The staff members and fellows of the Johns Hopkins Ciccarone Center for the Prevention of Heart Disease include:

(Top row, left to right) Haitham Ahmed, MD; Nivee Amin, MD; Dominique Ashen, PhD, CRNP; Michael J. Blaha, MD; Roger S. Blumenthal, MD; Gary Gerstenblith, MD

(Second row) Sherita Golden, MD; Rani Hasan, MD; Aaron Horne, MD; Steve Hsu, MD; Steven Jones, MD; Parag H. Joshi, MD

(Third row) Kerunne Ketlogetswe, MD; Seth S. Martin, MD; J. William McEvoy, MD; Rhondalyn McLean, MD; Erin Michos, MD

(Fourth row) C. Michael Minder, MD; Evan Muse, MD; Khurram Nasir, MD; Chiadi Ndumele, MD; Wendy Post, MD

(Fifth row) Elizabeth Ratchford, MD; Jonathan Rubin, MD; Michael G. Silverman, MD; Van-Khue Thon, MD

(Sixth row) Rajesh Tota-Maharaj, MD; Seamus Whelton, MD

(Seventh row) Michelle Zikusoka, MD
Message from the Director

Highlights from Our ‘Year of Living Productively’

Twenty-five years ago, Henry Ciccarone died of sudden cardiac death at the age of 50. Through very generous philanthropy, the Johns Hopkins Ciccarone Center for the Prevention of Heart Disease has become one of the premier clinical research centers for preventive cardiology in the world. Coach Ciccarone has indeed inspired another great team of All-Americans.

The Ciccarone Center recently completed our 22nd year of service and it was yet again our most productive to date. For the third straight year, the 25-plus members of the Center co-authored more than 100 scientific publications in many of the leading cardiology and internal medicine journals. And, if that weren’t Herculean enough, our group delivered more than 30 abstract presentations of late-breaking research at the 2012 American Heart Association (AHA) and American College of Cardiology (ACC) scientific sessions.

Among the highlights of our “year of living productively” is a series of debates about the value of selective use of statin therapy in asymptomatic persons with multiple risk factors, involving members of the Ciccarone Center and some cardiology luminaries. I kicked things off in January by publishing a point-counterpoint article in the Wall Street Journal proposing that statins should not be reserved until after a patient suffers the possible catastrophic consequences of atherosclerotic vascular disease; my opponent, Rita Redberg, MD, wrote that statin therapy should be used only in a person who has had a cardiovascular event. Not surprising, the debate generated quite a bit of controversy and was picked up by many major media outlets, including Forbes and TheHeart.org.

In April, Drs. Michael Blaha, Khurram Nasir, and I debated two editors of the Archives of Internal Medicine about the data supporting selective use of statin therapy in an intermediate risk man, published in the Journal of the American Medical Association. A month later, Dr. C. Michael Minder led our group in publishing a state-of-the-art review in the American Journal of Medicine about the benefits of statin therapy in persons with multiple risk factors. When the question of statin-induced spikes in blood sugar became national news, Dr. Minder again led our group in writing an elegant rebuttal to some of the erroneous claims against the selective use of statin therapy in primary prevention. We made the key points that cardiovascular risk is a continuum in which those at elevated risk of events stand to benefit from early initiation of plaque-stabilizing, anti-atherosclerotic therapy. Our article, published in Clinical Cardiology, was officially endorsed by the American Society for Preventive Cardiology. Drs. Joshi and Jones also presented innovative research on the association of HDL cholesterol subclasses and cardiovascular events in African Americans at AHA.

To read more about these and our other important publications and presentations from the past year, please turn to page 7.

Of course, I would be remiss if I didn’t mention the scientists behind all this provocative science. Since the Ciccarone Center started more than two decades ago, we have produced many outstanding clinicians and clinical researchers who have gone on to become outstanding in their chosen fields. For example, our roster of distinguished alumni includes Drs. Joel Braunstein, Samia Mora, Ty Gluckman, Juan Rivera, Kiran Musunuru, Andrew DeFilippis, and Catherine Campbell, who have all assumed leadership roles in the national cardiology community at their respective institutions. In their place, Drs. Wendy Post, Gary Gerstenblith, and I have been fortunate to recruit Drs. Jones, Erin Michos, Rhondalyn McLean, and Chiadi N'duamele as full-time Hopkins faculty. And this year we are also very proud to announce that two of the most productive post-doctoral fellows in the history of Hopkins medicine have become attendings with our Ciccarone Center group: Khurram Nasir, MD, and Michael Blaha, MD.

Dr. Nasir came to the US after finishing medical school in Pakistan in 2001, where he first caught my attention as an inquisitive and dedicated graduate student pursuing a master of public health degree at the Johns Hopkins School of

[ continued ]
Public Health. I met Dr. Nasir after giving a cardiovascular epidemiology lecture and, since then, I have seen him evolve into a universally respected clinical researcher with a unique perspective on cardiovascular prevention, epidemiology, cardiac imaging, and clinical outcomes.

Through generous annual funding from Virginia Gomprecht and her late husband, Irv, Dr. Nasir’s academic productivity has been astounding and he has mentored dozens of medical students, residents, and fellows. His vision and determination to improve cardiovascular risk assessment has been instrumental in the growth and development of the Ciccarone Center’s clinical research program. Time and again he has championed our belief that the paradigm of current cardiovascular risk stratification strategies should be moving toward treatment based on detection of atherosclerotic disease rather than prediction by surrogate markers.

For instance, in a 2012 study published in Circulation Imaging that Drs. Nasir and Jonathan Rubin led, we showed that the majority of events (>75%) happened in only 25% of patients with very high atherosclerotic burden. However, among patients with multiple risk factors who are likely to meet criteria for statin therapy, those with no coronary artery calcium had a very low absolute event rate in intermediate term follow-up. On the other hand, one-fifth of those with no risk factors had significant subclinical coronary atherosclerosis and were actually at much higher cardiovascular risk. Our findings, which were also supported by a separate article in the very prestigious European Heart Journal that was led by Drs. Nasir and Rajesh Tota-Maharaj, challenge the exclusive use of traditional risk assessment algorithms that are dominated by chronicologic age for guiding the intensity of primary prevention therapies.

