



# SCIENTIFIC SESSION NEWS

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American College of Cardiology 52nd Annual Scientific Session

Chicago • March 30–April 2, 2003

## Spotlight Program Widens Embrace at ACC '03

The Sunday Spotlight program grows more popular each year. At ACC '03, it will extend its reach to all members of the cardiac care team while continuing to feature a robust line-up of in-depth, subspecialty programs anchored by ACCIS '03, the interventional cardiology Spotlight that launched the trend several years ago.

One of three newcomers making their Spotlight debut in Chicago, CardioTeam '03 will focus on the role of nurses, nurse practitioners, physicians assistants, pharmacists, and others in the care of cardiac patients. CardioTeam program Co-chair **Brenda C. Garrett, RN**, hopes the new Spotlight session will draw more non-physician clinicians to the ACC 52nd Annual Scientific Session by including presentations tailored to their needs and providing a forum for rubbing shoulders with colleagues from across the country.

"The ACC meetings have always been open to RNs and PAs and nurse practitioners, but there's never been a session designed for those particular team members to network," said Garrett, clinical resource manager for American Cardio-

vascular Research Institute in Atlanta. "This type of program can broaden opportunities for everyone."

The program will lead off with several presentations on multidisciplinary outpatient management of patients with coronary artery disease. Speakers will explore clinical aspects of treating coronary artery disease as well as such practical issues as the role of nurses in lipid management clinics, helping patients adhere to medication regimens, and avoiding errors in billing and reimbursement.

The program's emphasis will then shift to patients with both diabetes and heart disease. A discussion of glucose management will launch this portion of the program. Next up will be a report on diagnostic approaches tailored to this population of patients, many of whom experience atypical or no symptoms, despite extensive atherosclerotic disease. Case studies exploring the management of acute coronary events and the comparative roles of medical therapy and revascularization in diabetic patients with heart disease will round out this part of the program.

CardioTeam '03 will close with several sessions devoted to new strategies in the management of heart failure. As more and more people develop heart failure, and treatments become more complex, non-physician clinicians play an increasingly vital role in patient management, Garrett said.

"A multidisciplinary approach is very important. Patients need a lot of support, and it's obvious that cardiologists are under tremendous time constraints right now."

### ACCIS '03

Returning again in 2003, the ACCIS Spotlight program will offer a rich and challenging line up. From big-picture state-of-the-art lectures to reports of late-breaking clinical trials to case presentations, the program has something for everyone who wields a catheter—or refers patients for interventional procedures.

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An architectural boat cruise on the Chicago River shows bridge houses and Loop skyscrapers from a wonderful vantage point. Chicago—the great American City—welcomes cardiovascular specialists from around the world to the ACC's 52nd Annual Scientific Session March 30–April 2.

## ACC '03 Takes High-Tech Leap Into Cardiology's Future

There's a digital divide in medicine today. In some health systems, physicians work in an electronic world, ordering diagnostic tests and medications from bedside computers powered by helpful pop-up lists and reminder systems. Elsewhere, paper—and a good memory—still hold sway.

As cardiology becomes increasingly fast paced and complex, its future may depend on narrowing that technological gap, according to **Bijoy Khandheria, MD**, a professor of medicine at Mayo Medical School, Rochester, Minn., and ACC '03 program co-chair. "The amount of information generated on a daily basis is so large that no single individual can process it or remember it. Using information technology to manage all that data is going to be critical," he said.

At ACC '03, cardiologists will have more opportunities than ever to learn about advances in information technology. As in the past, the Exposition will feature practi-

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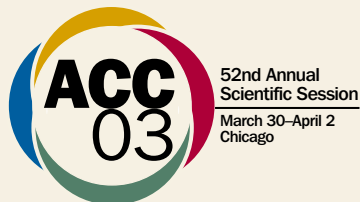
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## Opportunities Draw Entire Cardiac Team to ACC '03

As a cardiac research sonographer at the University of California San Diego Medical Center, **Monet Strachan** lives and breathes echocardiography every working day. At ACC '03, she's looking forward to finding out what's new in the rest of the cardiology world.

"If you understand globally what cardiology is all about, it makes you better able to focus on what you're doing in your little area," she said. "It makes you more valuable to the physicians you work with."

It also increases a clinician's value to patients, according to **Lori Carlson**, a registered nurse and echocardiography research supervisor at the Mayo Clinic, Rochester, Minn. Most patients receive no compensation for participating in a research study, other than perhaps more individual attention from nurses and doctors. Carlson believes that keeping abreast of a broad range of developments in cardiology makes her a reliable source of information about more than just echocardiography.

