



**4** Cardiothoracic surgery's legacy and opportunity



**6** Research awards advance innovative ideas



**8** Gifted educator receives national recognition



**10** Changing of the guard: Dr. Kern new cardiology acting chief

**Plus:**

Heart of the Matter luncheon Oct. 16

Green Valley lecture schedule

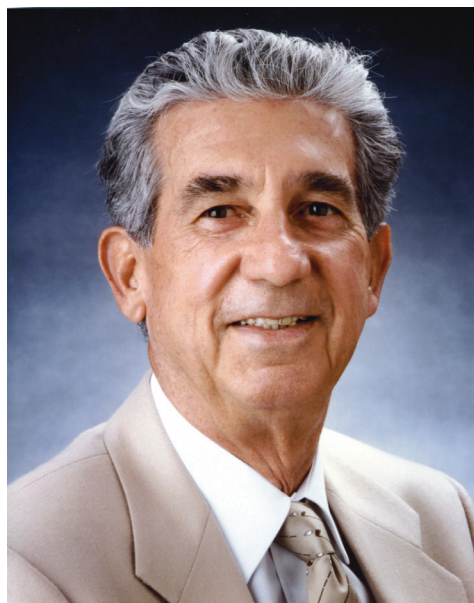
## A Significant Endowment Provides A Strong Foundation for Future Success

**F**or nearly three decades, Anthony Marnell Sr. made a career of using strong foundations to build nearly every hotel on the Las Vegas strip, most schools in Clark County, Nevada, numerous churches and hundreds of homes in the surrounding desert. As a brick worker and mason, Mr. Marnell literally helped to build this glittering city.

When Mr. Marnell's son George purchased the company in the 1980s, he was committed to building on his father's past success. Mr. Marnell's other son, Anthony Marnell II, is chairman of Marnell Corrao and Associates, a design-build company, which also is furthering the legacy of Mr. Marnell Sr. by continuing to build luxury resorts in Las Vegas.

Today, the Sarver Heart Center is building on a foundation established by Mr. Marnell through his estate to benefit cardiothoracic surgery. The Center is pleased to continue the legacy of the Marnell family through the **Tony A. Marnell Sr. Endowed Chair for Research in Cardiothoracic Surgery**.

This endowment was established at Sarver Heart Center in gratitude to Jack G. Copeland III MD, who performed a heart transplant on Mr. Marnell in 1989, giving him 12 more years of an active, happy life. The Marnell



*Tony Marnell Sr. understood the research behind the medical miracle.*

gift now will be used to help further the work of the Section of Cardiothoracic Surgery and honor the memory of a man who understood the importance of medical research and the resources that are required to advance medical science.

"Many people believe heart transplantation just happens as a benevolent service for all of us. My dad knew better. He understood it took an enormous amount of money and talent to develop and hone this

procedure. And, that it is not a right, but a privilege; that no matter how much you paid for the surgery, it would not ever truly cover the long-term costs of the research and development to make this procedure successful. His gift was an acknowledgement of that," said Tony Marnell II. ♥

### Marnell Endowed Chair

The UA Department of Surgery and the Sarver Heart Center are pleased to announce the appointment of **Michael J. Moulton, MD**, associate professor of surgery, to the **Tony A. Marnell Sr. Endowed Chair for Research in Cardiothoracic Surgery**. Dr. Moulton is currently interim chief, cardiothoracic surgery at the UA College of Medicine; surgical director of the Lung Transplantation Program; and director of the Cardiothoracic Residency Program. (See related story on page 3.)

## ...from the Director



This issue of the *Sarver Heart Center Newsletter* highlights change, recognition and progress. Recent events will provide us with the opportunity to rejuvenate our commitment to research, education and patient care by elevating well-qualified individuals to positions of leadership, recruiting additional world-class “physician scientists” and providing more

time for our members to continue progress in our well-established programs.

A favorite quote of mine – and a theme of this newsletter – is “the only thing that is constant is **change**.” Recent events at the University of Arizona, including those at the Sarver Heart Center, support this observation: Dr. Jack Copeland leaving and Dr. Michael Moulton stepping up; my stepping aside as the chief of the Section of Cardiology; Dr. Karl B. Kern stepping up to a new leadership position; and Dr. Julia Indik assuming leadership of the Cardiology Fellowship Training Program.

The second theme of this newsletter issue is **recognition**. Here the appointment of Dr. Moulton as the interim chief of the Section of Cardiothoracic Surgery and as the *Tony Marnell Sr. Endowed Chair for Research in Cardiothoracic*

*Surgery* is noteworthy. As is Dr. Vincent Sorrell’s national and local recognition for his expertise in teaching echocardiography and cardiovascular medicine.

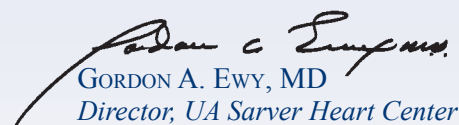
The third theme is **progress**. Progress is obvious in our new *Glenda and Jerry Jackson Heart Disease in Women Clinic*, the clinical component of our focus on research, education and service in the important area of heart disease in women.