Dr. Blaha, another of our cardiovascular medicine rising stars, also strives to improve clinical outcomes by making major contributions to the fields of preventive cardiology and cardiovascular imaging. The data supporting selective use of atherosclerosis imaging to refine cardiovascular risk prediction are steadily mounting thanks in large part to the work that he and other Ciccarone Center investigators and collaborators are doing.

The past year has been an accolade-filled one for Dr. Blaha. In March, he received the outstanding Young Investigator Award from the Multi-Ethnic Study of Atherosclerosis senior investigators for his innovative research that was published in the Lancet. He was also named a Fellow-in-Training Rising Star at the ACC Scientific Sessions in March, and he won third place for his work at the Northwestern Cardiovascular Young Investigators’ Forum. Dr. Blaha has also been a member of both the AHA Statistics Committee and the AHA Fellow-in-Training and Early Career Committee.

Like Dr. Nasir, Dr. Blaha has consistently pursued sophisticated research in spite of the demanding schedules of residency and fellowship. His current interests include finding ways to improve the predictive value of the Agatston coronary calcium score by also taking into account the number of vessels that have calcified atherosclerotic plaques in them. With Drs. Tota-Maharaj and J. Bill McEvoy, Dr. Blaha wrote two distinct handbooks on the metabolic syndrome and, in his spare time(!), he writes a blog on preventing heart disease in the “Health Experts” section of Yahoo.com.

Dr. Blaha will be a full-time faculty member of the Ciccarone Center beginning in January 2013, and Dr. Nasir serves as an adjunct assistant professor of medicine at Johns Hopkins.

Finally, I am very excited to announce that we will once again hold our popular “Heartfest” fundraiser. This annual event, which was on hiatus for the past few years, will take place on the evening of Saturday, January 19, 2013, at Martin’s. As part of the festivities of Heartfest 20, we will be honoring our former Dean and CEO of Hopkins Medicine, Dr. Edward Miller, and his wife Lynne, as well as Jerome and Tammy Schnydman. The Schnydman were close friends of Coach Henry Ciccarone, and Jerome served the university for decades as Director of Admissions, Director of Alumni Relations, and special assistant to the University President and Secretary to the Board of Trustees.

Heartfest, a fun and important event for us, combines a wine tasting and a showcase for the latest in heart-healthy cuisine prepared and served by some of Maryland’s acclaimed chefs. It also features great music from the Heart Attackers, a great group of musicians that includes Ron Peterson, the hospital president, on drums, along with Drs. Duke Cameron, Lowell Maughan, Tom Aversano and Steve Valenti. For more information about Heartfest 20, please call (410) 560-0677.

Sincerely yours,

Roger S. Blumenthal, MD
Professor of Medicine/Cardiology
Director, Johns Hopkins Ciccarone Center for the Prevention of Heart Disease
This past year has been a momentous one for the Johns Hopkins Ciccarone Center for the Prevention of Heart Disease, in terms of accomplishing our goals and continuing our work in creating excellent clinical care, educating health care practitioners, and studying better ways to prevent heart disease. Following is a brief overview of some of what we achieved.

First, we’d like to offer congratulations and a hearty welcome to two of Hopkins Medicine’s most productive post-doctoral fellows, Khurram Nasir, MD, and Michael Blaha, MD, who have become attendings with our Ciccarone Center group. We are thrilled and honored to have them as members.

This past year, Drs. Kerunne Ketlogetswe and Michelle Zikusoka have begun pursuing innovative work in HIV-associated cardiovascular disease with Dr. Wendy Post on the Multicenter AIDS Cohort Study (MACS). The Ciccarone Center’s participation in the study is due in part to our successful collaboration with Dr. Josef Coresh, who directs the Cardiovascular Epidemiology Training Program in the Welch Center for Prevention, Epidemiology, and Clinical Research and the George W. Comstock Center for Public Health Research and Prevention at Johns Hopkins. Drs. Ketlogetswe’s and Zikusoka’s efforts are supported through Dr. Coresh’s NIH CVD Epidemiology Training Program, which allowed them to attend the Bloomberg School of Public Health. Dr. Coresh has mentored many of the Ciccarone Center trainees over the years including Drs. Kettlogetswe, Erin Michos, Juan Rivera, Chiadi Ndumele, Catherine Campbell, and Jonathan Rubin. He has also been instrumental in guiding several of our fellows to receive NIH training grant support. We are grateful to Dr. Coresh, Dr. Elizabeth Selvin and their staff and colleagues at the Welch Center for their support and mentorship, and we look forward to developing other relationship with the Welch Center and the Johns Hopkins Bloomberg School of Public Health in the coming years.

Congratulations also are in order for Chiadi Ndumele, MD, MHS, a staff member of the Ciccarone Center and an assistant professor in the department of cardiology at Johns Hopkins, who was recently selected to receive the Robert Meyerhoff Professorship. This distinguished award was established in 2007 for the recruitment and retention of rising minority faculty who have demonstrated excellence in their field of study and who have been identified as future leaders. Two assistant professorships are awarded every five years. An installation ceremony, which included a presentation by Mr. Meyerhoff and Hopkins Dean Paul B. Rothman, was held on October 4.

In addition to the more than 100 journal articles published over the past 12 months (see the side bar on page 4), members of the Ciccarone Center have been making headlines since the beginning of the year — literally. In January, for example, Roger Blumenthal, MD, engaged Rita Redberg, MD, in a debate about the value of selective use of statin therapy in asymptomatic persons with multiple risk factors that was published in the Wall Street Journal. That salvo was followed by a commentary from a panel led by Dr. Parag H. Joshi entitled “A Point-by-Point Response to Recent Arguments Against the Use of Statins in Primary Prevention,” published in Clinical Cardiology. In April, Drs. Blaha, Nasir, and Blumenthal debated two editors of the Archives of Internal Medicine about the data supporting selective use of statin therapy in an intermediate risk man in an article published in the Journal of the American Medical Association.
And, when the question of statin-induced increases in blood sugar became national news, one of our senior residents, C. Michael Minder, MD, published an elegant review of this topic for the American College of Cardiology website, Cardiosource.org.

