The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease is committed to fighting heart disease on three fronts: by providing the most innovative and comprehensive preventive care and treatment; by educating health care professionals on the most effective ways to prevent heart disease; and by pursuing leading-edge research on atherosclerosis and the risk factors for heart disease. We have built The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease with the following goals in mind: provide a center dedicated to clinical patient care and the global assessment of risk factors for cardiovascular disease; create a center at Johns Hopkins for the education of health care providers...
The Ciccarone Center for the Prevention of Heart Disease is initiated through the determined efforts of the friends and players of Henry A. Ciccarone.

The Ciccarone Center begins seeing its first patients on the 5th floor of the Blalock Clinical Science Building.

Drs. Pascal J. Goldschmidt, Paul Bray, and Ethan Weiss, discover the “Grinkov factor,” which aids diagnosis of early heart attacks.

Dr. Charles Lowenstein joins as a clinical faculty member, and Drs. Wendy Post (top) and Gary Gerstenblith (bottom) followed in 1996.

Dr. Sherita Golden joins the group as an endocrinology and diabetes specialist.
Drs. Erin Michos (top) and Elizabeth Ratchford (bottom) become members of the Ciccarone Center faculty.

Nurse practitioner Dominique Ashen, PhD, CRNP, joins the group to help patients improve their lifestyle habits through behavior changes.

Dr. Steven Jones (top) and Rinky Bhatia (bottom) return to Johns Hopkins and become formally affiliated with the Ciccarone Center.

Dr. Susan Zieman (top), a nationally recognized expert in hypertension and geriatric cardiology, and Dr. Rhondalyn McLean (bottom), an expert in acute coronary syndromes and heart attack management, join the Ciccarone Center.

Dr. Ashen publishes a featured article in the New England Journal of Medicine on HDL-cholesterol.

2002 2005 2007 2008 2009
Message from the Director

It is with great pride that I announce that The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease has entered its 20th year of operation! Established in 1990 to provide a comprehensive approach toward patient care, the Ciccarone Center examines all aspects of a patient’s lifestyle habits, medical history, and family history to best determine a person’s risk of heart disease and stroke and to develop a plan to significantly reduce that risk.

We have accomplished a great deal, not only over the past year, but also over the past two decades. The Ciccarone Center has made tremendous strides in defining the standard in preventive cardiovascular care, in both clinical and basic research related to diagnosis and treatment of atherosclerotic vascular disease. Other essential elements of our efforts have been to provide formal instruction to medical students, residents, fellows, and nurses throughout the Johns Hopkins community, and to present our findings at national meetings and in the scientific literature. As a result, the Ciccarone Center is one of the fastest growing clinical programs at Johns Hopkins, widely regarded for its innovative and effective approaches to cardiovascular disease prevention and treatment. Turn to page 2 to see highlights of our accomplishments in 2009.

I am also saddened by the realization that it’s been a little more than 20 years since Henry Ciccarone’s tragic death in November 1988. Chic, as he was affectionately known, was a friend and mentor, as well as a legendary athlete and lacrosse coach at Johns Hopkins University. His sudden death at age 50, following two prior heart attacks, inspired us to create The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease in his memory. Together with close friends and former players, we raised enough funds to develop a comprehensive program geared toward the prevention of coronary heart disease. Our other goal for the Ciccarone Center was to unite the proud traditions of Hopkins lacrosse and Hopkins Medicine. I can confidently state we have met our goals.

In honor of this momentous occasion, I will use this year’s annual report as a way to look back at what’s been accomplished since our inception in 1990 as a small clinical operation on the 5th floor of the Blalock Clinical Science Building. There has been incredible growth in the variety of care provided and the diagnosis and treatment innovations that have emerged. We have a diverse and talented faculty that has a strong commitment to pioneering education and leading-edge research. As you will see, beginning on page 7, we have been hard at work over the past two decades at the Ciccarone Center, honoring the memory of one of Hopkins’ finest in our commitment to “face off against heart disease.”

The activities of the Ciccarone Center have been expanding each year. However, maintaining our dynamic and effective programs requires the support of generous donors. Most of us have seen the impact of heart disease in the lives of coworkers, friends, or loved ones. Yet there is much that can be done to help people at risk, and the Ciccarone Center is at the forefront of innovative treatment and research. Your generous support keeps our efforts going — and could help contribute to a positive outcome in the life of someone you know. We welcome and appreciate your support.

Sincerely,

Roger S. Blumenthal, M.D.
Professor of Medicine
Director, The Johns Hopkins Ciccarone Center
for the Prevention of Heart Disease
The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease is committed to fighting cardiovascular disease on three fronts:

• Providing innovative and comprehensive preventive clinical care and treatment;
• Educating health care professionals on the most effective ways to prevent heart disease; and
• Pursuing leading-edge research on atherosclerosis and the risk factors for heart disease.

This past year has been an important one in terms of accomplishing our goals. Following is a brief overview of what we achieved in 2009.

Important Original Research

The Ciccarone Center continues to publish important original research articles, editorials, and review articles in many of the world’s top cardiology, internal medicine, epidemiology, endocrinology, and genetics journals. In 2009, our group published a number of significant basic and clinical research findings, commentaries, and review articles in several leading medical journals, including:

- American Journal of Cardiology (8 publications)
- Arteriosclerosis Thrombosis & Vascular Biology (2 publications)
- Atherosclerosis (9 publications)
- Circulation (7 publications)
- Clinical Chemistry (3 publications)
- Hypertension (2 publications)
- Journal of the American College of Cardiology (3 publications)
- Journal of the American Medical Association (2 publications)
- Journal of the American College of Cardiology (3 publications)
- JACC Cardiovascular Imaging (2 publications)
- Journal of the American Medical Association (2 publications)
- New England Journal of Medicine (2 publications)
- Preventive Cardiology (3 publications)
- Proceedings of the National Academy of Sciences (1 publication)

A more detailed description of what articles we have published over the past year, can be found in the separate publications supplement to this annual update.

New Offices at Green Spring Station

After a decade of basing our main clinical operations in Timonium, adjacent to the Maryland Athletic Club and Wellness Center (MAC), we have relocated our offices a few miles away to Johns Hopkins at Green Spring Station. This move provides us with a greater amount of space in which to better serve our patients. All of us at Hopkins
are most grateful for the marvelous philanthropic support that MAC owners and developers, Tim and Liz Rhode, have given to our clinical and basic science research efforts over the past decade. We will continue to work closely with the MAC's Healthy Start Program and its cardiovascular screening activities.

**Stanley L. Blumenthal, MD Research Awards**

Since 2004, the annual Stanley L. Blumenthal, MD, Preventive Cardiology Research Awards have been presented to the Hopkins postdoctoral fellow, graduate student, or resident submitting the best abstracts to the American Heart Association or American College of Cardiology Scientific Sessions. The recipients for 2009 are Dr. Chiadi Ndumele, who received the Clinical Science Award; Dr. Dou Alvin Zhang, who received the Basic Science Award; and Dr. Valeriani Bead, who received the Translational Science Award.