Progress is also reflected in the number of Sarver Heart Center research seed grants we were able to award this year, thanks to those who provide financial support for this critical focus. (*See page 6 for a report on promising research funded by these awards.*)

Progress is also obvious in the announcement of the two named cardiovascular fellows, again supported by those who chose to “touch the future” by supporting education of the cardiologists of tomorrow. **Reza Arsanjani, MD**, and **Sasanka Jayasuriya, MD**, are the *J. Allen Ginn Jr., MD, Endowed Fellows*.

Chest-Compression-Only CPR is becoming more widely accepted as the preferred response to sudden cardiac arrest. Our YouTube training video has gone viral, with inquiries coming from all corners of the United States and viewers on every continent.

Enjoy this issue as we highlight the Sarver Heart Center’s change, recognition and progress, as we work closely with others here at the University of Arizona for better health for all.

  
GORDON A. EWY, MD  
Director, UA Sarver Heart Center

## Chest-Compression-Only CPR Video Spreads

Our Center’s favorite viral e-mail message goes something like this: “Watch this video. It really could save someone’s life.” With more than 2 million viewers of our Sarver Heart Center Chest-Compression-Only CPR training video, we’re thrilled to see a legitimate health message

spread across the Internet, reaching people on every continent. We even heard from a woman in Connecticut who received the video via e-mail and used the information a few hours later to help save a man’s life.

If you haven’t yet seen it, check it out at **www.heart.arizona.edu**. Click on “Be a Lifesaver.” Then, forward it to all your friends. This is one viral video worth sharing.

The UA Sarver Heart Center Newsletter is published three times a year - in spring, fall and winter. News reporters are welcome to quote from newsletter articles and are asked to provide credit. Correspondence or inquiries should be addressed to: UA Sarver Heart Center, Public Affairs, PO Box 245046, Tucson, AZ, 85724-5046. All contents © 2010 Arizona Board of Regents. The University of Arizona is an EEO/AA - M/W/D/V Employer. Please visit the UA Sarver Heart Center online: [www.heart.arizona.edu](http://www.heart.arizona.edu)

**Director** Gordon A. Ewy, MD  
**Co-Director** Carol C. Gregorio, PhD

**Director of Development**  
**Director of Communications**  
**Additional Writing**  
**Design / Production**

Clint McCall (520) 626-4146 or (800) 665-2328  
Katie Maass (520) 626-4083, [KMaass@SHC.Arizona.edu](mailto:KMaass@SHC.Arizona.edu)  
Clint McCall; Gordon A. Ewy, MD  
AHSC Biomedical Communications

If you need this information in an accessible format (braille, digital, tape or large print) please contact Katie Maass, (520) 626-4083.

# Endowed Chair Will Advance Heart Modeling Research



**M**ichael J. Moulton, MD, newly named to the ***Tony Marnell Sr. Endowed Chair for Research in Cardiothoracic Surgery***, is pursuing his heart modeling research with renewed enthusiasm and resources. A gifted surgeon and researcher, Dr.

Moulton, associate professor of surgery, is interim chief of the Division of Cardiovascular and Thoracic Surgery at the UA College of Medicine, surgical director of the Lung Transplantation Program and director of the Cardiothoracic Residency Program.

The endowment will enable Dr. Moulton to advance his research in mathematical modeling of the heart, working closely with other members of the Center. The novel model will generate dynamic solutions of equilibrium equations for the contracting heart. This will enable doctors to diagnose more precisely cardiac abnormalities and improve treatment options for heart failure patients.

“The Marnell Endowed Chair is a great honor. His generosity and foresight will allow us to increase our research activities. This work will benefit patients with heart failure and other serious cardiac problems,” said Dr. Moulton.

“We are very excited that Dr. Moulton, an innovative researcher and superb surgeon, was appointed to this endowed chair,” said Gordon A. Ewy, director of Sarver Heart Center. “We are grateful to the legacy that the Marnell family established through our Center.”

Dr. Moulton performs both heart and lung transplants, as well as coronary artery bypass, heart valve operations and aortic surgery. Under his leadership, the lung transplant program at University

Medical Center has made tremendous strides, performing more than 50 lung transplants in the last three years alone.

According to the Scientific Registry of Transplant Recipients, the UA has one of the better survival rates in the world. Known for accepting challenging cases, the program has performed five lung re-transplantations and a lung re-transplant for a patient on advanced life support. Currently, about 35 patients are on the lung transplant waiting list, with more added regularly.

Dr. Moulton graduated from Harvard Medical School in 1990, completed a general surgery residency at Washington University, Barnes Hospital in St. Louis, and a cardiothoracic surgery residency at Washington University. Combining his medical training with his bachelor’s degree in mathematics from Amherst College, Dr. Moulton developed mathematical techniques for studying myocardial function. He was awarded a National Research Service Award from the National Institutes of Health and published several articles on new techniques for determining myocardial material properties and measuring heart motion in three dimensions using MRI tissue tagging.