This past year, Dr. Elizabeth Ratchford expanded the Ciccarone Center’s vascular laboratory services by including measurement of carotid intima-medial thickness (CIMT), a new non-invasive ultrasound test that can help screen for heart disease. Dr. Ratchford directs the Johns Hopkins Center for Vascular Medicine.

Continuing with our efforts at developing a multidisciplinary approach to vascular disease, the Ciccarone Center has partnered with Kevin L. Billups, MD, Director of the Hopkins Integrative Men’s Health Program. He has a strong interest in utilizing the presence of erectile dysfunction and testosterone deficiency as markers for early identification of men at increased risk of cardiovascular disease. Dr. Billups will see patients at the Center for Vascular Medicine, which is adjacent to the Ciccarone Center.

Also this past year, Drs. Dominique Ashen and Ratchford led the Ciccarone Center in a joint research study venture with the Center for Vascular Medicine to develop a cost-effective program for cardiovascular disease (CVD) risk assessment and risk reduction for firefighters without known CVD. Entitled “Prevention of Cardiovascular Disease in Operational Firefighters after 40,” and funded by the National Fallen Firefighters Foundation, this ongoing pilot study focuses on detection of subclinical atherosclerosis (CVD without symptoms) and primary prevention of CVD (avoiding its initial occurrence) in firefighters through risk assessment and risk reduction. The study includes CIMT measurement with Dr. Ratchford, as well as a coronary artery calcium scan and comprehensive lab tests. Firefighters then participate in a six-month comprehensive lifestyle-modification program with Dr. Ashen, who also educates them on the importance of a healthy diet, aerobic exercise, maintenance of a normal weight, and tobacco cessation.

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 fellows, graduate students, or residents submitting the best AHA or ACC scientific sessions to the American Heart Association or American College of Cardiology Scientific Sessions. Awards are bestowed following the division’s yearly cardiovascular research retreat.

First place in the ORAL COMPETITION went to Jonathan Kirk, PhD, for his presentation entitled “Cardiac Resynchronization Therapy Restores the Myofilament Response to Calcium via a Novel Mechanism.” The second place award was given to Seth Martin, MD, for “Bias in Friedewald Estimation of LDL Cholesterol in a Clinical Sample of 1.3 Million Adults.” Third place awards were presented jointly to Dong I. Lee, PhD, for his presentation “A Novel PDE9A Inhibitor (PF-9613) and PDE9A KO Mouse Reveal a Potential Role of PDE9A in Cardiac Hypertrophy and Function,” and to Deeptankar DeMazumder, MD, PhD, for “A Novel Strategy for Predicting Sudden Cardiac Death in Patients with Heart Failure Receiving Cardiac Resynchronization Therapy.”
First place for POSTER COMPETITION IN CLINICAL RESEARCH went to Mariana Lazo, MD, PhD, epidemiologist in the Bloomberg School, along with Hunter Young, MD, Frederick L. Brancati, MD, Josef Coresh, MD, Seamus Whelton, MD, Chiadi E. Ndumele, MD, MPH, Christie M. Ballantyne, MD, and Elizabeth Selvin, MD, for their presentation, “The Association between N-terminal pro-Brain Natriuretic Peptide with Incident Diabetes.”

Second place was awarded to Birju Patel, MPH, a medical student in cardiology, who, along with Michael Blaha, MD, and Steven Jones, MD, presented “Independent Effects of Risk Factors and Treatment Type on Subclinical Atherosclerosis: Carotid Intima-Media Thickness Progression in the Community.”

And Irfan Khurram, MD, along with Saman Nazarian, MD, and Hugh Calkins, MD, won third place for “Image Intensity Ratio, A Novel Magnetic Resonance-Based Measure for Quantification of Left Atrial Fibrosis, Correlates with the Distribution of Atrial Bipolar Voltage.”

First place in the POSTER COMPETITION IN BASIC SCIENCE RESEARCH went to Alice Ho, PhD, a graduate student in biomedical engineering, for her presentation, “The Mitochondrial ROMK Channel Is a Molecular Component of mitoKATP.” Her senior mentor was Brian O’Rourke, MD.

There was a tie for second place in the competition. The prize was shared by Viola Kooij, PhD (and co-authors Anthony Cammarato, MD, and Jennifer Van Eyk, MD), who won for the presentation, “Profilin-1, a Novel Mediator of Cardiac Contractility Dysfunction,” and by Guangshuo Zhu, MD, along with mentors David A. Kass, MD, and Eiki Takimoto, MD, among others, who were rewarded for their presentation “cGMP-PKG Upregulates PGC1alpha and Improves Cardiac Function in Advanced Cardiac Hypertrophy Independently of RGS2.”

Congratulations to all the participants and winners!

Staff Spotlight: Birju Patel, MPH

One of our younger team members, Birju Patel, is a fourth-year medical student at Johns Hopkins who recently earned a Master’s in Public Health. He hails from Texas but has been a part of the Hopkins family for almost a decade, having received his bachelor’s degree from our undergraduate campus where he studied physics.

Currently he’s most excited about using innovative approaches to analysis and data modeling to better predict cardiovascular disease risk and estimate how effective interventions are. In his spare time, he’s a self-proclaimed “policy wonk” (and an unabashed blog reader) and loves long-form investigative journalism.

Birju, with Drs. Blaha and Jones, will present their work on annual changes in carotid intima-media thickness, an ultrasound-based measure of subclinical atherosclerosis, achieved in a real-world clinical population, at the 2012 AHA Scientific Sessions. They found important trends in carotid atherosclerosis that developed within two to three years and may signal early changes in long-term risk of disease. They also made important observations on whether different lipid treatment strategies produced different trends, and to what extent these trends were mediated by changes in cholesterol levels.


