A construction business owner's hand was reconstructed by Drs. Tolga Turker and Jiyaao Zou after a table saw accident. The surgery required reattaching blood vessels, nerves, tendons, and bones.

Microsurgical Reconstruction Restores Form and Function

A surgeons specializing in innovative microsurgical reconstruction techniques provide state-of-the-art treatment options to patients to restore form and function lost to injury or cancer. Using a microscope and sutures 10 times thinner than a hair, surgeons in the Divisions of Otolaryngology and in Reconstructive and Plastic Surgery rebuild body parts by transferring tissue from one area of the body to another, reattach severed body parts by reestablishing both nerve and vascular connections, and make the body whole again by transplanting donated hands and limbs.

Head & Neck Surgery

The microsurgical reconstruction work performed by Audrey Erman, MD, and Thomas Gernon, MD, in the Division of Otolaryngology – Head and Neck Surgery, is all about restoring function, since they operate in such a narrow area linked so closely to vital functions, such as breathing, swallowing, and speaking.

As co-directors of the Head and Neck Oncology Program, Drs. Erman and Gernon are experts in the treatment of head and neck malignancies. These include larynx, pharynx, sinuses, melanoma and other skin cancers, salivary glands, thyroid and parathyroid, tongue, lips, and oral cavity. Often, surgical removal of malignant tumors in the head and neck leads to disabling cosmetic deformities and functional disabilities, such as being unable to talk or swallow.

One of the most important advances in reconstructive surgery has been the development of procedures for microvascular tissue transfer. These techniques involve harvesting flaps of healthy tissue with their blood supply from remote sites in the body and implanting the tissue in the surgical site to reconstruct areas, such as the upper or lower jaw, tongue, lips, or pharynx.

By combining surgical innovations in microvascular techniques, Drs. Erman and Gernon significantly improve the overall treatment for many of these head and neck diseases, increasing
Chairman’s Message

This past academic year has been remarkable for our department. We have grown to 88 faculty members (from 35 in 2007). This expansion, rare in public universities today, helped prepare our trauma team for its outstanding management of the horrendous shooting on January 8, 2011, that tragically killed six members of our Tucson community and wounded 13, including Congresswoman Gabrielle Giffords, who continues to recover.

As our department experiences exceptional growth and national, even international, attention, we are focused on maximizing our strengths and building on our successes. Our faculty members now offer services never before seen in Arizona yet very much needed, bringing a new level of expertise and the highest quality of surgical care to our patients in the Southwest.

We have recruited dynamic new leaders in cardiothoracic, reconstructive, and head and neck surgery. In the field of minimally invasive cardiothoracic surgery, we have become the second busiest medical center in the U.S. Highly specialized hand and upper-extremity surgery is now available 24/7. Our growing transplant programs recently reached the milestone of 100 kidney transplants performed in one year; moreover, our one-year outcomes for kidney recipients are higher than the national average. And we have performed more than 30 autologous (self-donated) islet cell transplants for patients undergoing a total pancreatectomy.

Grant awards and other research dollars have significantly increased; currently, 19 faculty members are funded. New projects supported by the National Institutes of Health aim to improve minimally invasive surgery, develop new drugs for patients with brain tumors, and devise new technology for organ and cell transplants.

Our number of categorical general surgery residents has increased from six to eight, making ours one of the largest programs in the country. Our neurosurgery residency program increased from six to seven years, with seven approved positions. We have added three new fellowship programs and incorporated the latest simulation technologies into our expanded training laboratories.

Our residents and fellows have more opportunities to participate in cutting-edge research. Five residents have earned their MS/PhD degree from our Medical Sciences Graduate Program since its inception in 2010, supported by an endowment. Departmental fundraising efforts, implemented in 2009, have so far raised more than $3.6 million for our teaching and research programs.

As we move forward, our faculty, staff, residents, and students remain ready to meet new challenges. Our goal is nothing less than becoming the premier clinical, teaching, and research surgical department in the Southwest.

