Imaging played a large role in this year’s Scientific Sessions. Vince Ho put together an outstanding program that was well attended. Sanjiv Sam Gambhir, MD, PhD, of Stanford University, presented the Charles T. Dotter Memorial Lecture, entitled “Cardiovascular Molecular Imaging of Gene and Cell Therapies.” It was an excellent review.

The Melvin Judkins Young Investigator Competition was also very competitive this year. The winner was Jaehoon Chung, MD, of Stanford University, who received the award for the presentation entitled “In Vivo Kinetics Of Embryonic Stem Cell Viability Following Transplantation Into The Injured Murine Myocardium.” Other finalists included Chiara Buccirelli-Ducci, MD; Andrew Einstein, MD, PhD; Jing Tian, MD, PhD; and Moriel Vandsburger, BS.

The annual business meeting dinner was well attended and provided a wonderful opportunity to interact with colleagues and recognize the Melvin Judkins Young Investigator Award winner and finalists.

Healthcare reform is a topic of intense interest to all of us. The American Heart Association has taken a very active role from a patient-centric perspective. You are encouraged to join the “You’re the Cure” Network. This is an opportunity to become engaged in the process with a strong voice. Learn more and join the effort through www.yourethecure.org.
SCIENTIFIC SESSIONS 2009 IN REVIEW

Again, this year’s scientific program provided exciting insights into the state of the art of clinical and basic science research on cardiovascular imaging methods around the globe. Some of the many highlights include the following:

We have always been fascinated with the use of modern medical imaging techniques to learn more about the people of the Old. Sometimes, this endeavor can yield amazing insights and challenge long-held convictions. For instance, in light of research results from the Mid America Heart Institute in Kansas City, the notion that atherosclerosis is a disease of modern man, brought about by our lifestyle, is in question. Using CT scans, the researchers systematically examined 20 mummies housed in the Museum of Antiquities in Cairo, Egypt and to their surprise found clear CT evidence of vessel calcification. The investigators concluded that atherosclerosis is not only a disease of modern ages, but was present and not unusual in humans living 3,000 years ago.

The recent tide of work aimed at estimating radiation exposure from medical imaging saw another entry at this year’s conference by researchers from Duke University Medical Center. The investigators analyzed data from 64,074 patients treated for acute heart attack between 2006 and 2009 at 49 academic hospitals throughout the United States. According to this study, the average cumulative ionizing radiation exposure to patients admitted with acute myocardial infarction from various imaging tests (invasive coronary angiography, nuclear perfusion imaging, radiography, CT, etc.) was 14.5mSv. The authors commented: “We should not withhold necessary, appropriate tests that involve ionizing radiation — they provide very important information. What we should do is evaluate and understand the clinical indications for tests that involve ionizing radiation. We need to be sure they are being done appropriately.”

Healthcare officials have long demanded proof that cardiac CT improves quality of life and survival as a prerequisite for recognition and reimbursement of this test. Exciting results from Scientific Sessions 2009 may have brought us a step closer to providing that proof. Researchers from Los Angeles and San Francisco investigated the outcomes of 4,244 symptomatic patients without known coronary artery disease: 2,538 who underwent cardiac CT and 1,706 who received standard-of-care treatment. According to their results, the use of cardiac CT resulted in a 52 percent risk reduction. The investigators partially attribute this highly beneficial effect to increased awareness of coronary arterial disease severity among those undergoing cardiac CT, which may have contributed to improved survival.

Lastly, the long-awaited results of the CT-STAT multicenter trial on the use of CT for acute chest pain assessment in the emergency department were presented in a late-breaking research session. Under the lead of investigators from Beaumont Hospital in Detroit, 16 centers throughout the United States enrolled 749 acute chest pain patients who were randomized to ECG-synchronized CT versus standard-of-care management. According to the results of this investigation, time to diagnosis decreased by half when CT was used while cost to diagnosis decreased by one-third due to expedited diagnosis and reduced length of stay. These exciting new insights should certainly contribute to the accelerated, widespread adoption and appropriate recognition of this test, which so disruptively challenges the outdated and arcane management pathways that are currently used to address this vexing healthcare problem.

Curious about the latest updates on cardiovascular imaging and intervention? Visit www.americanheart.org/cvricouncil for more information and to join or renew your membership.

International Stroke Conference

Feb. 24–26, 2010
Henry B. Gonzalez Convention Center • San Antonio, Texas

The latest techniques and developments in stroke imaging and minimally invasive therapy of neurovascular disorders will be reviewed. A plenary session on Feb. 24 is dedicated to “Physiologic Imaging of Brain Perfusion.” Visit www.strokeconference.org for the latest program updates and information.