P.J. Schaefer 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. Previous recipients of this prestigious award, which is given to a junior faculty member, include Rhondalyn McLean, MD, Erin Michos, MD, Richard George, MD, Saman Nazarian, MD, and Oscar Cingolani, MD.

The 2012-2013 grant was awarded to Chiadi Ndumele, MD, MHS, for his research on the relationship between obesity and cardiovascular disease. Specifically, Dr. Ndumele, who last year won a Stanley L. Blumenthal award for his presentation, “Apolipoproteins Do Not Add Predictive Value Beyond Cholesterol Measures Among Individuals With Obesity and Insulin Resistance Syndromes: The Atherosclerosis Risk in Communities (ARIC) Study,” wants to explore the ways fat build-up within the abdomen, heart, and liver affects a person’s risk of developing cardiovascular disease. The goal of his research is to better understand how obesity contributes to cardiovascular risk, and to provide the foundation for new strategies to prevent the development of cardiovascular disease.

After earning an undergraduate degree at Johns Hopkins, Dr. Ndumele completed medical school at Harvard University and served his residency and chief residency in Internal Medicine at Brigham and Women’s Hospital. He later performed cardiovascular fellowship training at Johns Hopkins and earned a Masters of Health Science degree in Cardiovascular Epidemiology from the Johns Hopkins Bloomberg School of Public Health. Dr. Ndumele has received multiple honors in relation to his academic work, including two Stanley L. Blumenthal, MD, awards, gaining admission to the Delta Omega Public Health Honor Society in May 2011, and being named a “Future Star in Cardiology” by CardioSource.org.

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. To make donations or sign up for the P.J. Schafer golf tournament, go to www.pjschafer.com.

100-Plus Publications!

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 and endocrinology journals. From October 2011 to September 2012, the Center showed some amazing productivity, publishing more than 100 articles of significant basic and clinical research findings, commentaries, and review articles in the leading medical journals, including:

- American Journal of Cardiology (8 publications)
- American Journal of Medicine (2)
- Annals of Internal Medicine (1)
- Archives of Internal Medicine (1)
- Arteriosclerosis, Thrombosis & Vascular Biology (1)
- Atherosclerosis (7)
- Circulation (3)
- Circulation: Cardiovascular Genetics (1)
- Circulation: Cardiovascular Imaging (6)
- Circulation: Cardiovascular Quality & Outcomes (2)
- Diabetes Care (3)
- European Heart Journal (1)
- Heart (1)
- Hypertension (1)
- International Journal of Cardiology (1)
- Journal of the American College of Cardiology (4)
- Journal of the American College of Cardiology: Cardiovascular Imaging (3)
- Journal of the American Medical Association (3)
- Journal of Clinical Endocrinology and Metabolism (3)
- Journal of Clinical Investigation (1)
- Lancet (1)
- Stroke (1)

Thank You!

The Ciccarone Center is indebted to the following individuals for their extraordinary assistance to and support of our clinical research activities over the past year: Dan Montgomery; Mr. and Mrs. Nicholas Paleologos; Ginger Gomprecht; Irene Pollin; Mr. and Mrs. Richard Amato; Mr. and Mrs. Charles Zeller; Donald Shepard; Thad Shelly; Michael Lenkin; John Heyman; Mr. and Mrs. Paul Schafer; Mr. and Mrs. Louis Friedman; Mr. and Mrs. Carter Shepherd; Edgar Calin; Dr. Monica Uhlhorn; and Bob Taylor.

Much of the Ciccarone Center’s remarkable success over the past year, including our publications track-record and innovations in patient care, could not happen without their very generous support.
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 22 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.

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, high-density lipoprotein-cholesterol [HDL-C], LDL-C, and triglyceride levels) and apolipoproteins (LP[a], apolipoproteins A-I and B) as well as nontraditional risk factors, such as high-sensitivity C-reactive protein (hsCRP), and measurements of lipoprotein size and number. However, for many individuals these emerging risk factors are often not needed to optimize their management in a cost-effective manner.

**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 Maryland Athletic Club (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.

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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.**
A listing of the publications by the staff of The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease, from October 2011 through September 2012


Summary: Competing comorbidities, particularly cardiovascular disease (CVD), should be considered when individualizing adjuvant therapies for postmenopausal women diagnosed with breast cancers. Among postmenopausal women with hormone receptor-positive (HR+) non-metastatic breast cancer, the majority had a predicted 10-year CVD risk that was equivalent to or higher than breast cancer recurrence risk. Physicians should weigh competing risks and offer early screening and cardiac prevention strategies for women at a greater risk for CVD.


Summary: Early in 2012, a debate over the merits of statin therapy in primary prevention was published in the Wall Street Journal. The statin opponent claimed that statins should only be used in secondary prevention and never in any primary-prevention patients at risk for cardiovascular events. In this evidence-based rebuttal to those claims, we review the evidence supporting the efficacy of statin therapy in primary prevention. Cardiovascular risk is a continuum in which those at an elevated risk of events stand to benefit from early initiation of therapy. Statins should not be reserved until after a patient suffers the catastrophic consequences of atherosclerosis. Contrary to the assertions of the statin opponent, this principle has been demonstrated through reductions in heart attacks, strokes, and mortality in numerous randomized controlled primary-prevention statin trials. In selected at-risk individuals, the combination of pharmacotherapy and lifestyle changes is more effective than either alone. Future investigation in prevention should focus on improving our ability to identify these at-risk individuals.


Summary: Current guidelines recommend the use of coronary artery calcification (CAC) scoring for intermediate risk patients; however, the potential role of CAC among individuals who have no risk factors is less established. We sought to examine the relationship between the presence and burden of traditional risk factors and CAC for the prediction of all-cause mortality. By highlighting that individuals without risk factors but elevated CAC have substantially higher event rates than those that have multiple risk factors but no CAC, these findings challenge the exclusive use of traditional risk assessment algorithms for guiding the intensity of primary prevention therapies.