Dr. Ndumele's work focused on the use of cardiac CT, cardiovascular risk prediction, and obesity. Dr. Zhang's work dealt with inflammation, heart failure, and the potential use of drugs similar in action to Viagra. Dr. Bead's work dealt with sickle cell disease, endothelial dysfunction, and vascular stiffness.

Additional information about the Blumenthal Research Awards, including a list of past recipients, can be found on page 18.

**P.J. Schafer Cardiovascular Research Grants**

The P.J. Schafer Cardiovascular Research Grants fund the efforts of clinical investigators seeking a better understanding of how to diagnose premature heart disease and prevent sudden cardiac death. The initial recipient of this prestigious award, which is given to a junior faculty member, was Dr. Erin Michos. The 2008-2009 grants were awarded to Drs. Richard George and Saman Nazarian. Hopkins Cardiology is indebted to Paul and Vivian Schafer for their hard work and generous contributions in support of cutting-edge research geared to the prevention of sudden cardiac death, which took the life of their son, P.J.

Additional information about the Shafer Grants, including a list of past recipients, can be found on page 20.

**Staff Changes**

There were several staff changes in 2009. In May, Dr. Charles Lowenstein left to become Chief of Cardiology at the University of Rochester, ending a 15-year run at the Ciccarone Center. We will miss his seminal contributions to the field of vascular biology and wish him the best in his new venture. We also look forward to future collaborations.

In September, Dr. Susan Zieman formally became a member of the Ciccarone Center. Dr. Zieman, a national leader in the field of geriatric cardiology, has special expertise in hypertension and vascular stiffness. She also attends on the Cardiology Consultation service and is an expert in noninvasive cardiac imaging.

Dr. Rhondalyn McLean, an expert in acute coronary syndromes and heart attack management, joined the Ciccarone Center in November.
What Is the Ciccarone Center? – An Overview

Since 1990, the mission of the Ciccarone Center for the Prevention of Heart Disease has been three-fold:

- To create excellent clinical care for people at risk of developing heart disease
- To educate health care practitioners about how to better identify and care for patients at risk of developing heart disease
- To establish rigorous research programs to study better prevention of heart disease

Relentless pursuit of these goals over the past 20 years has led to the creation of one of the fastest growing clinical and research programs at Johns Hopkins, which is highly regarded for its innovative and effective approaches to cardiovascular disease prevention and treatment.

Clinical Care
The trademark of the Ciccarone Center is its comprehensive approach, which involves both global assessment and aggressive management of multiple risk factors (not just single risk factors, such as high blood pressure or high cholesterol) contributing to the development and progression of atherosclerosis. Our clinical center is dedicated to:

- The detection and management of individuals at risk for accelerated atherosclerosis (primary prevention) to prevent or delay the onset of cardiovascular disease, and
- The management of patients with established vascular disease (secondary prevention) to reduce recurrent cardiovascular events and decrease mortality.

Education
Our educational efforts are aimed at the medical community and the general public. The Ciccarone Center also serves as a model for teaching the art of prevention of cardiovascular disease to fellows, residents, and students at the Johns Hopkins School of Medicine and the Bloomberg School of Public Health.

Our physicians and nurse practitioner are also lecturers for medical and nursing students and physicians at Hopkins and at national meetings. Hopkins Medicine also organizes meetings to address educational issues for the public.

Research
As part of Johns Hopkins, the Ciccarone Center for the Prevention of Heart Disease is committed to conducting cutting-edge research on atherosclerosis and risk factors for heart disease. We conduct research on two levels:

- Clinical research studies of cardiovascular disease involving informed, consenting adults, and
- Basic research and experiments at the cellular and subcellular levels to decipher the molecular reactions leading to atherosclerosis.

A Personalized, Comprehensive Approach
The Ciccarone Center specializes in managing adults who are at high risk for future cardiovascular disease because of the presence of multiple cardiac risk factors (such as hypertension, dyslipidemia, diabetes, smoking, sedentary lifestyle, or overweight status) or a history of known cardiovascular or peripheral arterial disease.

The Ciccarone Center’s personalized, comprehensive approach to lifestyle and medical management can slow the progression of cardiovascular disease and decrease one’s future risk of a heart attack, stroke, bypass surgery, angioplasty, or stenting. We also sponsor research that includes both clinical trials and basic molecular studies.

Dr. Erin Michos, who has special expertise in heart disease prevention in women and the appropriate use of emerging risk factors, was the first recipient of a P.J. Schafer Cardiovascular Research Grant.
Several groups of patients have been of particular interest to the Ciccarone Center:

- Women and ethnic minorities
- Patients with metabolic disorders, in particular inherited dyslipidemias, the metabolic syndrome, and diabetes
- Patients with the accelerated atherosclerosis
- Persons with a family history of coronary heart disease or stroke
- Persons with recurrent chest pain but no established cardiovascular disease
- Heart and renal transplant patients
- Patients with peripheral arterial disease

**State-of-the-Art Testing**

We are especially interested in individuals who develop cardiovascular disease before the age of 65. We have special expertise in the screening and management of asymptomatic family members of persons with premature atherosclerotic disease. Our team may selectively employ state-of-the-art testing to help identify factors contributing to heart disease clustering in families.

For an individual patient, we may use the latest assessment techniques to measure lipoproteins (total cholesterol, HDL-cholesterol [HDL-C], LDL-C, and triglyceride levels) and apolipoproteins (Lp[a], apolipoproteins A-1 and B) as well as nontraditional risk factors, such as high-sensitivity C-reactive protein (hs-CRP), and measurements of lipoprotein size and number. However, for many individuals these emerging risk factors are often not needed to optimize their management.

**Advanced Diagnostic Tools**

Among asymptomatic adults with no history of cardiovascular disease, we may use a 64-slice or a 320-slice multidetector computed tomography (MDCT) scan of the chest to measure the amount of coronary artery calcification. The presence of elevated coronary artery calcification (e.g. > 75th percentile for one's age and gender) or thickened carotid arteries is a sign of accelerated atherosclerosis for one's age and may lead to more aggressive attempts at comprehensive risk factor changes through both medical management and lifestyle modification. Occasionally, a cardiac CT angiogram may also be indicated in patients with atypical chest pain and inconclusive stress test results. After an initial comprehensive evaluation, we can inform a patient whether his/her management might be changed by some of the more sophisticated laboratory and diagnostic testing that we can provide.

**Improving Lifestyle Habits**

Dominique Ashen, PhD, CRNP, a nurse practitioner who specializes in helping people improve their lifestyle habits, assists patients with behavior changes such as:

- Following healthier diets
- Maintaining a prudent body weight
- Smoking cessation
- Maintaining a regular aerobic program
- Coping better with stress

We also refer patients to the Johns Hopkins Clinical Exercise Center as well as to the state-of-the-art MAC Healthy Start program to optimize their lifestyle habits. We encourage all individuals with known cardiovascular disease, peripheral arterial disease, diabetes, or congestive heart failure to participate in a supervised exercise program.