Sincerely,

Rainer W.G. Gruessner, MD
Professor and Chairman
UA Department of Surgery

Quality Patient Care

Reconstruction
CONTINUED FROM PAGE 1

function and quality of life of the patients undergoing surgery.

“The goals in the surgical treatment of head and neck cancer are first, to completely remove the tumor, and second, to restore function and aesthetics in a single-stage operation. While these goals were difficult to achieve a decade ago, it is now possible with the techniques of microvascular free-tissue transfer: the new standard of care,” Dr. Erman said.

In a recent case, they treated a patient with tongue cancer. After removing the tumor, they transferred tissue from his forearm to rebuild his tongue so he could speak, eat, and breathe normally just a week after surgery.

“When we just need skin and fat to make a tongue, we can transfer the tissue from the forearm or even a thigh if the patient is really thin. It all comes down to the patient’s specific case,” Dr. Gernon said.

Working in tandem on complicated surgeries, Drs. Erman and Gernon are able to dramatically cut down on the amount of time patients spend in the operating room. While one removes a tumor, the other immediately begins reconstructing the site.

“Many of us go into otolaryngology because this is how people interact with the world,” Dr. Erman explained. “When you have a cancer that affects tongue, lip, or jaw, we’re restoring the ability to eat, breathe, communicate, and even blow kisses to grandchildren. Being part of regaining those functions is quite rewarding.”

Hand & Upper Extremity Surgery

Traumatic injury to an individual’s upper extremity – be it the shoulder, arm,
hand, or finger – can significantly impact quality of life. A loss of function in one of these areas is a devastating blow to recovery and to any hope of returning to a normal life.

As members of the Division of Reconstructive and Plastic Surgery, Warren Breidenbach III, MD, Tolga Turker, MD, and Jiyao Zou, MD, specialize in microsurgical transfer of bone, tissue, and nerve, as well as free or pedicled skin flaps to repair wounds, injuries, or defects to the upper extremities and to restore sensation and movement. They also are trained to perform composite tissue allotransplants (the transplantation of tissue or limbs from deceased donors).

Whether their patients come in electively or with trauma, these surgeons have the combined skills of reconstructive, plastic, and vascular surgeons, eliminating the need for multiple providers and resulting in less duplicated care and shorter recovery time. They have particular expertise in the treatment of all types of hand surgeries, including transplanting hands and replanting severed digits.

“Restoring function is our number one priority,” said Dr. Zou. “After an accident, we are able to save a patient’s thumb or finger by performing a replantation, which includes bone fixation and tendon, artery, and nerve repair.

“We use a vein graft from the forearm in order to keep the length of the digit. If the digit is not replantable, as with a fingertip injury, we can salvage the finger’s length using different kinds of flaps,” Dr. Zou explained.

Other types of microsurgical reconstruction on extremities performed by Drs. Zou and Turker include wound coverage.

“We can use both pedicled and free flaps to cover the tissue defects. Flap coverage can be successfully done and will provide a better outcome with severe upper extremity injuries,” said Dr. Turker.

Drs. Zou and Turker were brought on board by Dr. Breidenbach, the new chief of the Division of Reconstructive and Plastic Surgery.

Dr. Breidenbach came to the UA from the Christine M. Kleinert Institute for Hand and Microsurgery in Louisville, Ky., where he performed the world’s first successful complete hand transplant. He is interested in expanding the types of transplants performed at the UA to other areas of the body, including face transplants.

“There’s always been a need for this kind of specialized microsurgical restoration,” Dr. Breidenbach said. “We now have highly qualified hand surgeons available 24/7.”

**Breast Surgery**

Unlike some of the other areas of the body where microsurgery techniques are used, form outweighs function in breast reconstruction.