Summary: Despite substantial risk reductions targeting low-density lipoprotein cholesterol with statins, there remains significant residual risk as evidenced by incident and recurrent CVD events among statin-treated patients. Observational studies have shown that low levels of high-density lipoprotein cholesterol (HDL-C) are associated with increased CVD risk. It remains unclear whether strategies aimed at increasing HDL-C in addition to background statin therapy will further reduce risk.


Summary: In this featured debate in JAMA, we reviewed the extensive data from randomized clinical trials and observational studies supporting the selective use of lipid lowering therapy in a middle-aged man with hyperlipidemia.

**Summary:** Current national guidelines recommend statins as part of a comprehensive primary prevention strategy for patients with elevated low-density lipoprotein cholesterol at increased risk for developing coronary heart disease within 10 years. However, we believe data provide compelling evidence to support the use of statins for primary prevention in patients with risk factors for developing coronary heart disease over the next decade.


**Summary:** Current national guidelines recommend statins as part of a comprehensive primary prevention strategy for patients with elevated low-density lipoprotein cholesterol at increased risk for developing coronary heart disease within 10 years. However, we believe data provide compelling evidence to support the use of statins for primary prevention in patients with risk factors for developing coronary heart disease over the next decade.


**Summary:** We conclude that CAC can help risk stratify individuals with diabetes and may aid in selection of patients who may benefit from therapies such as low-dose aspirin for primary prevention of CVD.


**Summary:** We believe that the data argues against the use of CAC progression as a clinical surrogate marker of preventive therapy efficacy. Further studies with non-statin medications and with concomitant outcome data are needed. However, CAC progression has potential for monitoring subclinical coronary artery disease (CAD) in some patients with mild CAC and may facilitate treatment decisions. In this review we provide recommendations for repeat CAC testing and discuss when repeat CAC testing may be helpful to assess CAD progression.


**Summary:** Both the Framingham and Reynolds risk scores predict onset and progression of subclinical atherosclerosis. However, the Reynolds risk score may provide additional predictive information when discordance between the scoring systems exists.

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**Staff Spotlight: Erin D. Michos, MD**

Erin D. Michos, MD, MHS, an assistant professor of medicine within the Division of Cardiology at Johns Hopkins University, with a joint appointment in the Department of Epidemiology, joined the Ciccarone Center in 2007. After medical school at Northwestern University in Chicago, Dr. Michos completed both her internal medicine residency and cardiology fellowship at Johns Hopkins University. She also completed her Masters of Health Science degree in Cardiovascular Epidemiology at the Johns Hopkins Bloomberg School of Public Health.

Her research interests focus on preventive cardiology and subclinical atherosclerosis imaging, specifically heart disease risk prediction in women, lipid management and the role vitamin D plays in cardiovascular health. Dr. Michos, who won the 2008 P.J. Schafer Cardiovascular Research Grant, is using some of the award money to run vitamin D assays in the ARIC cohort as an ancillary to R01 (using blood from another year not funded in the R01 proposal). Also, after completing an ACCF/Pfizer Career Development Award, she was awarded an R01 grant from the NIH/NINDS to investigate the role of vitamin D with brain aging (i.e. cerebrovascular disease and cognitive decline). Dr. Michos has authored or co-authored more than 50 manuscripts in peer-reviewed journals.

Dr. Michos sees patients in the preventive cardiology outpatient clinic and the inpatient cardiology consult service, as well as the echocardiography lab. She also teaches students at the Johns Hopkins University Medical School and School of Public Health. She is a member of the board for the Baltimore chapter of the American Heart Association, a Fellow of the American College of Cardiology, and a member of the ACC’s Women in Cardiology Committee.
10. Nasir K, Blaha MJ. No justification for coronary CT angiography in low- to intermediate-risk individuals with coronary artery calcium score of 0. *Radiology*. 2011 Nov;261(2):663-4. **Summary:** We review the rationale for non-contrast CT to risk stratify low-risk patients with atypical chest discomfort who have normal cardiac biomarkers.

11. Ahmed HM, Blaha MJ, Nasir K, Rivera JJ, Blumenthal RS. Effects of physical activity on cardiovascular disease. *American Journal of Cardiology*. 2012 Jan 15;109(2):288-95. **Summary:** Much attention has been directed toward lifestyle modifications as effective means of reducing cardiovascular disease risk. We review recent observational and interventional trials investigating the effects of physical activity on markers of (or causal factors for) atherosclerotic burden and vascular disease. There is a strong correlation between physical activity and triglyceride reduction, apolipoprotein B reduction, HDL increase, change in LDL particle size, increase in tissue plasminogen activator activity, and decrease in CAC. Further research is needed to elucidate the effect on inflammatory markers and intima-media thickness.

12. Setodji CM, Scheuner M, Pankow JS, Blumenthal RS, Chen H, Keeler E. A graphical method for assessing risk factor threshold values using the generalized additive model: the multi-ethnic study of atherosclerosis. *Health Service Outcomes Research Methodology*. 2012 Mar;12(1):62-79. **Summary:** We suggest the use of a technique used in the estimation of the effect of risk factors on health outcomes in multivariate regression settings, while accounting for mixture distributions in the outcome of interest and adjusting for covariates. These empirically based thresholds of risk factors could be informative in terms of the highest or lowest point of a risk factor beyond which no additional impact on the outcome should be expected.

13. Wong ND, Nelson JC, Granston T, Bertoni AG, Blumenthal RS, Carr JJ, Guerci A, Jacobs DR Jr, Kronmal R, Liu K, Saad M, Selvin E, Tracy R, Detrano R. Metabolic syndrome, diabetes, and incidence and progression of coronary calcium: the Multi-Ethnic Study of Atherosclerosis study. *Journal of the American College of Cardiology: Cardiovascular Imaging*. 2012 Apr;5(4):358-66. **Summary:** This study examines and compares the incidence and progression of CAC among persons with metabolic syndrome and diabetes mellitus (DM) versus those with neither condition. Individuals with metabolic syndrome and DM have a greater incidence and absolute progression of CAC compared with individuals without these conditions, with progression also predicting coronary heart disease events in those with metabolic syndrome and DM.