With help from the staff at the Ciccarone Center, people with known cardiovascular diseases can improve their lifestyle habits and behaviors by participating in a supervised exercise program.
Our Mission

We have built The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease with the following goals in mind:

1. **Provide a center dedicated to clinical patient care and the global assessment of risk factors for cardiovascular disease, which enables patients to receive:**
   
   - the latest information on the prevention of atherosclerotic vascular disease,
   - comprehensive management of risk factors for cardiovascular disease, and
   - high-quality care that is integrated into the other health promotional resources of Johns Hopkins.

2. **Create a center at Johns Hopkins for the education of health care providers in the area of prevention of cardiovascular disease. Teaching by our physicians and nurse practitioner broadly targets Hopkins nurses, medical students, fellows, and physicians as well as the community at large.**

3. **Foster cardiovascular research, including both clinical trials and basic molecular studies.**
Honoring a Legend
The Ciccarone Center for the Prevention of Heart Disease was initiated in 1989 through the determined efforts of Dr. Roger S. Blumenthal (then a Fellow in the Division of Cardiology at Johns Hopkins), in memory of his close friend, Henry A. Ciccarone, a legendary athlete and lacrosse coach at Johns Hopkins, who died at age 50 after several heart attacks. Dr. Blumenthal, together with Drs. Myron Weisfeldt and Nicholas Fortuin, gathered the friends and former players of Coach Ciccarone to raise funds for the development of a comprehensive program geared toward the prevention of coronary heart disease events.

The clinical impact of the Ciccarone Center for the Prevention of Heart Disease was established, with the opening of its office in 1990, and has been building each year since. In 1992, three faculty members and two health educators saw patients several days a week. In 1995, Dr. Charles Lowenstein joined as the fourth clinical faculty member, and Drs. Wendy Post and Gary Gerstenblith followed in 1996.

In 2000, Dr. Sherita Golden joined our group as an endocrinology and diabetes specialist, and Drs. Erin Michos and Elizabeth Ratchford became members of the Ciccarone Center faculty in July 2007. Dr. Ratchford established a specialized focus on the emerging field of vascular medicine. She sees patients with peripheral arterial disease, carotid and aortic diseases, and venous disease and she performs state-of-the-art ultrasound studies to evaluate these conditions. Dr. Michos has special expertise in heart disease prevention in women and the appropriate use of emerging risk factors.

In 2008, Drs. Steven Jones and Rinky Bhatia returned to Johns Hopkins and became formally affiliated with the Ciccarone Center. They both have extensive knowledge of atherosclerotic vascular disease and emerging cardiovascular risk factors that can be assessed via blood tests and through atherosclerosis imaging. In 2009, Dr. Susan Zieman, a nationally recognized expert in hypertension and geriatric cardiology, and Dr. Rhondalyn McLean, an expert in acute coronary syndromes and heart attack management, joined the Ciccarone Center.

Specialized Expertise
For two decades, the Ciccarone Center clinical faculty have continually provided specialized expertise in a range of preventive medicine areas, including endocrinology (Dr. Golden), cardiology (Drs. Blumenthal, Post, Michos, Jones, Zieman, Bhatia, Gerstenblith, and McLean), and peripheral arterial disease (Dr. Ratchford), which enables a comprehensive approach to the management of patients. In addition, our superb nurse practitioner/health educator, Dominique Ashen, PhD, CRNP, provides expertise in lifestyle counseling as well as medical management related to all issues of preventive cardiology.

Organizers of the inaugural Heartfest included (from left) Donovan and Linda Hamm, John Mantis, Roger Blumenthal, Sid Gottlieb, Dave Schroeder and Joe Ciletti.
Looking Back, Looking Ahead

Satellite Offices

In November 1994, we began the expansion of our treatment facilities by seeing additional patients at the Johns Hopkins Green Spring Station complex. In January 2000, Drs. Post and Blumenthal began seeing patients at Johns Hopkins Heart Health in Timonium. In December 2009, the Timonium office was moved to Johns Hopkins at Green Spring Station, to occupy a much larger office space that became available. Our physicians and nurse practitioner see patients five days a week at Green Spring Station and one day a week at the Johns Hopkins Outpatient Center.

In July 2007, Dr. Michos began seeing patients in Odenton, Maryland, in Anne Arundel County. Dr. Bhatia sees patients at Odenton and Columbia, Maryland, while Dr. Jones sees patients at the Hopkins Outpatient Center. Dr. Ratchford sees patients and offers vascular ultrasound testing at all of the Hopkins Cardiology satellite offices, including Green Spring Station, White Marsh, Odenton, and Columbia.

Other factors that have contributed to the growth of the Ciccarone Center include:

- The growing societal interest to address health problems at an early stage, when prevention can markedly reduce the occurrence of heart attacks and the need for procedures such as angioplasty, stenting, or bypass surgery.
- The utilization of multidetector cardiac CT, vascular ultrasound, and selected biomarker blood tests to help improve cardiovascular risk assessment.

Multidisciplinary Team

Through a determined effort, the Ciccarone Center for the Prevention of Heart Disease now employs a multidisciplinary team of cardiologists, endocrinologists, vascular medicine specialists, and a nurse practitioner. We specialize in managing adults who are at high risk for future cardiovascular disease either because of the presence of multiple cardiac risk factors (such as hypertension, dyslipidemia, diabetes, smoking, sedentary lifestyle, overweight status) or a history of known cardiovascular or peripheral arterial disease.

Faculty

Roger S. Blumenthal, MD, Director
Wendy Post, MD
M. Dominique Ashen, PhD, CRNP
Steven R. Jones, MD
Erin Michos, MD
Susan Zieman, MD
Gary Gerstenblith, MD
Elizabeth Ratchford, MD
Rinky Bhatia, MD
Rhondalyn McLean, MD
Sherita Hill Golden, MD, MHS
Juan Rivera, MD (Adjunct faculty)
Ty J. Gluckman, MD (Adjunct faculty)

Postdoctoral Fellows

Khurram Nasir, MD
Catherine Y. Campbell, MD
Andrew DeFilippis, MD
Kiran Musunuru, MD
Chiadi Ndumele, MD
Michael J. Blaha, MD
Garth Graham, MD
Kerunne Ketlogetswe, MD
Aaron Horne, MD
Kavita Sharma, MD
Gabriel Brooks, MD

Dr. Rhondalyn McLean, an expert in acute coronary syndromes and heart attack management, recently joined the Ciccarone Center.
The Ciccarone Center's formal teaching program is designed to promote the importance of preventive medicine to Hopkins faculty, fellows, and students, as well as to the medical community at large.

Formal Teaching Program

Our formal teaching program is designed to promote awareness among Hopkins faculty, fellows, and students, as well as the medical community at large, of the importance of preventive medicine. It has been a touchstone for the personnel at the Ciccarone Center for the Prevention of Heart Disease and has several components and goals.

- **Medical Students.** Our physicians play a key role in teaching atherosclerosis and preventive cardiology within the Pathophysiology Course for second-year medical students and for fourth-year students as part of their Ambulatory Medicine Clerkship. We also teach epidemiologic methods to first-year medical students.

- **Housestaff.** Our staff delivers periodic seminars and lectures for the housestaff (interns and residents). Residents also rotate through the Preventive Cardiology outpatient sessions.