**Ethan Larson, MD, in the Division of Reconstructive and Plastic Surgery, offers state-of-the-art microsurgery breast reconstruction techniques after mastectomy to help women recovering from breast cancer begin to feel whole again.**

DIEP (deep inferior epigastric perforator) and TUG (transverse upper gracilis) flap procedures use skin, tissue, and tiny blood vessels taken from either the patient’s abdomen or inner thigh area to form a new breast. The breast reconstruction flaps are much larger than most other flaps used in other microsurgical procedures, but the technical aspects are not so different from other areas of the body, Dr. Larson said. These particular flaps are often made up of the patient’s own skin and fat, without the need to sacrifice a functional muscle.

“The surgery itself is quite lengthy, so completing the dissection of the flap in a timely fashion is often the most difficult portion of the procedure, along with the added challenge of shaping an attractive breast from abdominal tissue – one that matches a remaining breast,” he said.

Dr. Larson is one of the few surgeons in Southern Arizona to offer microsurgical free-flap breast reconstruction. “I do all types of microsurgery, but breast reconstruction seems to answer the biggest need,” he said.
Surgery Shows Its Strengths During Tucson’s Tragedy

It’s been more than a year since the UA Department of Surgery, The University of Arizona Medical Center, and Tucson were thrust into the international spotlight after the Jan. 8, 2011 shooting that killed six and injured 13 others, including Arizona Congresswoman Gabrielle Giffords. It was a day of sadness for the Tucson community and a day that tested a hospital’s preparedness for dealing with an event that captured international attention.

As Giffords clung to life on Jan. 8, media from across the globe descended on the hospital, clamoring for updates on the condition of the congresswoman, who’d been shot through the left side of her brain in an assassination attempt.

For Peter Rhee, MD, chief of the Division of Trauma, Critical Care, and Emergency Surgery and a Navy combat veteran who treated soldiers with battlefield injuries in Iraq and Afghanistan before coming to the UA, mass casualties and gunshot wounds are a routine part of the job. The media frenzy that followed on Jan. 8 was not.

Although the circumstances attracting the media attention were grim, the event also provided the UA Department of Surgery and the hospital with a unique opportunity to show the public the high-caliber of the surgeons and staff recruited to the UA and the high quality of care available at The University of Arizona Medical Center.

Southern Arizona’s Level I Trauma Center

It’s hard to say how the aftermath of the Jan. 8 shooting might have been different had Tucson not had a Level I Trauma Center to meet the shooting victims’ needs.

“In the past four years, the University of Arizona and The University of Arizona Medical Center have supported and invested heavily in the Department of Surgery and in trauma, starting with my hiring Dr. Rhee,” said Rainer W.G. Gruessner, MD, UA Department of Surgery chairman. “As a result, the surgery department has grown since 2007 from 35 faculty members to 88 faculty members. This robust expansion, rarely seen today at public universities, permitted our instant and in-depth readiness for managing such large-scale trauma.”

“We let the world know that we are performing at the same level as the best in America in academic medicine,” said Michael Lemole, MD, chief of the Division of Neurosurgery in the UA Department of Surgery. “People now understand that this is a sophisticated town with an academic medical center and surgery department that are reputable on a national level.”

Today, Giffords continues her recovery. In September, she hosted a special dinner in Tucson for a handful of employees from The University of Arizona Medical Center – University Campus. On the one-year anniversary of the tragedy, she attended a vigil, which drew about 3,500 people, on the UA main campus lawn.

The Department of Surgery and the trauma division continue to grow under the guidance of Dr. Gruessner and Dr. Rhee, who says he’s at about stage five of a 10-stage expansion plan. Since joining the medical center about four years ago, Dr. Rhee has already grown the division from two to nine trauma surgeons. Future plans include adding a burn unit, increasing trauma research, and building areas like the hospital’s extremity transplant and in-house rehabilitation programs.

The effects of the media attention have been lasting. People fly into Tucson now for surgery from as far away as Boston because of their confidence in the medical center. Both Dr. Rhee and Dr. Lemole continue to receive requests to speak publicly about the hospital’s response to the tragedy, and Dr. Rhee, a Korean-American, has even been asked to help establish a trauma system in Korea modeled after what’s in place at The University of Arizona Medical Center – University Campus.