15. Michos ED, Blumenthal RS. How accurate are 3 risk prediction models in US women? *Circulation*. 2012 Apr 10;125(14):1723-6. **Summary:** We review the strengths and limitations of the Reynolds Risk Score and the Framingham risk estimates for myocardial infarction (MI) prediction and for major CVD event prediction.

16. Martin SS, Blumenthal RS, Miller M. LDL cholesterol: the lower the better. *The Medical Clinics of North America*. 2012 Jan;96(1):13-26. **Summary:** Multiple statin trials and meta-analyses support a treatment target of LDL-C levels less than 70 mg/dL, as this is associated with improved clinical outcomes and atherosclerosis regression. In fact, no threshold has yet been identified below which patients do not benefit from lowering of LDL-C.

17. Chung CP, Giles JT, Petri M, Szklue M, Post W, Blumenthal RS, Gelber AC, Ouyang P, Jenny NS, Bathon JM. Prevalence of traditional modifiable cardiovascular risk factors in patients with rheumatoid arthritis: comparison with control subjects from the multi-ethnic study of atherosclerosis. *Seminars in Arthritis & Rheumatism*. 2012 Feb;41(4):535-44. **Summary:** We tested the hypotheses that major modifiable cardiovascular risk factors were more frequent and rates of treatment, detection, and control were lower in patients with rheumatoid arthritis than in non-rheumatoid arthritis controls. Hypertension is more common in patients with rheumatoid arthritis, while other traditional CV risk factors are highly prevalent, under-diagnosed, and poorly controlled in patients with rheumatoid arthritis, as well as controls.

**Summary:** We assessed the association between sleep apnea, snoring, incident CV events and all-cause mortality in the Multi Ethnic Study of Atherosclerosis (MESA) cohort and concluded that sleep apnea, but not habitual snoring, was associated with high incident CV events and all-cause mortality in a multi-ethnic population-based study of adults free of clinical CV disease at baseline.


**Summary:** This study demonstrates the feasibility of short-term biomarker modulation studies using the contralateral breast of high-risk women. Simvastatin appears to modulate estrone sulfate concentrations and its potential chemopreventive activity in breast cancer warrants further investigation.


**Summary:** These prospective data provide evidence that inflammation is a contributor to the progression of subclinical atherosclerosis in rheumatoid arthritis and that it is potentially modified favorably by tumor necrosis factor inhibitors and detrimentally by glucocorticoids.


**Summary:** Both high and very high CAC are associated with an elevated risk of CHD events in those without symptomatic CHD at baseline; however, very high CAC is associated with an increased risk of angina, but not CHD death or MI, compared to high CAC scores.


**Summary:** Individuals with metabolic syndrome or diabetes have low risks for CHD when CAC or carotid intimal-medial thickness (CIMT) is not increased. Prediction of CHD and CVD events is improved by CAC more than by CIMT. Screening for CAC or CIMT can stratify risk in people with metabolic syndrome and diabetes and support the latest recommendations regarding CAC screening in those with diabetes.


**Summary:** The homeostasis model assessment of insulin resistance has a positive and graded association with extra-coronary calcification, but not independently of cardiovascular risk factors, particularly metabolic syndrome components.


**Summary:** We conclude that elevated resting heart rate, a well-described predictor of cardiovascular mortality with unclear mechanism, is associated with increased incidence and progression of coronary atherosclerosis among individuals free of CVD at baseline.

**Summary:** We review the current status of the use of pharmacogenetic techniques to improve blood pressure control.


**Summary:** The National Cholesterol Education Program Adult Treatment Panel (ATP) has provided education and guidance for decades on the management of hypercholesterolemia. Its third report (ATP III) was published 10 years ago, with a white paper update in 2004. There is a need for translation of more recent evidence into a revised guideline. To help address the significant challenges facing the ATP IV writing group, this statement aims to increase the likelihood of implementation in clinical practice by offering solutions that translate the totality of published reports into enhanced hyperlipidemia guidelines to better combat the devastating impact of hyperlipidemia on cardiovascular health.


**Staff Spotlight: Rani Hasan, MD**

Rani Hasan, MD, a fellow in the Division of Cardiology at Johns Hopkins University, spent the past year as a full-time student pursuing formalized clinical research training and earning an MHS degree in clinical investigation at the Johns Hopkins Bloomberg School of Public Health. His primary areas of research interest are the evaluation of cardiac CT imaging and improving clinical outcomes of treatments for cardiovascular disease. He conducted a secondary analysis of the prospective multicenter Coronary Evaluation Using Multidetector Spiral Computed Tomography Angiography Using 64 Detectors (CORE64) study, in which he and his colleagues demonstrated that arc calcification, a novel measure of atherosclerotic plaque composition, was independently associated with acute coronary syndromes in a high-risk population undergoing imaging evaluation for chest pain. This analysis garnered a best poster award at the ACC Capitol Symposium and Scholarly Exchange in Washington, D.C., in November 2011, and was well received as an oral presentation at the ACC Scientific Sessions in Chicago in March.

In addition to contributing to the Ciccarone Center’s analyses of cardiac imaging and selective statin use in the prevention of cardiovascular disease, Dr. Hasan is currently evaluating the utility of cardiac CT angiography in the evaluation and treatment of cardiovascular disease. He is also developing projects to predict and minimize the risk of stroke and other complications among patients undergoing transcatheter aortic valve implantation (TAVI), a novel procedure that is being evaluated as a minimally-invasive alternative to surgical valve replacement.


**Summary:** Whether β-adrenergic polymorphisms influence catecholamine responses in patients with cardiovascular disease is not known. This study concludes that β-receptor gene variants significantly influence inotropic and chronotropic responses to β-agonist exposure in patients on β-blocker therapy.


**Summary:** There is an inverse relationship between coronary endothelial function and local coronary wall thickness in patients with coronary artery disease but not in healthy adults. These findings demonstrate that local endothelial-dependent functional changes are related to the extent of early anatomic atherosclerosis in mildly diseased arteries. This combined MRI
approach enables the anatomic and functional investigation of early coronary disease.