Prior to joining the UA, Dr. Moulton completed an eight-year tour of duty as a cardiothoracic surgeon in the United States Air Force, serving as chief of cardiothoracic surgery at Keesler AFB, Biloxi, Miss., before he and his family were relocated to Tucson because of damage to the base from Hurricane Katrina. He was assigned to Davis-Monthan AFB and practiced at the Southern Arizona Veterans Administration Health Care System. In September 2007, he was deployed as a thoracic surgeon to Balad, Iraq, in support of Operation Iraqi Freedom and served as surgical flight commander. He also was chief consultant to the Surgeon General of the Air Force for Cardiothoracic Surgery from 2003 to 2007. In May 2007, he joined the UA and the Division of Cardiothoracic Surgery.

Dr. Moulton is married to MaryLee (Guida) Moulton. They have three daughters, Erica 18, Alex 16 and Samantha 10.





*Paul Nolan, PharmD,  
anti-coagulation expert*



*Doug Larson, PhD, anti-rejection expert*



*Biomedical engineer Richard Smith received the Barney Clark Award in 2007 for "success in the clinical application of artificial hearts and heart assist devices against overwhelming odds and criticisms."*

## Celebrating a Legacy and Opportunity for the UA and the Sarver Heart Center



*Jack G. Copeland, MD*

**T**his past summer the University of Arizona bid a fond farewell to **Jack G. Copeland III, MD**, one of the founders of the Sarver Heart Center and a legendary pioneer of cardiac transplantation and artificial heart technology at University Medical Center.

"During the past few decades, Jack has been an innovator and

trail blazer in the field of heart transplantation and the advancement of artificial heart technology. He leaves an impressive legacy, for which we are grateful," says **Gordon A. Ewy, MD**, professor of cardiology and director of the Sarver Heart Center.

An internationally renowned cardiothoracic transplant surgeon, Dr. Copeland and his colleagues performed a series of firsts, including:

- The first heart transplant in Arizona in 1979, followed by more than 1,000 heart, lung, or heart and lung transplants at UMC.
- In 1985, the world's first successful bridge-to-transplant procedure, using an artificial heart to replace the severely diseased and failing heart of a patient who was so sick he would not survive the wait for a donor heart.

- In 2000, the first use of the "Berlin Heart" in the United States. This very small assist device helped a child's failing heart continue to pump while awaiting transplant. However, all were surprised when the child's rested heart regained its normal function, eliminating the need for transplantation. The UMC team became pioneers of not only using the artificial heart as a "bridge to transplant," but also as a "bridge to recovery" in children with severe, but reversible heart failure.

### It Takes a Team

"Dr. Copeland did not work in isolation; it was a team approach. Because of his pioneering efforts, he was the best known of our cardiovascular surgeons, but we continue to have a highly skilled group of adult and pediatric cardiovascular surgeons," says Dr. Ewy. These include **Michael J. Moulton, MD, Jonathan Daniels, MD, Gulshan K. Sethi, MD, M. Cristy Smith, MD, and Birger E. Rhenman, MD**, on the adult side, and **Michael Teodori, MD**, on the pediatric side.

"Part of our work as academic physicians is to train others who can take over leadership positions, and thus several heart transplant centers in this country are now being run by surgeons who we trained and who were on our faculty," says Gulshan Sethi, MD, professor of cardiothoracic surgery.

"The surgeon, while critically important, is not the only determinant of success of our cardiothoracic program. Each team member is important to the cardiac transplant and artificial heart programs," says Dr. Ewy.

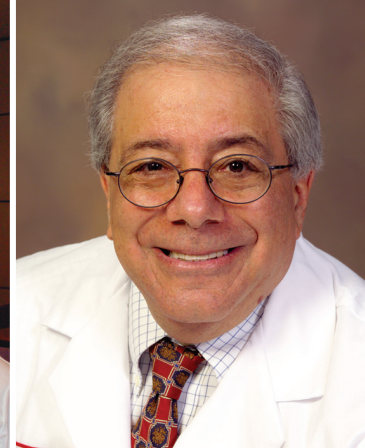




*Gulshan Sethi, MD,  
cardiothoracic surgeon*



*Transplant coordinators and a social worker guide patients to success (seated from left) Romana Coelho-Anderson, Joan Wild and Peggy Wiggins. (Standing from left) Isabell Hendricks, Martha Moutray (social worker), Sue Mullarkey and Nicci Mineburg*



*Mark J. Friedman, MD,  
heart failure specialist*

The UA and UMC team includes a number of pioneering superstars:

- **Paul Nolan, PharmD**, led the transplant pharmacy team. His research and clinical experience advanced the field of artificial heart anticoagulation. “Anticoagulation in these patients is very different and more complicated than for other cardiovascular patients as the artificial heart is more likely to develop blood clots that can break off and cause strokes. Many remember the recurrent strokes that beset and took the life of dentist Barney Clark, the first patient to have the Jarvik artificial heart in Utah years ago. Without the ability to prevent clotting, the artificial heart would no longer be used,” says Dr. Ewy.
- **Richard Smith, MSEE, CCE**, and his biomedical engineering team ensured the mechanical safety and reliability of the artificial heart drivers. These engineers are on-call day and night to assure that the artificial hearts and assist devices maintain power since a mechanical failure would be detrimental to the patients.
- The expertise of **Douglas Larson, PhD**, helped to develop the early anti-rejection regimens critical to the success of cardiac transplantation.
- Heart-failure specialist **Mark Friedman, MD**, and his colleagues continue to assure state-of-the-art care.
- In addition, the careful and compassionate work of the heart and lung transplant nurse coordinators and social workers, some of whom have decades of experience with the transplant program, is essential to the care of transplant patients.