“I think we are going to be recognized for this particular event for a long period of time,” Dr. Rhee said.
Minimally Invasive Surgery Performed for Major Health Problems

In the past, surgery often involved long incisions and lengthy recovery times. The UA Department of Surgery brings the latest minimally invasive and robot-assisted advances for even very complex procedures, resulting in faster recovery times and less pain, less scarring, and less blood loss.

Heart Surgery Without Opening the Chest

Arizona retiree Jon Paulus needed heart bypass surgery. Paulus, who is diabetic, was an ideal candidate for robot-assisted surgery.

Typically, coronary bypasses don’t last as long in diabetics, so surgeons prefer to use arteries that come from the chest wall, not the leg. However, the two internal mammary arteries, which are stronger, cannot be used when the sternum is cracked open.

“The beauty of robotics is you don’t cut the sternum,” said Robert Poston, MD, professor and chief of the Division of Cardiothoracic Surgery. “And there is less risk of infection; diabetics in particular are at risk for infection.”

Since Dr. Poston’s arrival at the UA Department of Surgery a year ago, The University of Arizona Medical Center has become the second busiest medical center in the U.S. for robot-assisted heart surgery. Dr. Poston, nationally known for his work with using robotics for cardiac bypass surgery, and Allen Raczkowski, MD, newly appointed UA assistant professor, are the only surgeons in Arizona who perform the robot-assisted heart procedures.

Dr. Raczkowski is recognized as one of the pioneers in using the da Vinci robot for minimally invasive coronary operations; he performed hundreds of robot-assisted heart surgeries in Phoenix before joining the UA. His specialty is robot-assisted heart valve surgery, such as mitral valve repair or replacement and robot-assisted aortic valve surgery.

With robot-assisted surgery, surgeons are able to access the heart through four robotic arms and four tiny incisions. Patients who qualify for the robot-assisted surgery are usually out of the hospital within three days, unlike the six days required for traditional surgery. Recovery time is cut from as long as 10 weeks to only three or four weeks.

“One of the main reasons to do minimally invasive surgery is patient satisfaction,” said Dr. Poston. “With traditional heart surgery, a lot of patients go to their grave refusing to do it because of fear. Patients like the concept of minimally invasive better.”

Dr. Poston explained that robot-assisted surgery was approved by the FDA a dozen years ago, but its use for cardiac procedures has been slow because of the lengthy learning curve. Yet patients are seeking it out, and are now coming from outside of Arizona to have it performed at UAMC.

Heart disease afflicts 16 million Americans and is the leading cause of death in the U.S. More than 200,000 heart bypass surgeries are performed annually. Dr. Poston, who has performed more than 350 robot-assisted bypass surgeries, said the procedure requires a great surgical team, like the one at the UA.

Surgery Head and Shoulders Above the Rest

Because their tumors often are difficult for surgeons to reach, the estimated 60,000 people in the U.S. diagnosed each year with cancer in the head and neck have had to face very invasive, open surgery. With the recruitment last year of Alexander Chiu, MD, the new chief of the Division of Otolaryngology – Head and Neck Surgery, the division has grown to six full-time faculty, bringing advanced minimally invasive techniques and state-of-the-art treatments for diseases and disorders of the head and neck.

Through the Nose

Skull base tumors are in the part of the brain where many vital structures are located. Previously, surgeons had to perform the operation by splitting the facial skeleton or peeling back the scalp and removing the skull on the forehead.

Combining the skills of ear, nose, and throat surgery and brain surgery, Dr. Chiu and Michael Lemole, MD, chief, Division of Neurosurgery, are able to remove skull base brain tumors entirely through the nose and sinuses without incisions to the face or skull.

“This ‘through-the-nose approach’ avoids the need for any facial incisions or a craniotomy, so complications are decreased, recovery is faster, and patients are spared unsightly incisions,” said Dr. Chiu.