- **Fellows.** Our faculty serves as mentors for many fellows, teaching the art of Preventive Cardiology. Dozens of fellows and residents have been involved in our research activities, and have worked with Drs. Peter Kwiterovich, Jr. (Director, University Lipid Clinic), Elizabeth Ratchford (Director, The Johns Hopkins Center for Vascular Medicine), and Sherita Golden (Diabetes Center) during the Preventive Cardiology rotation. Drs. Gerstenblith and McLean attend in the Coronary Care Unit, while Drs. Michos, Bhatia, and Post attend in the Echocardiography Laboratory. Drs. Jones, Bhatia, Michos, and Blumenthal also attend on the Cardiology Consult service.

- **Public Health/Nursing Students.** Our faculty give several lectures in the Bloomberg School of Public Health, highlighting the large impact of cardiovascular disease on society. Dr. Ashen also teaches courses for undergraduate nursing, nurse practitioner students, and students of the Doctorate of Nursing Practice program.

- **The Medical Community.**
  - **Grand Rounds:** The physicians of the Ciccarone Center discuss patient care at medical, cardiology, and other departmental grand rounds at Johns Hopkins.
  - **Research developed by the members of the Center is presented at national meetings, such as the American Heart Association's, American College of Cardiology's, and American Diabetes Association's scientific sessions.**

Additionally, our faculty serves as medical experts and guest lecturers at other major medical centers and organizations.

- **Dr. Blumenthal** is an official national spokesman of the American Heart Association. He was chairman of the American College of Cardiology’s Committee on Prevention of Cardiovascular Disease for four years.

- **Drs. Blumenthal and Golden** are on the medical advisory board of the foundation Sister to Sister — Everyone Has a Heart, which was created by long-term Hopkins benefactor Irene Pollin. It is dedicated to educating women about ways to lower their risk of heart disease.
• Dr. Blumenthal is the medical editor of the quarterly Johns Hopkins Heart Bulletin. Drs. Blumenthal and Margolis are the authors of the annual Johns Hopkins White Paper on Prevention of Heart Attacks, while Drs. Gerstenblith and Margolis are the editors of the annual Johns Hopkins White Paper on Coronary Artery Disease.

• Dr. Blumenthal is the editor-in-chief of a new textbook entitled Prevention of Cardiovascular Disease. It is an official companion text to the famous Braunwald's Heart Disease textbook.

• Drs. Ashen and Jones are leading the Ciccarone Center Community Outreach Program, which is designed to bring “The ABC’s of Prevention of Heart Disease” to the community. She is working in conjunction with Johns Hopkins Health Care in the screening of Hopkins employees and education of their case managers, and The Be Fit Baltimore Program developed by Mayor Sheila Dixon to educate inner city residents about the benefits of heart disease prevention, a healthy diet, and regular exercise.

• Baltimore American Indian Center and the Johns Hopkins Student Outreach Resource Center on a blood pressure screening program for American Indians.

Research on All Levels
One of the primary missions of the Ciccarone Center for the Prevention of Heart Disease is research, which is carried out at both the clinical and basic research levels. All of our physicians and nurses have been active investigators (clinical and/or basic research) in one or more of the following fields, over the past 20 years:
- hypertension
- familial-clustered coronary disease
- hyperlipidemia
- sudden cardiac death
- diabetes
- thrombosis
- accelerated atherosclerosis
- genetics of cardiovascular disease
- peripheral arterial disease
- estrogen or other hormonal therapy
- non-invasive cardiovascular imaging

Clinical Research
The investigators of the Ciccarone Center for the Prevention of Heart Disease have been pursuing a variety of important projects for two decades.

Women and Heart Disease
• Dr. Blumenthal was an investigator in the first randomized placebo-controlled clinical trial of hormone therapy (Heart Estrogen/progestin Replacement Study — HERS) on cardiovascular outcomes. The seven-year follow-up results were published in JAMA.

• Dr. Post demonstrated that people with coronary disease have a greater degree of methylation (modification of the estrogen receptor gene), leading to a decrease in the number of functioning estrogen receptors in their blood vessels. This may lead to an inability to respond to estrogen’s potential anti-atherosclerotic and vasodilator effects. These results were published in Cardiovascular Research and helped to elucidate some of the surprising HERS trial results.
• **Drs. Pamela Ouyang, Blumenthal, and Post** were investigators on two large NIH-sponsored studies looking at the effects of estrogen therapy, with or without antioxidants, on coronary disease progression in women. The EAGAR trial focused on women who have had heart bypass surgery. The main results of the WAVE trial were published in *JAMA*.

• **Drs. Michos and Ouyang** wrote a comprehensive review on the effects of hormone replacement therapy on cardiovascular disease that was published in the *Journal of American College of Cardiology*. Dr. Michos was a co-author of the AHA Cardiovascular Disease Prevention Guidelines for Women that was published in *Circulation*. **Drs. Golden and Ouyang** are working on an NHLBI funded cohort study to examine the association between endogenous sex hormones and atherosclerosis in postmenopausal women.

• **Drs. Michos, Nasir, and Blumenthal** wrote a series of papers in the *Journal of American College of Cardiology, Atherosclerosis, JAMA, Circulation, Archives of Internal Medicine,* and *American Heart Journal* showing that traditional risk factors are not adequate to predict cardiovascular disease risk in many asymptomatic women with either the metabolic syndrome or a family history of heart disease. Dr. Michos has also become a leading expert on the impact of Vitamin D supplementation and cardiovascular risk in women.

**Subclinical Atherosclerosis**

• **Drs. Post and Blumenthal** have worked with Drs. Joao Lima and Moyses Szkllo to investigate the role of non-invasive cardiovascular imaging (carotid ultrasound, cardiac CT, and MRI) in identifying high-risk men and women before they develop symptoms of coronary heart disease. Women and minorities are highlighted in this multicenter effort, which focuses on the detection of subclinical atherosclerosis in asymptomatic adults.

• This landmark multicenter NHLBI observational epidemiological trial is known as the Multi-Ethnic Study of Atherosclerosis (MESA). **Dr. Post** is the Principal Investigator for the Hopkins field center. She is also leading the Hopkins component of the MESA Family Study, which recruited siblings of the original MESA cohort in order to perform linkage and candidate gene analyses evaluating the genetics of subclinical atherosclerotic disease.

• **Drs. Blumenthal** and **Post** were part of the American College of Cardiology Bethesda Conference on the roles of atherosclerosis imaging for clinical and research purposes. The proceedings of this conference were published in the *Journal of the American College of Cardiology*. Dr. Blumenthal was also part of the AHA’s expert writing group on cardiac CT.
The investigators of the Ciccarone Center are pursuing a variety of important projects. Dr. Gerstenblith, for example, is principal investigator on a project that is non-invasively characterizing vascular age and atherosclerotic burden in individuals with “successful” aging.

- **Dr. Post** was a member of the American College of Cardiology’s writing group on the utility of cardiac CT in risk stratification. She was also a member of the writing group for the American Society of Echocardiography on “Best Practice Guidelines for Carotid Intima Media Thickness (IMT).” Dr. Post was also lead author of a paper that was published in *Circulation* that focuses on the risk factors and heritability of aortic and coronary artery calcification.