"You develop a pretty close relationship with patients, and they count on you to answer any questions they might have," Carlson said. "If you can help them better understand a disease process or a medication interaction, they feel they're getting something valuable from being in the study—and they keep coming back."

The ACC 52nd Annual Scientific Session is a great opportunity for

nonphysician clinicians, both professionally and personally. Both Strachan and Carlson enjoy zeroing in on specific areas of research, comparing their experience with that of other teams from around the world. Carlson is especially interested in some of the specialized imaging techniques under investigation at the Mayo Clinic, such as strain rate imaging. Strachan, who has participated in studies of echocardiographic myocardial perfusion imaging for six years, likes to check out nuclear imaging sessions on the same topic, just to keep on top of the competition.

Because both women participate in multicenter clinical studies, they have professional contacts across the country—many of whom they know only by telephone or e-mail. At the Annual Scientific Session, they can finally put a face to a name. Not only does that make work more enjoyable, it opens doors to professional opportunities.

"If I know two people and they know five people, by the end of the meeting, I know seven people," Strachan said. "Pretty soon I have an entire network I can contact if I have a question about something, and many more opportunities to advance my career."

Sometimes the Annual Scientific Session brings people together who seldom see each other, despite being employed by the same institution. Earlier in her career, Carlson worked at the Mayo Clinic in



An integral part of the cardiovascular care team, cardiac nurses provide much of the moment-to-moment care that affects the survival and quality of life for patients.

Scottsdale, Ariz. It was at an ACC meeting that she first got to know a Rochester-based research colleague after corresponding with her for four years. The face-to-face meeting forged a connection that remains strong today.

"Now that I'm back in Rochester, we continue to have a fantastic working relationship," Carlson said.

Adding to the enjoyment of attending

the Annual Scientific Session is the chance to explore the host city. Chicago, renowned for its five-star restaurants, elegant shops, and beautiful waterfront is an appealing getaway for busy people whose professional and family responsibilities make everyday life a blur of activity.

"I love to travel, and see new places—and it's nice to have some time just for me," Strachan said. ○

## Drug-Eluting Stents: Breakthrough, Budget-Buster—or Both?

Drug-eluting stents are likely to both make history and repeat it. Already they are being hailed as an unprecedented clinical breakthrough, having nearly eliminated the risk of restenosis in early clinical trials. Soon, however, they could begin wreaking the same financial havoc on health care budgets that bare stents did when they were commercially introduced nearly a decade ago.

The expected financial fall out is stirring controversy over how widely drug-eluting stents should be used once they are commercially available, and raising questions about how an already strapped health care system will cope with the introduction of another costly new device.

"There's no question that drug-eluting stents are a dramatic breakthrough, but Wall Street has projected that in fiscal year 2003, they will increase expenditures for cardiovascular diseases by \$5 billion. That's an enormous financial burden that cardiologists and society are going to have to deal with," said **William O'Neill, MD**, corporate director of cardiology for William Beaumont Hospitals in Royal Oak, Mich.

They shouldn't deal with it by denying the most effective care to patients,

according to **Robert Califf, MD**, a professor of medicine and Associate Vice Chancellor for Clinical Research at Duke University, Durham, N.C. "There's really no basis for offering someone inferior therapy unless you have some ulterior motive, like you don't want to pay for it," he said.

At ACC '03, Drs. O'Neill and Califf will debate these and other points in a **Controversies in Interventional Cardiology** session focusing on drug-eluting stents. Dr. Califf will argue that virtually all patients who undergo stenting should receive a drug-coated version of the device, while Dr. O'Neill will argue for selective use.

Interventional cardiologists will have to choose camps soon. In late October, an advisory panel of the Food and Drug Administration unanimously recommended marketing approval of Cordis' sirolimus-eluting CYPHER stent. Once drug-eluting stents hit the market, there will be a push to use them in a wide range of patients.

That would be a mistake, Dr. O'Neill cautioned, and not just because of their cost. More important, the safety and effectiveness of drug-eluting stents has been established primarily in patients with

simple lesions in a single coronary artery. Such patients make up just a small fraction of those who have percutaneous interventions and can't be considered representative of higher-risk patients, such as those with diabetes, multivessel disease, or complex lesions.

"Cardiologists have to be extremely careful about extrapolating the results of a randomized trial to a high-risk subset, even though it would appear to be intuitively obvious. There have been all sorts of things that seemed intuitively obvious but weren't proven to be true in randomized trials," Dr. O'Neill said.

But according to Dr. Califf, treatments that are effective in simple lesions are generally at least as effective in more complex lesions. Moreover, higher-risk patients have the most to gain from the use of drug-eluting stents, because their risk of restenosis is higher.