During the procedure, the endoscope is inserted through the nose and sinuses to directly reach the tumor, without manipulating the brain or important nerves. The tumor and surrounding area are brightly lit by the endoscope,

Comparison of incisions in traditional vs. robotic minimally invasive heart surgery
Minimally Invasive Surgery
CONTINUED FROM PAGE 5

which has a tiny camera that sends real-time video images to a large screen. Specially designed surgical tools are inserted next to the endoscope to dissect and remove the tumor.

The surgery also incorporates Brain-Lab Neuronavigation, a computer-assisted guided imaging machine. “It acts like a GPS system to help us locate and map the tumor,” Dr. Chiu said.

Throughout the operation, surgeons have an excellent view of surrounding tissue, helping them to preserve important nerves and arteries that control vision and other functions. Because the brain is not disturbed, the recovery time after surgery typically is days, instead of weeks or months.

Transoral Robotic Surgery (TORS)

Newly appointed head and neck surgeon Thomas Gernon, MD, assistant professor, is the first in Southern Arizona to offer new minimally invasive surgical options for patients with cancer of the throat and mouth.

Transoral robotic surgery (TORS) is a robot-assisted, minimally invasive technique that allows access to areas of the throat that are difficult to reach and traditionally have required large incisions in the neck and face. Using the da Vinci surgical robot, surgeons have three-dimensional images and enhanced precision, permitting the procedure to be performed strictly through the mouth, eliminating cosmetic disfigurement and improving quality of life.

No-Scar Weight-Loss Surgery

Obesity can spur a host of critical illnesses. Studies show that weight-loss treatments save lives. Minimally invasive approaches offer the same potentially lifesaving results as traditional open weight loss surgery, but with significantly less pain and fewer complications.

Carlos Galvani, MD, UA associate professor of surgery and director of Minimally Invasive, Robotic, and Bariatric Surgery, is performing a new surgical weight-loss procedure at The University of Arizona Medical Center that is so minimal it leaves no scar. Requiring only one tiny half-inch incision in the navel, single-incision laparoscopic weight-loss surgery is safer, with a shorter recovery time.

With single-incision laparoscopic banding surgery, Dr. Galvani enters the abdomen through the navel, using three instruments and a camera to guide the way. The procedure lasts 30 to 45 minutes. A band is wrapped around the upper part of the stomach, creating an hour-glass shape. When eating, patients get full faster, and the band is adjusted, determining the rate of weight loss.

Bariatric surgery reduces the size of the stomach of morbidly obese people, Dr. Galvani said, but only a few surgeons have been trained to perform the procedure. A single-incision approach also has been successful with sleeve gastrectomy, another bariatric surgery.

“Patients appreciate the lack of scars after surgery,” Dr. Galvani said. “And there are fewer complications like infection or hernia. Less cutting also means less pain.”

He said 92 percent of people with this procedure go home the same day.
One Year, 100 Kidney Transplants

Felipe Pinedo, Jr.’s surgery Dec. 13, 2011, marked the University of Arizona Transplant Program’s 100th kidney transplant for the year.

Pinedo’s niece, Andrea Torres, 34, donated a kidney to her 57-year-old uncle, who suffered from end-stage renal disease due to complications of diabetes. He had been on dialysis for about three years. Six days after the surgery, Pinedo was “raring to go,” refusing the wheelchair ride to the lobby after his release from the hospital.

Performed at The University of Arizona Medical Center – University Campus by Rainer W.G. Gruessner, MD, and Tun Jie, MD, the year’s 100th kidney transplant is the most the hospital has ever done in one year. The transplant program performed 90 kidney transplants in 2010 and 80 in 2009. The numbers of lung, pediatric liver, and intestine transplants are projected to see increases as well.

