in the Division of Blood and Blood Products at the Food and Drug Administration. In 1980, she joined the Department of Hematology at the Walter Reed Army Institute of Research and became Chief of the Department in 1992. She left the Army at the rank of Colonel in 1996 to become the Director of the Medical Oncology/Hematology section at Washington Hospital Center in Washington, D.C. In 1999, she joined the National Heart, Lung, and Blood Institute (NHLBI), serving as the Director of the extramural Division of Blood Diseases and Resources until becoming the Deputy Director of the Institute in September 2001. From September 2003 until February 1, 2005, she served as the Acting Director of NHLBI. In March 2005 she became the Acting Director of NCRR and was named Director in April 2007.

Dr. Alving is a Professor of Medicine at the Uniformed Services University of the Health Sciences in Bethesda, a Master in the American College of Physicians, a former member of the subcommittee on Hematology of the American Board of Internal Medicine, and a previous member of the FDA Blood Products Advisory Committee. She is a co-inventor on two patents, has edited three books, and has published more than 100 papers in the areas of thrombosis and hemostasis.