"This is a technology that has been subjected to substantial randomized trials and has produced a dramatic reduction in the rate of restenosis when compared to bare stents. I think it's very unlikely that you'd end up with a fundamentally different result in high-risk lesions," he said.

It's also unlikely that the health care system will be faced with burdensome new costs once drug-eluting stents are introduced. Instead, it will probably break even on the deal, Dr. Califf said. That's because a reduction in the risk of restenosis means that fewer patients will undergo repeat percutaneous coronary interventions, and some who might otherwise have undergone coronary artery bypass surgery will become candidates for PCI, at a lower cost. ○



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# Point-of-Care Symposium Tackles Conflict of Interest

When patients—sick, injured, sometimes with few other options—turn to a research center for leading-edge care, they trust both their physicians and the institution to do the right thing without regard for financial gain. When that trust is undermined, when the potential for profit clouds objectivity, the consequences to individual patients and health care research are devastating.

The importance of avoiding conflicts of interest in clinical research is widely accepted. How to do that without quashing innovation has been the subject of intense debate, however. At ACC '03, cardiologists, healthcare policymakers, and representatives from industry and the media will wrestle with the issues raised by potential and real conflicts of interest in cardiology research. Their forum, a three-hour point-of-care (POC) symposium titled, “**Conflict of Interest: Gold Mine or Mine Field,**” will offer participants plenty of opportunities to flex some intellectual muscle.

“This is a very complex subject, and one that’s increasingly important,” said program Co-chair **David R. Holmes, MD**, Mayo

Clinic, Rochester, Minn. “We need to find ways to encourage researchers to develop new approaches, but still make sure patients understand both the risks and the gains.”

Conflict of interest is attracting more attention today because academic institutions often invest in and accept research money from commercial sources. The Bayh-Dole Act of 1980 set the stage for financial partnerships between researchers, academic centers, and industry by declaring that the proceeds from successful inventions would be shared. Such relationships do not inherently represent a conflict of interest and, in fact, may benefit patients by encouraging the development of new technology. But when researchers and medical institutions stand to reap a windfall from clinical studies under their control, at least the potential for such conflict exists.

Concerned that real or perceived financial conflicts could undermine both the doctor-patient relationship and public support for research funding, professional and governmental groups have begun to develop detailed policies to ensure scrupulous oversight of medical research.

One of these groups, the **American Association of Medical Colleges (AAMC)**, released reports in December 2001 and October 2002 outlining recommendations for oversight of potential conflicts of interest by individuals and institutions.

**David Korn, MD**, AAMC senior vice president, will discuss the reports’ findings at the POC symposium.

Their provisions, intentionally tough, are predicated on a conviction that all significant financial interests in clinical research are potentially problematic and warrant close scrutiny. Among the circumstances identified by the AAMC reports as creating potential conflict of interest:

- entitlement to royalties from commercialization of investigational devices;
- investments in or ownership of companies sponsoring human research;
- consulting fees and honoraria;
- membership on the board of directors of a company sponsoring human research; and
- membership on such a company’s scientific advisory board.

The AAMC reports recommend that researchers not engage in research in which they have a financial interest unless the circumstances are compelling, and then to be closely monitored by people with no financial or professional ties to the research. The reports also recommend formation of institutional conflict of interest committees, as well as the development of procedures for reporting, investigating, and managing financial agreements with companies sponsoring research.

Whether the AAMC recommendations will achieve widespread adoption, and what form federal regulations will take, are both unknown. Dr. Holmes said the symposium will give attendees a perfect opportunity to scrutinize conflict of interest issues from a variety of angles and begin the hard work of developing policies to suit their individual circumstances.

“They will be exposed to a very complex issue that will, hopefully, lead them back to their institutions and ask, ‘What are we doing about conflict of interest? What more do we still need to do?’”

## ACC '03 Goes High Tech (continued from page 1)

cal tools for navigating the meeting, including stations for downloading the ACC '03 Palm Guide and clinical practice guidelines onto Palm and Windows CE personal digital assistants. Back by popular demand as well will be surfing stations for connecting to the Internet and checking e-mail, and training classes on key productivity software.

But that’s just the beginning. For the first time, the InfoTech Theater will showcase in-depth demonstrations by a host of technology vendors. Even more important, symposia highlighting such key topics as point-of-care computing and the privacy of electronic health information will be offered throughout the scientific sessions themselves, and will feature high-profile speakers from industry and health care. The goal is to highlight issues of general importance in health care information technology, while tailoring the presentations to meet the specific needs of cardiologists.