“So, we thank Dr. Copeland and his colleagues for their decades of work that put together all of these essential

components of the successful heart and lung transplant and artificial heart programs,” says Dr. Ewy. “This legacy leaves us an excellent opportunity for growth and the expansion into new and even better approaches to the care of patients with cardiovascular surgical needs.”

“**Dr. Rainer Gruessner**, professor and chairman of the UA Department of Surgery, has done an outstanding job of recruiting top-notch surgeons from other academic centers in the United States to the University of Arizona health-care system. I have no doubt that he will expand the cardiothoracic surgical program by identifying others with proven track records of academic research and success, some in transplantation, some in artificial heart, and some with newer, minimally invasive surgical approaches to treat cardiovascular disease. Together these physicians and researchers will grow the program and continue the legacy of excellence in cardiovascular surgery that has made this program world-renowned,” says Dr. Ewy. ♥



*In 1985, UMC marked its first successful bridge to transplant when 25-year-old Michael Drummond received a new heart, following the use of a Jarvik 7 artificial heart. That Jarvik 7 now is in the Smithsonian Institution.*

# Donors Provide ‘Seed’ Funding for 14

***“Someone’s sitting in the shade today because someone planted a tree a long time ago.”***

*- Warren Buffett*

If our tree is a future free of heart disease and stroke, then the Sarver Heart Center along with 12 donor families have planted some very promising seeds! Thanks to these contributions, the Sarver Heart Center Scientific Advisory Committee has awarded more than \$157,000 this year to help nurture and grow 14 of the best research ideas submitted by Center members.

## Preventing Sudden Cardiac Death



*Claudine Messing, John Konhilas, PhD, Paulette Gootter and Rayna Gonzales, PhD.*

**The Steven M. Gootter Investigator Award** is named in memory of a beloved son, husband, father and friend whose life was cut short tragically by sudden cardiac arrest at age 42.

**Recipients: Taben Mary Hale, PhD,** assistant professor of basic medical

sciences, is focusing on cardiac remodeling, a significant risk factor for heart failure, in which collagen deposits (fibrosis) cause the heart to stiffen and malfunction. Building on recent studies that indicate inflammation is an early sign of cardiac remodeling and malfunction, Dr. Hale’s research may lead to drug targets to treat heart diseases.

**John P. Konhilas, PhD,** assistant professor of physiology, is studying the relationship between hypertrophic cardiomyopathy (HCM) and sudden death during exercise. (HCM is a condition where the heart muscle thickens.) Dr. Konhilas is working to identify clearer clinical predictors of sudden cardiac death in such patients.

## Pediatric/Congenital Heart Disease



*Jim Gieszl (right) with Parker Antin, PhD, a prior recipient of a research award who studies congenital heart disease.*

**The William J. “Billy” Gieszl Endowed Award for Heart Research** was established by the Gieszl family in memory of their son and brother to support basic and clinical scientific investigations of merit to improve diagnosis, treatment and prevention of congenital heart disease.

**Recipient: Nishant Kalra, MD,** cardiology fellow, is analyzing the new concept of left ventricular twist during heart muscle contraction. His goal is to determine if a decrease in the twist during contraction is an early sign of heart dysfunction. Improved diagnosis potentially will lead to earlier therapeutic interventions.

**The Stephen Michael Schneider Investigator Award for Pediatric Cardiovascular Disease Research** honors Stephen Schneider, who passed away at a young age in 1960, and supports his family’s wish to advance pediatric cardiology research.

**Recipient: Darniela Zarnescu, PhD,** assistant professor, molecular and cellular biology, is studying a molecular protein (RNA-binding protein, FXR1) and its role in the early development of heart muscle. The goals of this work are the identification of novel pathways and therapeutic approaches for pediatric cardiomyopathy and heart disease.

## Novel Cardiovascular Disease and Medicine

**The Mark and Emma Schiffman Research Award** was established at the UA Foundation in 1997 to support promising heart research at the Sarver Heart Center.

**The Phil and Bobbie Hanft Young Investigator Award** is an endowment that supports scientists who need seed funds to pilot novel study concepts that will establish a base for future funding.