- **Drs. Michos** and **Nasir** have systematically analyzed several large databases of subclinical atherosclerosis imaging that the Ciccarone Center utilizes to better understand the relationship of risk factors to the development of cardiac events. The major focus has been to elucidate the role of family history, physical activity, overweight status, and fasting blood glucose for better identification of high-risk individuals for future CHD events.

- **Drs. Gerstenblith, Najjar, Post, Ashen, and Blumenthal** received funding from the NIH to study successful vascular aging. Basic experimental and observational data demonstrate that aging magnifies the pathologic and clinical consequences of established risk factors. Aging is the most potent individual risk factor for coronary disease and for adverse outcomes following an ischemic event. Normal aging alters the vascular substrate to promote the development and progression of atherosclerosis.

- **Dr. Gerstenblith** is the principal investigator of the “Vascular Aging: The Link That Bridges Age to Atherosclerosis” project that is non-invasively characterizing vascular age and atherosclerotic burden in individuals with “successful” aging, i.e. those with no or minimal evidence of coronary disease, and those with premature, clinically evident CAD. Measures of atherosclerotic burden are being performed three years after the initial assessment. This contract with the Baltimore Longitudinal Study of Aging tests the hypothesis that vascular age is an important determinant of the age-associated increase in vascular disease. It utilizes the techniques of contrast-enhanced magnetic resonance imaging and multidetector CT of the coronary arteries.

- **Dr. Post** is the principal investigator of an NIH-sponsored study that will determine if there is a difference in the prevalence and progression of subclinical cardiovascular disease between HIV positive and negative men. The investigators will study whether metabolic, inflammatory, and immunologic markers potentially associated with HIV infection and/or its medical treatment are also associated with the presence and progression of atherosclerosis. This study is utilizing CT angiography of the coronary arteries, longitudinal changes in coronary artery calcium and carotid intimal medial thickness, blood assays, and CT imaging of adiposity.
Familial-Clustered Heart Disease and Management of Coronary Risk Factors

- We have published many important articles on familial-clustered coronary disease. One paper in *Circulation* found that siblings of persons with premature CHD have a nearly 4-fold greater risk of advanced coronary calcification (subclinical atherosclerosis) as compared to those without a family history of premature CHD.

- Adults with a parental history of premature CHD have a 2-fold greater risk of having advanced coronary calcification. 
  
  **Drs. Nasir and Blumenthal** subsequently published another paper in *Circulation* demonstrating that family history of premature CHD has important prognostic significance in multiple ethnic groups.

- **Drs. Gluckman, Ashen, and Blumenthal** published a comprehensive review in the *Archives of Internal Medicine* entitled “A Practical and Evidence-Based Approach to Cardiovascular Disease Risk Reduction.” Subsequently, Drs. Gluckman and Blumenthal published a seminal paper in *JAMA* about a novel and comprehensive “ABCDE” approach to the management of patients with acute coronary syndromes.

  **Drs. Blaha, DeFilippis, Golden, and Blumenthal** later extended this ABCDE approach to those individuals with the metabolic syndrome and published their paper in *Mayo Clinic Proceedings*. 
  
  **Drs. Ashen, Musunuru, and Blumenthal** have worked with the national American College of Cardiology on a new initiative regarding management of persons with diabetes using this ABCDE approach.

- **Drs. Samia Mora and Blumenthal** have studied ways to improve the predictive value of exercise stress testing by looking at a variety of parameters such as exercise-induced arrhythmias and measures of parasympathetic nervous system function. Some of their important work was published in *JAMA* and in *Circulation*.

- **Drs. Ndumele and Blaha** are very interested in the role of obesity and hepatic steatosis in promoting inflammation and atherosclerosis. They are interested in learning more about the role of inflammation in the development of future atherosclerotic vascular disease. 
  
  **Drs. Musunuru, Campbell, and Blumenthal** (in conjunction with investigators from other major institutions) published a superb review of the role of C-reactive protein in improving cardiovascular risk prediction.

- **Drs. Ryan Tedford, DeFilippis, Campbell, Gluckman, and Blumenthal** have led the Ciccarone Center efforts to develop a comprehensive teaching slide kit that can now be found on the American College of Cardiology and the Hopkins Cardiology and Internal Medicine Web sites summarizing the optimal management of all cardiovascular risk factors based on the current AHA and ACC guidelines.

- **Drs. Ashen, DeFilippis, and Blumenthal** are working with Dr. Vered Stearns to evaluate cardiovascular risk and the development of atherosclerotic vascular disease in women with breast cancer who are being treated with exemestane or letrozole. They are evaluating the predictive value of several risk prediction tools to determine which one is more clinically useful. They recently presented intriguing findings about the cardiovascular disease risk in breast cancer survivors.
Prevention of Thrombosis

• Exciting data on the first inherited platelet thrombogenic risk factor associated with premature coronary disease were published by Drs. Goldschmidt, Paul Bray, and Ethan Weiss in the *New England Journal of Medicine* and in the *Lancet*. The famous Olympic skater Sergei Grinkov had this genetic variant (the PlA-2 allele), which is now termed the “Grinkov factor.” Individuals with this platelet polymorphism are more likely to form blood clots and develop premature atherosclerosis.

• Drs. Braunstein, Post, Gerstenblith, and Blumenthal wrote a comprehensive review in *CHEST* on the topic of genetic polymorphisms for thrombosis and their possible interaction with estrogen therapy. Drs. Michos and Blumenthal also published a superb review on aspirin and clopidogrel resistance.

• Dr. DeFilippis is working with Drs. Steven Schulman and Jeff Rade to better differentiate between myocardial ischemia due to coronary thrombosis from that of other causes. Their study is evaluating the efficacy of urine thromboxane B2, a stable metabolite of thromboxane, as a noninvasive diagnostic test for coronary thrombosis identified on coronary angiography. They are also looking at associations between the degree of platelet activation, inflammation, oxidative stress and omega-3 fatty acid stores.

Management of Hypertension

• Drs. Post and Blumenthal, along with Drs. Cheryl Dennison and Martha Hill, investigated the efficacy of an innovative hypertension control program. They found that an educational, behavioral, and pharmacologic program could improve hypertension control and decrease cardiovascular morbidity in men.

• This inner city population has high rates of heart disease and medical non-compliance. This study also evaluated the effects of angiotensin receptor blocker-based medical regimens on the ability to reduce the left ventricular hypertrophy associated with hypertension. Changes in vascular stiffness due to better blood pressure control, as well as neurohormonal and genetic components of hypertension, were studied. The principal results were published in the *American Journal of Hypertension* and the *Journal of Clinical Hypertension*.

Management of Hyperlipidemia/ Diabetes

• We have been engaged in numerous studies investigating the optimal treatment of patients with an abnormal cholesterol profile, such as the Treating to New Targets (TNT) trial, which was designed to determine the optimal dose of cholesterol lowering drugs. The results of this landmark trial were published in the *New England Journal of Medicine*.