Since the program was revitalized in 2007, about 400 kidney transplants have been performed, 98 from living donors. Dr. Gruessner, chairman of the UA Department of Surgery and chief of the Division of Abdominal Transplantation, and Bruce Kaplan, MD, medical director of the Kidney Transplant Program, attribute some of the growth to more live donor kidneys, recent advances in immunology and technologies, and less invasive surgical procedures for the donor.

“We have seen a substantial increase in living donated kidneys over the past three years,” said Dr. Gruessner. “With more people on transplant lists than ever before, leading transplant teams like ours are turning more and more to live kidney donation.

“This is good news because the life expectancy of a living donor kidney is about 20 years on average, twice as long as a kidney from a deceased donor. Deceased donor kidneys are in very short supply, and there are 90,000 people waiting for kidney transplants.”

Recent advances in immunology and technologies have allowed centers to overcome blood type and immune incompatibility. In the past, this incompatibility would rule out a donor and recipient pair. The UA transplant program has particular expertise to offer therapies to increase compatibility and reduce the possibility of organ rejection.

Also, new surgical techniques, including minimally invasive kidney extraction, are making it easier to donate a kidney to someone in need.

For patients like Pinedo, a transplant provides a better quality of life than the grueling three-days-a-week dialysis treatments. They can return to work, travel, and spend time doing the things they enjoy.

“I run racing horses with my brothers and before the transplant I couldn’t travel with them,” said Pinedo, a retired tire store owner. “Now I can go with them.”

Since the Transplant Program was revitalized in 2007, UA surgeons have performed about 400 kidney transplants, 98 from living donors. One-year outcomes for adult kidney transplants are higher than the national average.

Comprehensive Transplant Center

Last May, the UA Department of Surgery announced that the UA has one of the most comprehensive programs in all areas of adult and pediatric transplants, including:

- **Solid-organ transplants**, which include kidney, liver, pancreas, intestine, heart, and lung transplants
- **Cellular transplants**, which use islet cells to treat, or even prevent, insulin-dependent diabetes
- **Composite tissue transplants**, including hand transplants and face transplants, for patients who have suffered limb loss or extensive facial disfigurement
New Technology Extends the Life of Donor Organs and Islet Cells for Transplant

The University of Arizona Department of Surgery and other highly specialized transplant centers around the world are furthering the next generation of treatments for organ failure and for type 1 diabetes.

New technology pioneered by researchers at the UA Department of Surgery and small business collaborators could profoundly extend the viability of organs and pancreatic islet cells, expanding the global reach of transplant centers and allowing for more critically needed transplants.

Islet cell allotransplants involve collecting islets from a donor pancreas and infusing them into the liver of a person with life-threatening brittle diabetes mellitus. The cells produce insulin from the liver, often curing the patient’s diabetes.

Getting a donated pancreas and its cells to the patient in time is challenging, as the organ and its islet cells can die during transportation. The longer the transportation process takes, the more tissue dies. Surgeons race against time, especially in cases where the organ must travel a great distance.

Klearchos K. Papas, PhD, and his team are evaluating a relatively simple method of preserving organs through improved oxygenation. They have created the tools necessary to preserve and transport not only pancreata that are to be used to isolate and purify islet cells, but also other organs.

“For example, this technology could extend the life of hearts, increasing the number of viable organs available for transplant,” said Dr. Papas, professor of surgery in the Division of Abdominal Transplantation and scientific director of the Institute for Cellular Transplantation. Dr. Papas believes the technology can extend the life of a donated heart to 12 hours or more, as opposed to the four to six hours currently acceptable, allowing for better matches, access to more patients, and reduced cost.

Dr. Papas and his team have advanced the technology through funding by the National Institutes of Health (NIH) Small Business Innovation Research Program. Dr. Papas, an engineer, came to the UA in 2011 from the University of Minnesota. He and his team conducted early proof-of-concept research through seed funding from private donations from the Iacocca Family Foundation, the Carol Olson Memorial Research Fund and the Schott Foundation. That research led to NIH funding.