**Recipient: Karl B. Kern, MD,** will use this grant to fund a student-researcher who will acquire and enter data into a multi-centered registry of post-resuscitation care. This multi-center study will analyze the neurological status of 500 cardiac arrest patients who were resuscitated and then treated with therapeutic hypothermia and emergency heart catheterization. This clinical data will help improve standards of care and neurological outcomes for post-resuscitated cardiac arrest patients.

**The Frank Frazer and William Alexander “Alex” Frazer, MD, Young Investigator Award** funds innovative and creative research projects that need further development to qualify for outside funding.

**Recipient: Paul McDonagh, PhD,** professor of surgery, noting that some successfully resuscitated cardiac arrest patients do not survive hospitalization, is studying the timing and process of hypercoagulation, a post-resuscitation syndrome that causes blood clots to develop rapidly, often blocking blood vessels and blood flow to organs.



# Sarver Heart Center Research Projects



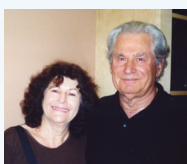
*Carol Gregorio, PhD, professor of molecular, cell biology and anatomy, is studying the basics of how the heart develops.*

**The William and Dorothy Bramble Shaftner Endowed Award for Heart Research** was established to support projects that “are in the area of most compelling need for heart disease research.”

**Recipient: Carol Gregorio, PhD**, professor of cell biology and anatomy, is studying a basic question: How does the heart develop? Using geometric guidance and cell-to-cell interactions, Dr. Gregorio is determining the physiology of how the heart muscle organizes itself during development. This will lead eventually to novel approaches in regenerative medicine.

**Doris Griswold Research Award** is given to further research that will improve the human condition.

**Recipient: Kirsten Osterlund, BA**, graduate student, is studying how sex hormones regulate inflammatory signaling molecules, which will increase understanding of the prevention and treatment of heart disease and stroke in men and women.



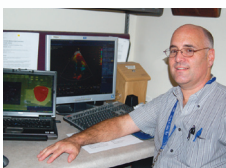
*Herb and Aphrodite Rubin support promising research.*

**Herb and Aphrodite Rubin Research Award** is given to further promising research.

**Recipient: Elizabeth Juneman, MD**, assistant professor of medicine, is expanding on cell-based therapy research to repair the injured heart and improve function in cases of heart failure. Dr. Juneman and mentor Steven Goldman, MD,

have shown that bioengineered, biologically active heart-cell patches can mend injured heart muscle. Dr. Juneman will expand on this by implanting cells in different locations and measuring heart function. The goal is to develop a way to deliver transplanted cells to the failing heart.

**Marjorie Hornbeck Research Award** was given in 2007 through Mrs. Hornbeck's estate, in memory of her husband, Walter, who died of heart disease.



*Michael Moulton, MD, is working to improve functional capacity for heart failure patients.*

**Recipients: Michael Moulton, MD**, associate professor of cardiothoracic surgery, is developing a mathematical model of echocardiographic images of the beating heart to understand the changes in basic muscle properties that occur with heart failure. This will provide a basis for treatments

that improve survival and the functional capacity of patients.

**Jack Zhang, PhD**, assistant research scientist, pharmacology. Heart attacks cause damage or death to heart muscles. Prior studies have suggested that glucocorticoids inhibit cell death. Dr. Zhang's studies are aimed at determining if a specific form of glucocorticoid can protect against cell death that occurs with heart attacks.

## Heart Disease in Women

**Women of Color Community Award:** This grant was developed through the energetic efforts of Sarver Heart Center's Minority Outreach Program in recognition of cardiovascular disease as a leading cause of death among women of color.



*Leslie Ritter, PhD, RN, is mentoring a doctoral student who is studying stroke risk among African Americans.*

**Recipient: Leslie Ritter, PhD, RN**, mentoring doctoral student **Theresa Wadas, RN, MSN**, in a study that will measure the relationships among inflammatory genes, blood markers and traditional risk factors in African Americans with ischemic stroke. African Americans have excessively high death rates from stroke.

**Anonymous: Heart Disease and Women Research Award**, in honor of Robert Sarver for his long-term commitment to Sarver Heart Center.

**Recipient: Margaret Briehl, PhD**, professor of pathology, is testing a new drug to assess its ability to prevent congestive heart failure, a serious side effect caused by doxorubicin for women with breast cancer. She is exploring the clinical potential of a new class of drugs that would protect heart cells during cancer treatment.

## Undergraduate/Medical School Student Award

**The Margarito Chavez Memorial Young Investigator Award** is a tribute to Mr. Chavez, a visiting scholar in the UA Department of Chemistry, who was deeply committed to mentoring students interested in the sciences.

**Recipient: Rheana Techapinyawat, BS**, pre-medicine student, will measure the influence of androgens, such as dihydrotestosterone (DHT) and the over-the-counter pro-hormone supplement DHEA on blood vessel wall inflammation. Vascular inflammation is one of the factors in the progression of cardiovascular diseases. This study will help determine if DHT modulates the blood vessel damage. ♥

# Gifted Physician, Educator and Researcher Received Prestigious National Award

**M**entor. If you take away one word in this article about Vincent L. Sorrell, MD, it's that he is a mentor. The word showed up repeatedly in letters written by students, former cardiology fellows and colleagues who supported his nomination for the prestigious **Richard Popp Excellence in Teaching Award**, a national honor he received this June from the American Society of Echocardiography at its national meeting. It's a word Dr. Sorrell uses to explain his passion for educating the next generation of physicians and cardiologists. He hopes this enthusiasm for teaching and research will plant the seeds for a new crop of academic physicians. This commitment also was a reason he received the UA College of Medicine's Virginia Furrow Award for Excellence in Graduate Medical Education in 2009.