**Summary:** The incidence of subclinical CAD in African-Americans with HIV infection is provocatively high. Larger studies are warranted to confirm the role of vitamin D deficiency in the development of CAD in HIV-infected African-Americans.


**Summary:** Both vitamin D deficiency and silent CAD are prevalent in HIV-infected African-Americans. In addition to management of traditional CAD risk factors and substance abuse, vitamin D deficiency should be evaluated in HIV-infected African-Americans. These data support the conduct of a prospective trial of vitamin D in this high-risk patient population.


**Summary:** Intravenous administration of the XO inhibitor allopurinol acutely improves the relative and absolute concentrations of myocardial high-energy phosphates and ATP flux through creatine kinase (CK) in the failing human heart, offering direct evidence that myofibrillar CK energy delivery can be pharmaceutically augmented in the failing human heart.


**Summary:** Cardiosphere-derived cells (CDCs) reduce scarring after myocardial infarction, increase viable myocardium, and boost cardiac function in preclinical models. We show that intracoronary infusion of autologous CDCs in patients within six weeks of an MI is safe and decreased infarct size and increased viable myocardium. These findings are consistent with regeneration of myocardium and merit additional assessment in further clinical trials.


**Summary:** Annually, ~80,000 Americans receive guideline-based primary prevention implantable cardioverter-defibrillators (ICDs), but appropriate firing rates are low. In a cohort of primary prevention ICD candidates, combining a myocardial heterogeneity index with an inflammatory biomarker identified a subgroup with a very low risk for adverse cardiac events, including ventricular arrhythmias. This novel approach warrants further investigation to confirm its value as a clinical risk stratification tool.

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**Staff Spotlight: Rajesh Tota-Maharaj, MD**

As the lead author of a study investigating the utility of coronary artery calcium scoring at the extremes of age, published in the *European Heart Journal*, Rajesh Tota-Maharaj, MD, and colleagues noted that, even after adjustment for traditional cardiovascular risk factors, coronary artery calcium remained a potent prognostic indicator of all-cause mortality in the elderly, as well as in younger individuals. Dr. Tota-Maharaj also collaborated with Drs. McEvoy, Blaha, Nasir, and Blumenthal on a review of the utility of coronary artery calcium in the assessment of patients presenting with acute chest pain. The article demonstrated that a coronary calcium score of zero has a high negative predictive value in terms of cardiovascular events among low-risk patients presenting with acute chest pain.

Dr. Tota-Maharaj has also co-authored two books on the metabolic syndrome, one focusing primarily on the pathophysiology of the metabolic syndrome and the other describing the impact of increasing obesity and cardiovascular risk factors on the prevalence of the metabolic syndrome among South Asians. As part of his growing interest in ethnicity and the metabolic syndrome, Dr. Tota-Maharaj presented a poster describing the ethnic differences in fatty liver, using data from the Multi-Ethnic Study of Atherosclerosis at the 2012 ACC Scientific Sessions.

**Summary:** It has long been hypothesized that reduced energy delivery contributes to the contractile dysfunction of heart failure (HF). These observations provide direct evidence that the failing heart is “energy starved” as it relates to cardiac CK. In addition, these data identify CK as a promising therapeutic target for preventing and treating HF and possibly diseases involving energy-dependent dysfunction in other organs with temporally varying energy demands.


**Summary:** Combined heat acclimation (AC) and exercise training (EX) enhance exercise performance in the heat while meeting thermoregulatory demands. We suggest that concerted adjustments induced by AC and EX lead to enhanced metabolic and mechanical performance of the EXAC heart.


**Summary:** Continuous subcutaneous insulin infusion and multiple daily injections have similar effects on glycemic control and hypoglycemia, except continuous subcutaneous insulin infusion has a favorable effect on glycemic control in adults with type 1 diabetes mellitus. For glycemic control, real-time continuous glucose monitoring is superior to self-monitoring of blood glucose, and sensor-augmented insulin pumps are superior to multiple daily injections and self-monitoring of blood glucose without increasing the risk for hypoglycemia.


**Summary:** There is little evidence that genetic differences contribute significantly to race/ethnic disparities in the endocrine disorders examined. Multilevel interventions have reduced disparities in diabetes care, and these successes can be modeled to design similar interventions for other endocrine diseases.


**Summary:** Among postmenopausal glucose-intolerant women not using estrogen, intensive lifestyle modification increased SHBG levels and lower DHEA levels. These changes are associated with lower glucose independent of adiposity and insulin. Metformin effects upon endogenous sex hormones are not significant.


**Summary:** Inpatient glucose management remains an important area for patient safety, quality improvement, and clinical research, and the implementation model should guide other hospitals in their glucose management initiatives.

**Summary:** Sex hormones are associated with waist-to-hip ratio at baseline and also during follow-up above and beyond their baseline association. Future research is needed to determine if manipulation of hormones is associated with changes in central obesity.


**Summary:** Our findings do not support the hypothesis that differences in level or diurnal pattern of salivary cortisol output are associated with metabolic syndrome among persons without clinical diabetes.


**Summary:** This case demonstrates a novel finding that marked, but transient, right ventricular dysfunction can occur in the setting of acute respiratory failure.


**Summary:** These findings suggest that the four Lipoprotein(a)-defined groups are physiologically discrete. Further investigation is warranted to assess which parameters among the four can be used to more accurately characterize Lp(a)-associated cardiovascular risk.


**Summary:** This study demonstrates that computed tomography coronary angiography can detect early vessel-wall thickening with preserved luminal size in patients with intermediate/high versus low Framingham Risk Scores.


**Summary:** The value of coronary artery calcium for predicting mortality extends to both elderly patients and those <45 years old. Elderly persons with no CAC have a lower mortality rate than younger persons with high CAC.


**Summary:** Although further research is needed, carefully selected patients presenting to the emergency department with chest pain and with a normal electrocardiogram, normal cardiac biomarkers, and CAC = 0 may be considered for early discharge without further testing.