• Dr. Kwiterovich and colleagues looked at the clinical effects of rosuvastatin in persons with elevated levels of hs-CRP but average lipid levels (JUPITER trial) and these data were published in the *New England Journal of Medicine*. Drs. Kwiterovich and DeFilippis have led the Hopkins field center of the AIM-HIGH trial, which is evaluating the addition of extended release niacin to aggressive statin +/- ezetimibe therapy in persons with coronary heart disease and the metabolic syndrome.
Our group’s investigative work on the prognostic importance of non-HDL-cholesterol and triglycerides, which was published in the *Archives of Internal Medicine*, served as a key part of the evidence for the national guidelines on lipid management that dealt with non-HDL-cholesterol.

**Drs. Kwiterovich** and **Blumenthal**, along with **Drs. James Mudd, Peter Johnston**, and **Rosann Rouf**, published a featured state-of-the-art review on the role of LDL heterogeneity in the *Journal of the American College of Cardiology*.

**Drs. Blaha** and **Blumenthal** also published an important review on non-HDL cholesterol reporting in optimize lipid management. In addition, **Drs. Rivera, Campbell, Nasir**, and **Blumenthal** have published several papers relating plasma lipoprotein levels to low-grade inflammation and subclinical atherosclerosis. **Dr. Jones** has also done very interesting work on advanced lipoprotein testing and emerging risk factors for vascular disease.

**Drs. Blumenthal** and **Michos** published a featured commentary on the best choices for lipid lowering therapy after a statin is used in the *New England Journal of Medicine*.

**Dr. Golden** is an endocrinologist with extensive training in epidemiology. Her research goals are: (1) to identify endocrine risk factors for the development of diabetes and cardiovascular disease through epidemiologic analyses; (2) to determine appropriate molecular field measures of hormonal activity; and (3) to incorporate measures of hormonal function into cohort studies and clinical trials of diabetes and cardiovascular disease. Her research has focused on the hormones of the hypothalamic-pituitary-gonadal axis (sex hormones) and the hormones of the hypothalamic-pituitary-adrenal axis (cortisol).

**Dr. Golden** has collaborated with **Dr. Ouyang** as a co-investigator on the MESA Sex Hormone Ancillary Study. This has resulted in publications that examined the association between endogenous sex hormones with diabetes, lipids, and atherosclerosis. Her current research focuses on studying the neuroendocrine response to chronic psychological stress as a risk factor for diabetes and cardiovascular disease. She has published several papers examining the association between depression and type 2 diabetes, including one in *JAMA*.

**Dr. Golden** currently serves on the Diabetes Committee of the Council on Nutrition, Physical Activity, and Metabolism for the AHA. She also serves as Director of the Inpatient Diabetes Management Service and as Chairperson of the Glucose Management Committee for Johns Hopkins Hospital. In 2009, she served on the National Institute of Diabetes, Digestive and Kidney Diseases, Diabetes Research Strategic Plan Diabetes Complications Subgroup. She focused on the areas of depression and cognitive disorders as complications of diabetes.

**Drs. Ashen** and **Blumenthal** have published state-of-the-art reviews on HDL-cholesterol in the *New England Journal of Medicine* and in *Preventive Cardiology*. **Drs. Ashen, Mudd, and Blumenthal**, along with **Dr. Navin Kapur** published a comprehensive book chapter on management and treatment of low HDL-cholesterol and reverse cholesterol transport in *Topol’s Textbook of Cardiovascular Medicine*.

**Drs. Christian Nagy, Campbell**, and **Blumenthal** recently published a superb chapter on “Dyslipidemia & Atherosclerosis in Women” in the new *Johns Hopkins University Textbook of Dyslipidemia*, whose editor is **Dr. Kwiterovich**. **Dr. Golden** also wrote an outstanding chapter on the “Pathophysiology of Diabetic Dyslipidemia” for that textbook.
Peripheral Arterial Disease

- **Dr. Ratchford** is the local principal investigator for the CLEVER trial (Claudication: Exercise Versus Endoluminal Revascularization), a prospective, multicenter, randomized controlled clinical trial sponsored by the NIH/NHLBI. This trial evaluates the relative efficacy, safety, and health economic impact of different treatment strategies for people with aortoiliac disease and claudication.

- Dr. Ratchford's research interest focuses on supervised exercise training for improving quality of life and reducing cardiovascular risk among patients with peripheral arterial disease and claudication. **Dr. Maya Salameh** and **Dr. Ratchford** recently published a book chapter entitled “Update on peripheral arterial disease and claudication rehabilitation” in *Physical Medicine and Rehabilitation Clinics of North America*.

Basic Science and Genetic Research

- The Ciccarone Center has developed a variety of basic research experiments involving molecular biology, biochemistry, and cell biology. These projects are directly relevant to the clinical investigations that are being pursued by the Ciccarone Center. The information generated by these projects will hopefully allow us to design new strategies for more efficient prevention of atherosclerosis and its complications.

- **Dr. Lowenstein**’s lab discovered a key step that triggers inflammation of blood vessels, the first step in the process of atherosclerosis, eventually leading to heart attacks and strokes. This work was published in the journal *Cell*. **Dr. Lowenstein** then developed novel peptide drugs that fight vascular inflammation and blood clots; when injected into mice, these peptides block thrombosis. These inventions were published in *Molecular Pharmacology*. Dr. Lowenstein used these peptides to decrease the size of heart attacks in mice; this work was published in *Circulation Research*.

- The current plan is to test these peptides in large animal models of heart attack before bringing them to the clinic for human trials. Research funded by the Ciccarone Center and its generous supporters may eventually help us to develop a new generation of drugs to treat heart attacks and strokes in our patients.

- **Dr. Post** has a strong interest in the genetic basis of heart disease. She is collaborating with **Drs. Aravinda Chakravarti** and **Gordon Tomaselli** on the Reynolds Foundation Center grant looking at genetic predictors of sudden cardiac death. Dr. Post is evaluating predictors of sudden cardiac death in large population based studies from an epidemiologic and genetic point of view.

- Using a novel genetic technology called genome wide association analysis, their group discovered that a gene involved in regulation of neuronal nitric oxide synthase (NOS1AP) is associated with cardiac repolarization as measured by the QT interval on the ECG. This work was published in *Nature Genetics* and later validated in the Amish population published in *Human Heredity*.

- **Dr. Post** is collaborating with **Drs. Alan Shuldiner** and **Braxton Mitchell** at the University of Maryland on predictors of successful aging in the Amish population. They are evaluating the phenotypes and genotypes associated with longevity. Dr. Post is employing assessment of coronary artery calcification, carotid IMT, and measures of vascular stiffness. She was awarded the Paul Beeson Physician Faculty Scholars in Aging Research Award from the American Foundation for Aging Research.

A complete list of articles published in leading peer-reviewed publications in 2008-09 by the investigators of the Ciccarone Center may be found in a separate supplement to this annual update.
Benefits and Awards

Over the past two decades, the Ciccarone Center has established several public outreach events and awards to increase its visibility on the local and national level, as well as to honor the efforts and generosity of its many supporters.