His numerous research projects reflect a "bedside-to-bench-and-back-to-bedside" approach. Because of his reputation as an excellent mentor, numerous students, residents, and cardiology fellows are eager to work with him. While many professors seek a small, successful team of co-workers and thus co-authors, Dr. Sorrell's publications include more than 100 co-authors who are students, residents, fellows and other collaborators.

Some of Dr. Sorrell's studies include: **Gootter Registry**. Supported by the Steven M. Gootter Foundation, the Gootter Registry is a Tucson initiative to prevent sudden cardiac death by the appropriate use of implantable cardiac defibrillators (ICDs). These pacemaker-like devices have the capability to deliver a defibrillation shock when necessary, much like a paramedic would do in the case of out-of-hospital cardiac arrest. These devices, while very effective (like having a paramedic follow you around all the time), are also very expensive.

Using the present criteria for implanting an ICD, many individuals get one who evidently do not need it. "In certain patient subgroups, only 5 percent of the ICDs are ever called upon to deliver a shock. In other words, 95 percent of these individuals do not need them. At the same time, others who may need them that are not identified by current criteria," says Dr. Sorrell. His research, which involves screening patients with cardiac MRI, shows promise in developing new and better criteria for implanting these potentially life-saving devices.

**WARCEF Clinical Trial** is a National Institutes of Health (NIH) study to determine

the effectiveness of warfarin vs. aspirin in reducing strokes in patients with poor heart function. Individuals with enlarged, poorly contracting hearts are at risk for developing clots in the main pumping chamber of the heart that can "break off," travel in the arteries to the brain and cause a stroke. This is a rare event, but one that needs to be prevented. The question is whether aspirin alone is enough to prevent this complication or whether warfarin is needed. This important clinical question will be answered by this WARCEF clinical trial.

**PROMISE** is another large NIH-funded study to determine the best way to distinguish whether the cause of chest pain is non-cardiac versus critical heart disease. Participants with chest pain who agree to participate in the study are randomized into one of two different imaging approaches for comparison. One approach uses the traditional functional testing, such as an exercise ECG, nuclear scan or echocardiographic stress test. The other is an anatomic test, using CT scanning.

**Lexiscan Clinical Trial** was seeded by a \$5,000 Sarver Heart Center **Philip and Bobbie Hanft Young Investigator**



*Dr. Sorrell, who is serving as a mentor on a research project with student Maggie Diller (left), explains the goals of the study.*





**Award** to Maggie Diller, a second-year medical student. With this start-up grant, Dr. Sorrell was able to obtain additional funding—\$100,000 from Astellas Pharma, maker of Lexiscan, the drug that will be used in this trial. The current standard for diagnosing myocardial (heart muscle) perfusion (blood flow) is a nuclear stress test that may take several hours to complete and requires the injection of radioactive materials. This study is comparing the nuclear stress test result with that obtained through a new echocardiographic approach that incorporates Lexiscan. “This study has the potential to improve the way we diagnose coronary artery disease by using a safer, faster and cheaper approach. If it turns out to be more accurate as well, then it would be a home run,” says Dr. Sorrell. And, it may also set a young, gifted medical student on a medical research path — continuing Dr. Sorrell’s mentorship agenda.

When introducing Dr. Sorrell at the national meeting, where he received the Popp award, Dr. Ewy pointed out that if there were an award for the “Renaissance Man,” Dr. Sorrell would be a candidate for that award as well. For when he isn’t mentoring, attending cardiology fellowship teaching conferences, seeing patients, reading heart scans or dreaming up new research questions, he boasts about his family, runs great distances, plays concert-quality piano and reads novels. “I have about six novels going right now,” he says. Knowing this, his most recent graduating imaging fellow bought him a Kindle as a token of appreciation. ♥

*Jeffrey Gregoire, RDCS, RRT, an echosonographer who nominated Dr. Sorrell for the Popp Award, describes him as the “essence of an effective mentor and physician in an academic setting.”*

#### ASE Business Meeting/Edler Lecture & Awards Presentation

7:00 am - 8:30 am in Ballroom 6AB

#### Incoming President's Address

Business Meeting & State of ASE Report Roberto Lang, MD, FASE  
Incoming President's Address by Sanjiv Kaul, MD, FASE

#### ASE 2010 Awards:

Lifetime Achievement Award:  
Itzhak Kronzon, MD, FASE

Meritorious Service Award:  
Harry Rakowski, MD, FASE

Richard Popp Excellence in Teaching Award:  
Vincent L. Sorrell, MD, FASE

Cardiac Sonographer Distinguished Teacher Award:  
Carol C. Mitchell, PhD, RDMS, RDCS, RVT, RT(R), FASE

