

# Arteriosclerosis, Thrombosis and Vascular Biology

## From the Chair

Elizabeth G. Nabel, MD

**D**ear Council members, as I write this message in early spring, I anticipate that our Council will have a number of activities completed by the time this Newsletter reaches you in the summer. We are looking forward to our 4th annual Arteriosclerosis, Thrombosis and Vascular Biology Scientific meeting, in May in Washington, DC. This meeting has been enormously well received by our members with growing attendance each year. Attendees find that it is a meeting where many scientific discussions and interactions can take place. Early investigators and trainees especially find it to be a productive venue. Our annual Council dinner will take place at the spring meeting at which time we will announce the Jeff Hoeg awardee. Our tremendous thanks to Linda Curtiss and the Conference Planning Committee again for their outstanding efforts!

I am delighted to announce that Alan Daugherty is our new Program Chair for the Scientific Sessions meetings in November. Alan will be assuming the reins from Mark Taubman over the summer. We are always looking for active participants to serve on the Program Committee. While the program for 2003 Sessions will be set in July, Alan and his Committee will begin planning for the 2004 Sessions meeting in December 2003. Ideas for the scientific program are welcome. Thank you, Mark, for your superb efforts in serving as Program Chair for the past couple of years.

By the time this Newsletter reaches you, I will be signing off as Council Chair and welcoming Kathy High as our new Council Chair for 2003-04. Kathy and I encourage you to become active in the Council and volunteer. We are always looking for Council members to represent the Council and carry our scientific commitment to arteriosclerosis, thrombosis and vascular biology forward.

## Awards from the ATVB Meeting

### Young Investigator Prizes in Thrombosis

*Sharlene M. Day, abstract #19 — Winner*  
*Shinya Goto, #20*

*Kenji Matsushita, #21*

*Susan S. Smyth, #22*

### Irvine H. Page Young Investigator Research Awards Competition

*Toshihiro Ichiki, abstract #23*

*Wang Min, #24*

*Eric J. Smart, #25 — Winner*

*Rhian M. Touyz, #26*

*Subodh Verma, #27*

### Jeffrey M. Hoeg Arteriosclerosis, Thrombosis and Vascular Biology Award for Basic Science and Clinical Research

The 2003 Hoeg Award was presented to *Linda L. Demer, MD, PhD*, Guthman Professor of Medicine and Physiology at the University of California, Los Angeles School of Medicine.

## A Perspective on the Women's Health Initiative

Loretta P. Mayer, PhD, University of Arizona (recipient of Junior Investigator for Women postdoctoral level award)



In the next decade, the greatest number of women to-date at one time will be peri- and post-menopausal. This comes at a time when the Women's Health Initiative (WHI) continues to

fundamentally challenge the long-held notion that hormone replacement therapy (HRT) is beneficial. By the year 2025, more than 22% of the female population will be post-menopausal. The average age of onset of menopause in the United States is 51. With an average life expectancy of 81, greater than 35% of a woman's lifetime will be spent in this reproductive life cycle. Peri-menopause is the 5-10 year period before complete cessation of

ovarian cyclicality. Post-menopause is, by definition, one year past the final menstrual period. Greater public interest is being paid to heart disease as the number one killer of women, demonstrated by the April 2003 TIME feature issue, and hopefully, this increase in public awareness will result in increased funding to enhance laboratory research on this area of cardiovascular disease.

The support of the Women's Leadership Committee has been truly a high point in my scientific career as it represents a validation of my path to pursue scientific knowledge in women's health. In 1992, following a 20-year career in business, I decided to prepare myself to contribute to women's health, specifically in the area of cardiovascular disease as it had claimed the lives of several close friends and family. My re-entry into the graduate process was not supported by all, primarily due to my age, but the few true supporters were dedicated

and provided resources to me that have been extraordinary. Dr Cheryl Dyer and Dr Carole Banka were inexhaustible in their support of my graduate career. And during my early postdoctoral days, they combined their research interests with those of my mentor, Dr Patricia Hoyer, to pursue the development of an ovary-intact, follicle-deplete mouse model that would provide a research tool for investigations of peri- and post-menopausal reproductive life cycles. These dedicated women were willing to make an investment in my non-traditional career path validating the need for dedicated researchers in women's health.

For over 50 years, women have been prescribed HRT without properly designed clinical trials to define the risk benefit ratio necessary to support this clinical practice. The halt of the WHI in July 2002 raises the question of the continued use of women in interventional trials to evaluate the long-term impact of HRT. The WHI tested one

## The 4th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology

Henry Ginsberg, MD

The fourth annual conference on Arteriosclerosis, Thrombosis and Vascular Biology, known as the spring ATVB meeting, took place in Washington, DC, on May 8-10, 2003. It was attended by more than 775 scientists interested in the various fields of research focused on the cause, prevention, and treatment of atherosclerotic cardiovascular disease. The spring ATVB meeting was initiated as a way to provide young scientists with a more relaxed and yet intense venue for the presentation of their work. Because of its relatively small size, attendees have much more time to focus on the science that is being presented, particularly at the poster sessions. For the young scientists, the chance to engage more senior members of the community are much greater at the spring meeting than at the more hectic AHA Scientific Sessions in the fall of each year.