Oxygen is the key in extending the life of an organ, and scientists have used a variety of methods in an attempt to sufficiently oxygenate tissues. “Traditionally, a pancreas or other organ is placed in what is effectively an ice bucket, obviously not an ideal method of transporting an organ,” Dr. Papas said.

Dr. Papas tapped into existing technology used in the Sea Wolf nuclear submarine to design a portable device that can create oxygen from a small amount of water in order to pump humidified oxygen-enriched gas through the organ’s vessels during transportation, a technique known as persufflation.

The use of persufflation in preserving organs had been limited in the past because a simple method for using it during transportation — especially by air — was lacking. The new, portable technology, which eliminates the need for gas cylinders, is ready for clinical translation and will be tested in pilot human trials in Europe in 2012, Dr. Papas said.

The technology and tools developed by Dr. Papas and his team also could aid in extending the life of organs from donors after cardiac death.

“For instance, the vast majority of hearts from donors after cardiac death are not used for transplant because current protocols are not able to properly preserve their viability,” said Dr. Papas. “The longer you wait, the more the organ dies.”

Dr. Papas and his team, through a grant from the Diabetes Research Wellness Foundation, are working with the University of Newcastle and King’s...
College in London to determine whether persufflation can extend the viability of pancreata from donors after cardiac death. They also are examining whether it could expand the viability of organs in donors over age 50.

“The early data is very promising,” Dr. Papas said.

Islet Transplants at UA

Islet autotransplants (self-donated) currently are performed at The University of Arizona Medical Center to treat chronic pancreatitis. The UA Department of Surgery Comprehensive Center for Chronic Pancreatitis, in conjunction with the Institute for Cellular Transplantation, under the direction of Horacio Rilo, MD, has performed 30 islet autotransplants to date. The UA hopes to begin islet allotransplants for patients suffering with type 1 diabetes mellitus in 2012.

Islet transplants to treat patients with type 1 diabetes mellitus are currently in Phase 3 clinical trials in the U.S., sponsored by the National Institutes of Health.

“The number of patients needing and waiting for a lifesaving transplant far outpaces the supply of available organs,” said Dr. Rilo. “The successful development of this technology will help save lives by increasing the number of patients receiving transplants.”

Rainer W.G. Gruesnner, MD, chief of the Division of Abdominal Transplantation and chairman, UA Department of Surgery, added, “Both islet allotransplants and pancreas transplants have been shown to be successful options for patients with diabetes mellitus and its advanced secondary complications, such as metabolic control problems, end-stage renal disease, neuropathy, and gastropathy.

“The successful development of this technology will help save lives by increasing the number of patients receiving transplants.”

— Horacio Rilo, MD

Isle Transplants at UA

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— Horacio Rilo, MD
Half a million coronary artery bypass surgeries are performed in the world each year, but as many as 40 percent ultimately will fail and need to be redone. A study led by Robert Poston, MD, chief of the Division of Cardiothoracic Surgery, is finding that veins damaged during endoscopic harvesting may be to blame.

Since the 1960s, heart surgeons have performed coronary bypass surgery in people – most commonly in their 70s – whose arteries are blocked. Traditionally, a surgeon would meticulously remove the vein from somewhere else in the body – often the leg – and use it to direct blood around the blocked artery, restoring blood supply to the heart.

With the advent of minimally invasive and robotic surgery, about 80 percent of surgery centers now remove the vein endoscopically, involving less pain and less scarring. Dr. Poston, one of the nation’s foremost leaders in minimally invasive heart surgery, noted that the rate of failure has increased with the advent of endoscopic removal.

“We have gotten away from those meticulous techniques used many years ago and we now harvest veins endoscopically, which is a very nice thing for patients, but it can damage the vein,” Dr. Poston said. “Veins get damaged when they are harvested, which puts them on a track that leads to failure ultimately.”

“It’s a public health issue that is being largely ignored,” said Dr. Poston, who has researched the issue for six years through a $2 million National Institutes of Health (NIH) study.