**Summary:** Altering the residential environment so that healthier behaviors and lifestyles can be easily chosen may be a pre-condition for sustaining existing healthy behaviors and for adopting new healthy behaviors.


**Summary:** In early postmenopausal women, sex hormones were associated with incident depressive symptoms.


**Summary:** In individuals at low predicted risk, according to Framingham Risk Scores, traditional risk factors predicted CAC progression in the short term with good discrimination and calibration. Prediction improved minimally when various novel markers were added to the model.


**Summary:** Symptomatic women have a lower prevalence of obstructive coronary artery disease and are less likely to have mixed coronary plaque compared to symptomatic men. Future studies are needed to determine the prognostic implications of these findings.


**Summary:** Although the prognosis for individuals without chest pain is stratified by coronary computed tomographic angiography (cCTA), the additional risk-predictive advantage by cCTA is not clinically meaningful compared with a risk model based on coronary artery calcium scoring. Therefore, at present, the application of cCTA for risk assessment of individuals without coronary artery calcium scoring should not be justified.


Summary: In this study of asymptomatic subjects without known CVD, the addition of CAC but not biomarkers substantially improved risk reclassification for future CVD events beyond traditional risk factors.


Summary: Although patients with a high number of clinical risk factors are more likely to have obstructive coronary artery disease, those who are young or who would be expected to have a very high exercise capacity are unlikely to have coronary stenosis and therefore may benefit from initial treadmill testing instead of CTA.


Summary: In the absence of specific randomized trials in the HIV-infected population, HIV-infected persons should be treated for cardiovascular risk factors according to current national guidelines for reducing risk, including those for aspirin use and for treatment of dyslipidemia, hypertension, and metabolic syndrome.


84. Soliman EZ, Prineas RJ, Case LD, Russell G, Rosamond W, Rea T, Sotoodehnia N, Post WS, Siscovick D, Psaty BM, Burke GL. Electrocardiographic and clinical predictors separating atherosclerotic sudden cardiac death from incident coronary heart disease. *Heart*. 2011 Oct;97(19):1597-601. **Summary:** Sudden cardiac death and coronary heart disease have many risk factors in common, including hypertension, race/ethnicity, BMI, and heart rate, that have the potential to separate between the risks of both diseases. These results need to be validated in another cohort.

85. Ratchford EV, Gutierrez J, Lorenzo D, McClendon MS, Della-Morte D, DeRosa JT, Elkind MS, Sacco RL, Rundek T. Short-term effect of atorvastatin on carotid artery elasticity: a pilot study. *Stroke*. 2011 Dec;42(12):3460-4. **Summary:** Short-term treatment with high-dose atorvastatin was associated with improvement in the carotid elasticity metrics. Carotid artery elasticity measured by B-mode ultrasound is a simple noninvasive measure of arterial wall function and may be a useful surrogate end point in clinical trials targeting individuals at increased risk for atherosclerosis.


A listing of the late-breaking clinical research data presented at major cardiology meetings by the faculty and fellows of the Johns Hopkins Ciccarone Center for the Prevention of Heart Disease, during the course of 2012.

Presentations at the 2012 Scientific Sessions of the American College of Cardiology (ACC)


12. Tison GH, Blaha MJ, Nasir K, Blumenthal RS, Szklo M, Ding J, Budoff MJ. The association of anthropometric obesity measures with CT-measured non-alcoholic fatty liver disease in the multi-ethnic study of atherosclerosis. Oral presentation at: ACC Scientific Sessions; March 27, 2012; Chicago, IL.

Presentations at the 2012 Scientific Sessions of the American Heart Association (AHA)


‘Tie-ing’ it All Together

Nearly everyone affiliated with Johns Hopkins over the past half-century or so has probably seen the familiar “Neil Grauer Blue Jay,” the cartoon de facto mascot for Hopkins lacrosse that has adorned just about everything, from caps, cups and shirts, to umbrellas, banners, and bags, since the eponymous and inveterate illustrator’s undergrad days. This past year, Grauer (’69), who has drawn and re-drawn the logo multiple ways, created a new version of his famous blue bird to honor the Ciccarone Center. Dr. Roger Blumenthal was so enamored with the design that he commissioned Vineyard Vines to create an exclusive necktie featuring the logo, thus literally “tie-ing” together two great Hopkins traditions — lacrosse and medicine.
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. Dr. Michos also sees 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, 10755 Falls Road, Pavilion I Suite 360, Lutherville, MD 21093 location can be scheduled at 410-583-2740. (Drs. Blumenthal, Post, Ashen, Ratchford, and Blaha)

Appointments at the Johns Hopkins Outpatient Center, 601 North Caroline Street, Baltimore, Maryland 21287, can be scheduled at 410-502-0550 or 410-955-7376. (Drs. Jones, Ndumele, Blumenthal, and Martin)

Appointments at the Johns Hopkins Cardiology Center at Odenton, 1132 Annapolis Road, Suite 104, Odenton, MD 21113, can be scheduled at 410-874-1520. (Drs. Michos and Ratchford)

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

Support the Prevention of Heart Disease

Heart disease is America’s #1 killer – more than cancer and accidents combined. Our goal at the Ciccarone Center is to stop heart disease before it develops, through an aggressive program of risk assessment and comprehensive lifestyle and medical management.

Like all pioneering medical programs, however, we are in constant pursuit of funding to accelerate our progress. We depend on the support of generous donors to thrive.

The Johns Hopkins Ciccarone Center for the Prevention of Heart Disease has just completed its 22nd year of service and is going strong. When you give to the Ciccarone Center, you’re ensuring that, if you or a loved one is at risk for heart disease or stroke, you’ll have a program to help prevent it. Or if you already have heart disease, you’ll maximize your opportunity for an active and enjoyable life.

You can help support this program by contributing to the future of heart disease research, education, and patient care. Make a tax-deductible donation to the Ciccarone Center today and help save lives tomorrow.

Gifts may be made in the form of cash, check, credit card, securities, real estate or personal property. For more information, please call the development office at 410-516-6607.