Placing so much emphasis on information technology is fitting, considering its potential to reshape the practice of cardiology, Dr. Khandheria said. Today, information technology can deliver electronic medical records and electronic images to the point of care, automate ordering systems to prompt physicians on the selection and dosage of drugs, instantly warn of dangerously abnormal test results, and translate dictation into chart notes using voice recognition software.

Tomorrow, however, the uses of information technology will be far more sophisticated. Dr. Khandheria predicted

that decision-support systems of the future will analyze each patient’s clinical history, medication profile, and therapeutic experience. Armed with this information, they will help guide patient management by giving physicians real-time feedback on the effectiveness and safety of proposed treatments.

“The thing that is still lacking today is a real-time decision support system that can say, ‘You’re ordering an angiogram. The patient’s creatinine is 2.0 mg/dL. Do you want to hydrate the patient?’ Or ‘The patient didn’t respond to that medication three years ago. Do you want to consider an alternative?’” Dr. Khandheria said. “Once that kind of decision support is available, information technology will be universally accepted, because it will be helpful, rather than a pain.”

Information technology can be helpful at an even higher level by harnessing the power of data mining to sort through genomic, proteomic, and clinical data on large populations of patients, according to **Jeff Augen**, president of TurboWorx, a New Haven, Conn.-based life sciences information technology company. Through the use of such powerful tools, pathophysiologic patterns—such as the relationship between inflammation and cardiovascular disease—may begin to appear from otherwise overwhelming amounts of information.

“Data mining experiments can uncover subtle, complex relationships,” said Augen, who will deliver a presentation at ACC '03 on the scientific value of information technology.



Technology designed to help cardiovascular team members will be a major focus of ACC '03.

In the future, data mining will also permit physicians to more precisely define the appropriate treatment for each patient by detecting differences in the molecular basis of diseases that appear to be physically similar. “You might not treat all patients the same way if you had an understanding of them at the molecular level, instead of at the physical level,” Augen said. “The way you gain that understanding is by combining genetic, physical, clinical, and demographic information into databases, and then reaching into those databases to stratify patients into groups.”

He believes that information technology will so dramatically improve the quality of medicine that large research centers will one day promote themselves on the basis of their information technology, just as today they promote their use of the latest medical technology today. “The mes-

sage for cardiologists is that information technology and database technology can accelerate advances in clinical medicine—and for this reason alone, they’re worthwhile investments,” Augen said.

## ACC '03 Checklist

### Program Planner

Create your own personal itinerary. Visit the Web for complete details: <http://www.acc.org/programplanner.htm>.

### Registration

Advance registration deadline: Feb. 26, 2003. Visit [http://www.acc.org/2003ann\\_meeting/home/home.htm](http://www.acc.org/2003ann_meeting/home/home.htm).

Call **800-253-4636, ext. 694**, or **301-897-2694** for more information!

# Invited Lectures Celebrate Achievements in Cardiology

Excellence in research, continuous innovation, a commitment to quality—these are the characteristics that define cardiology today. How the profession earned such distinction and what it will achieve in the future is the subject of three showcase lectures slated for ACC '03.

## Simon Dack Lecture

Throughout the 20th century, cardiologists have witnessed one impressive advance after another. In the annual Simon Dack lecture, **Eugene Braunwald, MD**, will journey through cardiology's past, highlighting 10 of its grandest achievements and drawing from them two important lessons. The first is that each was the culmination of tireless research, much of it in the basic sciences. The second is that cardiology's signal achievements often were collaborative, benefiting from the participation not just of cardiologists but also engineers, chemists, pharmacologists, and others.

"Cardiologists didn't just invent the ECG machine. It took a hundred years of work by many people to understand the importance of electrical activity in the heart," said Dr. Braunwald, distinguished Hersey professor of medicine and faculty dean for academic programs at Harvard Medical School in Boston.

The next stop on Dr. Braunwald's journey will be cardiology's present, a time characterized by what he calls the relentless pursuit of technical perfection. As car-

diologists increasingly focus on narrow subspecialties, patients benefit from their high level of skill. Unfortunately, they also suffer from the inevitable fragmentation of care, Dr. Braunwald said.

Looking to the future, Dr. Braunwald predicts that for at least the next two decades, the trend toward subspecialization will intensify, and procedure volumes will soar. In 20 years, however, the face of cardiology will be markedly different from what it is today, thanks to the genomics revolution. As the genetic underpinnings of cardiovascular disease are uncovered, prevention will become the major focus of cardiology, he said.