Continuing the outstanding tradition already established, this year's meeting had outstanding plenary sessions from senior investigators such as Chris Glass, Robert Hegele, Denisa Wagner, David Cheresh, Gerald Shulman, Linda Demer (recipient of the Jeffrey Hoeg Award), James Ntambi, Sanford Shattil, Karen Hirschi, Paul Kulesa, and Eric Smart.

The key to the success of the spring ATVB meeting is the ability of investigators in different areas of investigation to attend the multi-focused plenary sessions and to move from one area to another while attending the concurrent sessions which are all located within a few feet of each other. The 2-hour poster sessions, with no competition from other activities, is the highlight of each day. It is hoped that more senior investigators in ATVB will see that the spring ATVB meeting is a critical meeting to attend and one where their junior colleagues can present and interact with their colleagues.

formulation of combined HRT, Prempro, leaving the unanswered question of whether or not other HRT formulations could demonstrate more positive risk benefit ratios. The absence of a cost-effective animal model that accurately mimics human peri- and post-menopause is the major obstacle to evaluating candidate interventional therapies. The animal model should exhibit ovarian failure similar to that in women. As women age the eggs contained in estrogen-producing follicles become depleted. Greater than 99% of the follicles a woman is born with are eliminated by atresia, a natural process of cell death called apoptosis. Once the ovary is depleted of follicles, menstrual cyclicity ceases and hormone profiles change with a drop in estradiol and feedback response increase in follicle stimulating hormone (FSH).

In the laboratory of Dr Patricia Hoyer, and with the support of a postdoctoral fellowship from the Desert Mountain Affiliate of the American Heart Association, we have developed a process to chemically induce premature ovarian failure by accelerating the natural process of atresia in mice. This model offers the first ever non-primate

mammalian model of peri-menopause and further offers a model of menopause that more closely resembles the physiological changes associated with menopause in women. Mice are rapidly made follicle deplete via a chemical treatment that has no general toxic effects. The follicle-deplete mice exhibit an endocrine phenotype which mimics that of human peri- and post-menopause, including immeasurable estradiol, high FSH concentration, loss of cyclicity, and relative androgen excess. In an effort to make these mice commercially available we have licensed the protocol to The Jackson Laboratory. Production of the follicle-deplete mouse will be available in inbred strains and in combination with over 90 of their existing disease models enabling investigators to test candidate compounds and interventions on diseases associated with both peri- and post-menopause. It is my sincere hope that this technology will advance research in the cardiovascular health issues facing women as they age. The support of this ATVB award provides strong encouragement to continue my research and recruit more women to this endeavor.

## Updates From The Women's Leadership Committee

Martha Cathcart, PhD

**T**he Women's Leadership Committee (WLC) sponsored a program during the National AHA meeting in Chicago last November. Dr Virginia Valian was the speaker, and her talk was entitled "Why so slow: The advancement of women in academia." She is an expert and author on unintentional gender bias, especially in universities. Dr Valian's talk was insightful and offered useful strategies for overcoming gender barriers in academia. Funds were generously provided by Novartis, Abbott, Wyeth and Pfizer.

The WLC also sponsored a lunch and program at the spring ATVB Conference in Washington, DC. After a brief welcome by Dr Martha Cathcart, committee chair, the award finalists in the Junior Investigator for Women competition were introduced: Greta L. Hoetzer, BS, Loretta P. Mayer, PhD, Jingjing Tang, PhD and Melissa L. Hubbert, BS. This was followed by the presentation of the Women's Leadership Mentoring Award. Dr Mary Sorci-Thomas, the 2002 awardee, gave a brief presentation, as she was unable to be present last year. This was followed by the presentation of the 2003 Mentoring Award to Dr Elizabeth Nabel of NIH. Dr Nabel spoke to the group about the importance of mentoring in career development and identified key mentors who contributed to her career advancement. In the final session of the ATVB meeting, the recipients of the Junior Investigator for Women Awards were announced. Loretta P. Mayer, PhD, received the postdoctoral level award and Melissa L. Hubbert, BS, received the graduate student level award. Each awardee received a check for \$750 and a plaque.

The WLC encourages all ATVB members and their friends to attend the luncheon to be held in Orlando at the National AHA meeting, November 10, 2003. The program will feature Dr Katherine A. Loveland. Dr Loveland is currently Director of the Center for Human Development Research at the University of Texas, Houston, and will speak on "Self-Presentation: Visibility and Your Career."



L to R: Lindsey Miles, Linda Curtiss, Carole Banka, Kathy High, Lynn Hedrick, Mary Sorci-Thomas, Betsy Nabel, Martha Cathcart