Award for Excellence in Teaching in Pediatrics:  
Nancy A. Ayres, MD, FASE

Alan D. Waggoner, MHS, RDCS Sonographer Student Scholarship Recipients:

- Abraham Andresen, Santa Fe College, Gainesville, FL
- Elizabeth Leahy, Hoffman Heart Institute School of Cardiac Ultrasound, Hartford, CT
- Vladimir Masati, Johns Hopkins School of Cardiac Ultrasound, Baltimore, MD
- Karin Ozowski, El Centro College, Dallas, TX
- Heidi Rivisto, Mayo School of Health Sciences - Echocardiography, Rochester, MN

Honorary FASE Awards:

- Alessandro Distante, MD, FASE, Pisa University, Pisa, Italy
- Shintaro Beppu, MD, FASE, Osaka Seamen's Insurance Hospital, Osaka, Japan
- Noriochi Chono, MD, FASE, Nippon University College of Medicine



## The Heart of the Matter ..... Women and Heart Disease

### An Educational Luncheon on Heart Disease in Women

Join the UA Sarver Heart Center's Women's Heart Health Education Committee for an enlightening program that will bring you up to date on women and heart disease and stroke. “It’s all about women because our risks and symptoms are as unique as we are,” says Lori Mackstaller, MD. (Men can attend, too!)

**Gordon A. Ewy, MD**, professor of cardiology and director of Sarver Heart Center, will provide an update on our new, unique *Jerry & Glenda Jackson Heart Disease in Women Clinic*, and introduce an exciting group of speakers and topics, including:

- **Questions for your primary care doctor to prevent & diagnose heart disease and stroke**

**Lori Mackstaller, MD**, associate professor of clinical medicine and the Brach Foundation/Brodie Endowed Lecturer for Heart Disease in Women

- **Seize the Opportunity! We hold the power to decrease the incidence of stroke and heart disease**

**Kendra Drake, MD**, assistant professor of clinical neurology and medical director of University Medical Center's Primary Stroke Center

- **Treatments for Heart Disease in Women: What's Next?**

**Elizabeth Juneman, MD**, assistant professor of clinical medicine and director, non-invasive imaging, Southern Arizona VA Health Care System.

Plus, an update on the Minority Outreach Program.

**Saturday, October 16, 2010**

Registration at 11:30 a.m.  
Lunch & Program begin at Noon

Skyline Country Club  
5200 E. Saint Andrews Drive, Tucson

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# Changing of the Guard in Cardiology!



*The three cardiology section chiefs: Frank I. Marcus, MD (1969); Gordon A. Ewy, MD (1982); and Karl B. Kern, MD (2010).*

In 1969, when medical students in the first class at the University of Arizona College of Medicine were sophomores, Frank I. Marcus, MD, was recruited from Georgetown University as the founding chief of the Section of Cardiology. He brought with him a young Gordon A. Ewy, MD, whom he mentored. Having developed an intense interest in cardiac arrhythmias, Dr. Marcus went on sabbatical to France where he learned the latest approaches to these disorders. When he returned in 1982, he stepped aside as section chief to occupy the Flinn Foundation and American Heart Association Arizona Endowed Professorship in Electrophysiology. Only semi-retired, Dr. Marcus is still active in research and teaching.

Dr. Ewy was appointed cardiology section chief in 1982. Having served in this role for 28 years, he recently decided that it was time for younger leadership and made way for Karl B. Kern, MD, to assume the responsibilities of cardiology section chief on July 1, 2010. Dr. Kern was mentored by and collaborated with Dr. Ewy in resuscitation research for years. He also demonstrated leadership as one of

University Medical Center's chiefs of staff, making him the natural choice to be appointed as acting chief of cardiology, said Thomas Boyer, MD, head of the Department of Medicine. Dr. Kern will continue his other administrative responsibilities, including serving as director of the Cardiac Catheterization Laboratories and Interventional Cardiology Fellowship Training Program. (*See related story.*)

Dr. Ewy, who has served as director of the Sarver Heart Center since 1991, will continue in this role. He also will continue resuscitation research, publications, lecturing and patient care.

"The greatest advantage to me is that I no longer will take cardiology weekend and night-call. It was fun and exciting coming in at all hours to do an emergency cardiac catheterization, care for a serious arrhythmia or remove fluid from around a patient's heart that was causing cardiac tamponade, but after 41 years, the grueling schedule of a clinical cardiologist becomes a bit much," says Dr. Ewy. "I am delighted and excited that Karl will now take on the important job of leading by example."