Heartfest
Initiated in 1990 by Edward Speno, the Ciccarone Center’s Executive Director, along with Dr. Blumenthal, Joe Ciletti, and David Schroeder, the annual “Heartfest” fundraiser, which combines a wine tasting and a showcase for the latest in heart-healthy cuisine prepared and served by some of Maryland’s most acclaimed chefs, is intended to increase the visibility of the Center and its message. Over the past 20 years, Heartfest has annually attracted more than 1,200 guests and raised more than $1.5 million dollars.

Past honorees include Dr. Martha Hill (Past President of the American Heart Association), Tommy Lasorda (member of the Baseball Hall of Fame), sportscaster Jim McKay, Earl Woods, Dr. William Castelli, Dr. Simeon Margolis, Debbie Allen, Nancy Grasmick, Dr. Myron Weisfeldt, Dr. Levi Watkins, Jr., Harry Belafonte, NFL star Dan Reeves, Drs. Lew and Diane Becker, Drs. James and Susan Weiss, Tom Matte, Supremes co-founder and AHA spokesperson Mary Wilson, Dr. Bernadine Healy, Steve Geppi, entertainer/AHA spokesperson Vicki Lawrence, NIH director Dr. Elias Zerhouni, Lou Grasmick, actress/AHA spokesperson Valerie Harper, Dr. Vince Gott, Liz and Tim Rhode, actor/AHA spokesperson Henry Winkler, Dr. Victor McKusick, actor/producer/director John Astin, Hopkins supporters Joe and Ozzie Cowan, Drs. Stephen Achuff, Lawrence Griffith, and creators of the Sister to Sister program Irene and Abe Pollin.

The 2008 honorees were Drs. Eric Topol and Peter Kwiterovich, Jr., Brady Vontron, and Drs. Steve Valenti and Lowell Maughan. Although we did not hold Heartfest in 2009, we do plan to celebrate the 20th anniversary of the first Heartfest in the future.

The Heartfest events and the Ciccarone Center research program, which attract attention on both the local and national levels, could never happen without the very generous philanthropic support of many individuals and organizations, including:

- Nicholas and Suellen Paleologos, parents of former star Blue Jay lacrosse defenseman John Paleologos (#44)
- Harteveldt–Gomprecht Foundation led by Irvin and Ginger Gomprecht

Clockwise from top: Joe Ciletti and Dave Schroeder; Jaime latesta, Valerie Harper; and a fellow reveler; and 2004 honoree Dr. Martha Hill.
Benefits and Awards

The Maryland Athletic Club & Wellness Center and its owners Tim and Liz Rhode

Irene Pollin and the Sister to Sister — Everyone Has a Heart Foundation

Charles and Sandra Zeiler

Joseph and Ozzie Cowan, two of Henry Ciccarone’s closest friends and loyal supporters of our efforts since 1989

Blumenthal Research Awards

Since 2004, the annual Stanley L. Blumenthal, MD, Preventive Cardiology Scholar Research Awards have been presented to the Hopkins postdoctoral fellow, graduate student, or resident submitting the best abstracts to the American Heart Association or American College of Cardiology Scientific Sessions. The recipients for 2009 are Dr. Chiadi Ndumele, Dr. Dou Alvin Zhang, and Dr. Valeriani Bead.

Following are the prior recipients of the Blumenthal awards:

2008

Clinical Science Award: Juan J. Rivera, MD. “Traditional Risk Factors & Coronary Plaque Composition Assessed by Noninvasive CT Angiography in Asymptomatic Individuals”

Translational Science Award: Michael Bonios, MD. “Myocardial Substrate Determines Acute Cardiac Retention and Lung Biodistribution of Intramyocardially Injected Cardiac — Derived Stem Cells — A PET/CT Experimental Study”

Basic Science Award: Mikhail Maslov, MD. “Augmented Creatine Kinase Expression Attenuates the Decline in In Vivo Energetics and Contractile Function in Pressure-Overload Hearts”

2007

Clinical Science Award: Lois Nwakanma, MD. “Reversible Pulmonary Hypertension Has Comparable Survival — Analysis of 10,331 Heart Transplant Recipients in Recent Era”


Basic Science Award: Norimichi Koitabashi, MD. “Sildenafil (Viagra) Suppresses Cardiac Hypertrophy Through Inhibition of Canonical Transient Receptor Potential Cation Channel 6 Expression in Cardiac Myocytes”

2006

Clinical Science Award: Brian G. Kral, MD. “A High Level of High Density Lipoprotein Cholesterol Does Not Protect Against Incident Coronary Artery Disease in Families with Premature Coronary Disease”

Translational Science Award: Richard T. George, MD. “Combined Computed Tomography Coronary Angiography and Perfusion Imaging Accurately Detects the Physiologic Significance of Coronary Stenoses in Patients with Chest Pain”

Basic Science Award: Peter Johnston, MD. “Isolation, Expansion, and Delivery of Cardiac Derived Stem Cells in a Porcine Model of Myocardial Infarction”

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A Lifelong Supporter

Stanley L. Blumenthal, MD (1919-2003), was a staunch supporter of Johns Hopkins Preventive Cardiology. Dr. Blumenthal was elected Phi Beta Kappa at Johns Hopkins University and graduated in just 3 years. He attended medical school and completed his pediatrics internship at Johns Hopkins and did residency training at the University of Michigan and a Pediatrics Cardiology fellowship at Harvard’s Boston Children’s Hospital.

Dr. Blumenthal served as a Captain and Senior Army Medical Officer in Japan and then in Korea from 1944-1946. He was assigned to the 1st Marine Division during the invasion of Okinawa and served as Physician in Charge for several civilian camps; he also played a major role in establishing civilian hospitals. Subsequently, he served in the Department of Public Health and Welfare in the U.S. Military Government in Korea and was in charge of all civilian hospitals and medical personnel in Korea.

Upon his return to the U.S., Dr. Blumenthal served on the Pediatrics faculty at Hopkins Hospital and eventually joined the medical staff at the National Children’s Medical Center in Washington, D.C. He was in the private practice of Pediatrics in Montgomery County for 40 years, where he took care of two generations of families. He also served on the faculty at Georgetown and George Washington Medical Schools.

He married Anita Monfred in 1956 and raised a son, Roger, who in addition to following in his father’s footsteps as a physician also attended Johns Hopkins, becoming an avid golfer and sports fan. The three Blumenthals attended the majority of Hopkins lacrosse games together over a period of 40 years. Dr. Stanley Blumenthal died of a cardiac arrest secondary to complications of myeloma treatment.