"I see the principle role of the cardiologist in 2023 being the interpretation of genetic markers of cardiovascular disease and the development of an individualized prescription for prevention for every person, long before anyone developed risk factors, let alone heart disease."

## Bishop Lecture

Echocardiography was introduced nearly 50 years ago, in 1953. **A. Jamil Tajik, MD**, likens its growth to that of a beautiful oak tree that starts out small but over the years matures into a mighty stalwart.

In delivering the annual Bishop lecture at ACC '03, Dr. Tajik will trace echocardiography's growth and development over the last half-century, from the M-mode era of the 1960s, with its ob-

scure squiggly tracings, to today's miniature transducers capable of capturing images from deep inside the body.

"Back in the 50s and 60s an acorn was planted. Today, the oak tree is in full bloom with many thick branches," said Dr. Tajik, the Thomas J. Watson, Jr., professor and professor of medicine and pediatrics at the Mayo Medical School, Rochester, Minn.

Along the way he will describe landmark achievements, including the introduction of 2-dimensional echo in the 1970s, an advance that revolutionized noninvasive imaging by depicting cardiac anatomy and function in real time. In the 1980s, echo branched out further with the introduction of transesophageal, Doppler, contrast, and stress echo techniques. By the 1990s, refinements in instrumentation, such as harmonic imaging, had dramatically increased the accuracy and precision of this imaging method.

Echo can look forward to even more exciting developments, Dr. Tajik predicted, offering just a glimpse of his vision for the future. The ability to image specific tissue characteristics will be an important trend. Further miniaturization of the technology will also play a key role, first by putting echo in the hands of more and more clinicians, and second, by giving rise to new invasive applications.

## International Lecture

Today, heart failure is a growing epidemic characterized by a dismal prognosis. In the future, it will be possible to restore damaged hearts—and lives—to full function. The keys to achieving this remarkable goal are innovation and integration, said **Magdi Yacoub, MB**, a professor of cardiac surgery at Royal Brompton and Harefield Hospitals in London, England U.K.

In the International lecture at ACC '03 titled "Lessons From the Titans," Dr. Yacoub will lay out his vision for the future of heart failure management. For new approaches to succeed, surgery must be combined with the best of basic science, pharmacology, and medicine, he said.

Already Dr. Yacoub and his colleagues are achieving remarkable results by combining surgical implantation of left ventricular assist devices with drug regimens aimed at first promoting reverse remodeling, then stimulating physiologically beneficial myocardial hypertrophy. Promising avenues of new research involve the addition of gene and cell transplantation therapies to further promote reverse remodeling and perhaps stimulate angiogenesis. Now being tested in animals, such innovations could be ready for human trials in two to five years, Dr. Yacoub said.

"We're very excited," he said. "Heart failure is reaching epidemic proportions. We need some innovative new thinking to deal with this problem." ○

## Spotlights (continued from page 1)

"We want to present a comprehensive look at interventional cardiology," said program Co-chair **Michael J. Cowley, MD**. "The program is geared mostly for interventionalists, but it's not so complex that a generalist wouldn't benefit."

With three program tracks running in parallel, the all-day Spotlight session, which is co-sponsored by the **Society for Cardiac Angiography and Interventions**, is packed with choices. In addition to returning sessions on acute myocardial infarction and the management of vascular complications, ACCIS '03 will again feature an annual favorite: a lively forum devoted to the management of coronary complications, such as acute occlusion, left main dissection, and coronary perforation.

ACCIS '03 will also take on one of interventional cardiology's most promising—and potentially controversial—advances, drug-eluting stents. In addition to a review of the basic science and pharmacology behind these devices, the session will include updates on three different drug-eluting stents and conclude with an analysis of their cost-effectiveness.

New this year will be a comprehensive program devoted to stroke, both its pre-

vention and acute therapy. Presentations will focus not only on carotid stenting and other procedures increasingly performed by cardiologists, but also on approaches that push the boundaries of percutaneous therapy, such as intracranial angioplasty.

More cutting-edge presentations will be found in a session devoted to vein graft interventions, including the investigational use of filter devices and covered stents, and the possible role of atheroembolectomy.

Finally, case demonstrations will run throughout the morning and showcase percutaneous interventions of complex lesions, as well as the use of specialized devices for closure of patent foramen ovale and blockage of the left atrial appendage in patients with atrial fibrillation. In a departure from previous years, the cases will be taped in advance, rather than presented live. This change will make better use of attendees' time and improve the quality of the cases, Dr. Cowley said.

"Presenters can be more selective in the cases they choose, because they'll be able to pick the best cases from the previous six or seven months. It will also leave additional time for discussion," he said. ○


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