## Endowed Cardiology Fellows

### *Dr. Karl B. Kern*

#### **Takes the Reins as Acting Chief of Cardiology**

Karl B. Kern, MD, professor of medicine and chair of the Sarver Heart Center Resuscitation Research Group, is now acting chief, Section of Cardiology in the UA Department of Medicine, following Gordon A. Ewy, MD, who elected to step aside as cardiology section chief after 28 years. "In my experience, I've seen that the best leaders are those who combine integrity, compassion, knowledge, commitment and vision to bring out the best in other people. Karl embodies these qualities, and I'm delighted that he will lead our internationally renowned cardiology section at this point in time," says Dr. Ewy, who continues as director of Sarver Heart Center.

Drs. Ewy, Kern and their colleagues have spearheaded decades-long research in resuscitation, developing chest-compression-only CPR and a new approach for paramedics called cardiocerebral resuscitation. Together, these new methods have been shown to improve dramatically survival of patients with cardiac arrest.

Dr. Kern is director of the Cardiac Catheterization Laboratory at University Medical Center, and director of the Interventional Cardiology Fellowship Program. He will retain these duties as well.

He is a fellow of the American College of Physicians; Clinical Cardiology Council; Cardiopulmonary, Perioperative, Critical Care Council of the American Heart Association; American College of Chest Physicians; American College of Cardiology; and Society for Cardiovascular Angiography and Interventions.

Dr. Kern has received numerous honors for excellence in teaching at the UA College of Medicine. He was voted House Officer Educator of the Year and is on the Dean's List for Excellence in Teaching, besides receiving numerous awards for teaching and mentoring throughout the years. He has been a visiting professor on most continents.

Dr. Kern has served in several American Heart Association and American College of Cardiology (ACC) leadership roles, including past chairman of the Emergency Cardiac Care Committee and a past governor for Arizona for the ACC. Dr. Kern has been named one of the "Best Doctors in America" annually since 1996. He is an active cardiology interventionalist.

Dr. Kern's research interests are in cardiopulmonary resuscitation and coronary blood flow. He has been awarded numerous American Heart Association grants, an AHA-Flinn Young Investigator award and two three-year awards from the Arizona Disease Control Research Commission in the area of basic CPR research. He has published more than 140 peer-reviewed scientific articles.

Dr. Kern graduated magna cum laude from Brigham Young University. Following his graduation, he attended Hahnemann Medical College in Philadelphia, where he graduated Alpha Omega Alpha. His postgraduate education and cardiac fellowship training were at the University of Arizona.

We once again remember Dr. J. Allen Ginn Jr. who "chose to touch the future" by supporting the education of the cardiologists of tomorrow. The endowed fellows for this year are **Reza Arsanjani, MD**, and **Sasanka Jayasuriya, MD**.

The J. Allen Ginn Jr., MD, Endowed Fellowships were established by Dr. Ginn to support promising clinical fellows. "He was a patient's doctor who treated all patients with the best care and utmost respect. May the cardiology fellows who receive this award understand what it means to be that kind of doctor," said Mary Ann Ginn, his widow.

"These third-year cardiology fellows were selected for their outstanding abilities in clinical cardiology. They both have further served the fellowship program by providing their ideas and inspirations to make our program continue to improve from

year to year," said Julia Indik, MD, PhD, associate professor of medicine, *Flinn Foundation and American Heart Association Endowed Chair in Electrophysiology*, and director of the Cardiology Fellowship Program.



*Sasanka Jayasuriya, MD*



*Reza Arsanjani, MD*

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# Join Sarver Heart Center Members for the Green Valley Lecture Series 2010 – 2011

*Presented by Green Valley Recreation, Inc.*

- Oct. 21, 2010 Congestive Heart Failure, Types and Treatments**  
Steven Goldman, MD, professor of cardiology, University of Arizona College of Medicine, and chief of cardiology, Southern Arizona Veterans Administration Health Care System
- Nov. 18, 2010 Heart Disease & Women**  
Lorraine Mackstaller, MD, associate professor of medicine, UA College of Medicine, and the *Brach Foundation/Brodie Endowed Lecturer for Heart Disease in Women at UA Sarver Heart Center*
- Dec. 16, 2010 Cardiovascular Tests and Results:**  
*What are we looking for and what happens next?*  
Karl B. Kern, MD, professor and acting chief of cardiology, UA College of Medicine
- Jan. 20, 2011 Preventing Heart Attacks**  
Gordon A. Ewy, MD, professor of cardiology, UA College of Medicine; director of UA Sarver Heart Center; the *Gordon A. Ewy, MD, Distinguished Endowed Chair of Cardiovascular Medicine*
- Feb. 17, 2011 Different Strokes for Different Folks....stroke risk, prevention and treatment in diverse populations**  
Leslie Ritter, PhD, RN, FAAP, professor, UA College of Nursing and College of Medicine Department of Neurology
- March 17, 2011 Abnormal Heart Beats**  
Peter Ott, MD, associate professor of clinical medicine, UA College of Medicine; director, Cardiac Electrophysiology Laboratory; *Peter Ott, MD, Endowed Chair of Electrophysiology*

**Free and open to the public. Presentations are held October through March, the third Thursdays at 10 a.m., at Canoa Hills Social Center, 3660 S. Camino del Sol, Green Valley. No reservation required. Refreshments provided.**