More than $85,000 has been raised to help endow Stanley L. Blumenthal, MD Preventive Cardiology Scholar Research Awards to support the recipient’s ongoing research. This award also promotes collaborative research between the various divisions of the Department of Medicine, Lipid Research Laboratory, and School of Public Health in the field of Prevention.
2005

**Clinical Science Award:** Vojtech Melenovsky, MD, “Atrial Dilation/Dysfunction: A Defining Feature of Heart Failure with Normal Ejection Fraction”

**Translational Science Award:** Navin Kapur, MD, “Modulation of Atrial Thrombosis in vivo by Local Overexpression of Thrombomodulin in Acute Heart Failure”

**Basic Science Award:** Heel Cheol Cho, MD, “Conversion of Non-Excitable Cells to Self-Contained Biological Pacemakers”

2004

**Clinical Science Award:** Veronica Fernandes, MD, “Increased Carotid Intima-Media Thickness Is Associated with Regional Myocardial Dysfunction Detected by Tagged MRI in Asymptomatic Individuals: MESA”

**Translational Science Award:** Craig Smith, MD, “Reduced ATP Synthesis Through Creatinine Kinase in Failing and Non-Failing Hypertrophied Human Myocardium”

**Basic Science Award:** Kan Kikuchi, MD, “Targeted Modification of Atrial Electrophysiology by Homogenous Transmural Atrial Gene Defect”

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**P.J. Schafer Cardiovascular Research Grants**

The annual P.J. Schafer Memorial Golf Tournaments raise over $30,000 each year to fund the efforts of talented clinical investigators seeking a better understanding of how to diagnose premature heart disease and prevent sudden cardiac death. The P.J. Schafer Cardiovascular Research Grants for 2008-2009 were jointly awarded to Drs. Richard George and Saman Nazarian.

Dr. George is pursuing novel research using cardiac computed tomographic angiography to assess coronary artery dimension and coronary blood flow. Dr. Nazarian's research is employing innovative cardiovascular MRI techniques to better understand the pathogenesis of abnormal heart rhythms and how to prevent fatal arrhythmias.

The initial recipient of this prestigious award was Dr. Erin Michos.

The family and friends of Paul (P.J.) Schafer III started the tournaments in his honor after he died of sudden cardiac death on March 23, 2003.
Clinician, Educator, Friend: A Tribute to Ken Baughman, MD
By Roger S. Blumenthal, MD

In Memoriam

The Hopkins cardiology community was turned upside down this past November when we learned that Dr. Kenneth L. Baughman was taken from us. Dr. Baughman, who seemed indestructible and always appeared to be a step ahead of his colleagues, died after being struck by a car while jogging in the early morning, just before the second day of the annual AHA Scientific Sessions in Orlando.

Dr. Baughman was truly an outstanding person. He was a doctor's doctor, a superb clinical researcher and educator, and a remarkable physician. He was recognized internationally for his contributions to the field of heart failure and cardiomyopathy. But most people in the cardiovascular world knew Ken as a teacher.

Although he recently served as Professor of Medicine at Harvard Medical School and Director of the Advanced Heart Disease Section at Brigham and Women's Hospital, he honed his clinical skills as an assistant Chief of Service (Chief Resident) on the Osler Medical Service.

Ken joined the faculty at Hopkins in 1979 and he was the real face of Hopkins Cardiology in the 1980s and '90s. He served as Director of Cardiology for nine years and played a major role in expanding clinical research. He recruited an excellent group of academic cardiologists, who were proud to have had him as their leader.

He fought for the faculty and expected a great deal from us. As a Hopkins resident, I debated whether to go into cardiology or GI. I had the chance to work with a number of dynamic cardiologists. However, it was a month-long block on the Cardiology Consultation service with Ken Baughman that solidified cardiology as my career path.

He was a skilled instructor, well-versed in all areas of medicine, and he taught us not only how to examine patients but how to treat them, as well. Ken could have a gruff exterior at times — many would describe him as a straight shooter — and he told patients the truth: that they would need a new doctor, for instance, if they continued to smoke.

Ken also had a soft and very compassionate side. I remember when a patient with a dilated cardiomyopathy was suspected of having HIV. When we finally got the blood test back, Ken refused to put on a gown or mask or gloves. He needed to talk frankly to our patient about the diagnosis and its implications. His manner in breaking disheartening news to patients was something that I will always remember.

Ken Baughman proved to me that one could be a busy clinician and teacher and still build a clinical research enterprise. He helped steer my career path, urging me to explore several aspects of atherosclerotic vascular disease as my prime interests and encouraging me to select residents and fellows to work with on state-of-the-art reviews and clinical research papers in these areas.

Ken was instrumental in the development of The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease. It was through his hard work that we were able to create a satellite facility at the Maryland Athletic Club and Wellness Center, where we worked closely with a cardiac CT facility, clinical exercise program, and a cardiac rehabilitation center.

Preventive cardiology has thrived at Hopkins for the past decade thanks in large part to Ken.

Most important, Ken reminded me on a regular basis that Coach Ciccarone won three straight national titles because of his superbly chosen coaching staff. He encouraged me to be the coach and general manager of the Ciccarone Center's efforts and make a real impact on cardiovascular medicine.

When springtime rolls around, I hope and pray that my father, Dr. Stanley L. Blumenthal, Coach Ciccarone, and Ken, my great friend, mentor, and leader, will get together in heaven to watch my 10-year-old son Ross compete on the lacrosse fields, or will join up in the best luxury skybox at Homewood Field to watch their beloved Blue Jays. My how I miss them all so very much.
The Ciccarone Center for the Prevention of Heart Disease was founded in 1989 in memory of Henry A. “Chic” Ciccarone, a legendary athlete and lacrosse coach at Johns Hopkins who died at age 50 after his third heart attack.

But he was more than that. In the way he led his teams and his life, Chic embodied all that Johns Hopkins itself represents: dedication, excellence, leadership.

With intense, energetic competitiveness, pride, and engaging, infectious humor, Chic compiled an extraordinary record of achievements in athletics. As a three-time All-American midfielder and team captain, he won nearly every major Hopkins lacrosse award and was named to the All-Time Hopkins lacrosse team upon his graduation in 1962.

In 1989, the friends and former players of Coach Ciccarone began raising funds for the development of a comprehensive program geared toward the prevention of coronary heart disease events. The Ciccarone Center sought to unite the proud traditions of Hopkins lacrosse and Hopkins Medicine.

We all have a stake in winning the battle against heart disease. By joining the team at the Ciccarone Center, by sharing our enthusiasm and dedication to it, your support of coronary disease prevention will protect your life and the lives of those you love.
How to Contact the Center

We see patients Monday through Friday at the Johns Hopkins Ciccarone Center at Green Spring Station and on Mondays at the Johns Hopkins Outpatient Center. Drs. Michos and Bhatia also see patients at Odenton. At each location we can perform exercise stress tests, treadmill stress echo tests, echo Doppler tests, EKG’s, Holter monitors and refer patients for cardiac CT scans. Vascular ultrasound testing and consultations are available in White Marsh, Columbia, Odenton, and at Green Spring Station.

Appointments at the Johns Hopkins Ciccarone Center at Green Spring Station location can be scheduled at 410-308-7170. (Drs. Blumenthal, Post, Zieman, Ashen, Ratchford)

Appointments at the Johns Hopkins Outpatient Center can be scheduled at 410-955-3116 or 410-955-7376. (Drs. Jones, Blumenthal, and Blaha)

Appointments at the Johns Hopkins Cardiology Center at Odenton can be scheduled at 410-874-1520. (Drs. Michos, Bhatia, and Ratchford)

Appointments for Vascular Medicine consultations or vascular ultrasound testing can also be scheduled through Dr. Ratchford’s office at 410-616-7225.