Coronary bypass remains a common procedure, however, and Dr. Poston is dedicated to making the surgery as successful as possible. Through the study, his team is using the latest in 3D imaging to see inside harvested veins to determine whether there is damage. The 3D maps of the blood vessels may allow surgeons to select only the healthiest tissues for performing bypass surgeries and thus limit the number of vessels that fail.

“There are very few people doing research on it,” said Dr. Poston, who believes he is the only surgeon with an NIH grant to study coronary bypass. He called coronary bypass “somewhat of a forgotten field in terms of a topic for research focus. “People feel it’s just a field that is likely to go away due to coronary stenting and advances in medical management.”

“We don’t have to abandon the endoscopic technique, but just figure out how to do it better,” he said. Minimally invasive robot-assisted surgery requires no large chest incision, enabling patients to recover and return to normal activities much faster with fewer side effects.

“The next step is to develop a protocol using a surgical technique that is based on intraoperative imaging that will ultimately lead to every vein being perfect, which would result in far less failure.”

Department Chairman Rainer W.G. Grussner, MD, added, “Our mission is to not only offer state-of-the-art robot-assisted surgical options for heart patients, but also to advance the field by developing new techniques to make minimally invasive surgery safer and more effective.”

Image 1 shows a completely patent vessel with no tear, disruption, or injury in the wall. The continuous bright lining in the vessel is the endothelium (innermost layer) and is of perfect quality (no plaque, blood clot, or injury). In the center is the probe with the camera.

Image 2 shows a tear in the inner lining of the wall at 2 o’clock. This tear means a rupture of the endothelium in a vessel and could lead to this vessel failing in the future. At 7 o’clock, a branch arises out of the vessel.
Understanding how and why cells grow out of control is critical in the fight against potentially deadly tumors. **Abraham Jacob, MD,** is leading research on preclinical drug development for benign brain tumors that cause significant human suffering, given their critical location.

As associate professor of surgery in the **Division of Otolaryngology – Head and Neck Surgery,** and director of the **University of Arizona Ear Institute,** Dr. Jacob's research focuses on drug development for childhood and adult-onset brain tumors like vestibular schwannomas and meningiomas, commonly associated with neurofibromatosis type 2.

Dr. Jacob and his team are studying whether aberrant activation of growth-promoting intracellular pathways that affect proliferation and survival of tumor cells can be targeted for drug development. He hopes that this preclinical work will lead to novel drugs that successfully treat both benign and cancerous lesions.

“Patients may one day have the choice of medical therapy as a way for them to avoid the morbidity associated with surgery and radiation,” he said. “We expect that breakthroughs in schwannoma research may be more broadly applied to other tumors.”

Dr. Jacob's studies have identified agents that halt or reverse cell growth in the lab – novel AKT pathway inhibitors such as AR42 and AR12.

“But our work really isn’t married to any one drug,” Dr. Jacob said. “Our goals are to validate pathways that promote growth of these tumors and identify promising inhibitors that can be translated expeditiously to human clinical trials.”

“Pharmaceutical companies often don’t look to develop drugs that are used to treat benign tumors because they are slow-growing or affect small groups of patients,” Dr. Jacob said. “However, once FDA approval is obtained for the treatment of schwannomas or meningiomas, oncologists may use these agents against a variety of human cancers.”

Dr. Jacob currently holds a $1.16 million grant from the National Institutes of Health for his work. He was recruited to the UA as a surgeon-scientist in late 2011 – a joint venture between the UA Department of Surgery, the UA College of Medicine, the BIO5 Institute, and the University of Arizona Cancer Center. Because Dr. Jacob removes these tumors regularly, his research benefits tremendously from his access to human specimens.

Such cutting-edge work will bring regional and national referrals to the UA. “Nobody in Arizona is doing basic science of this kind,” Dr. Jacob said of his work on vestibular schwannomas. “Sophisticated patients seek out the very best care at the very best institutions, institutions that strive to understand the unique nature of their disease.”

## New Fellowship Programs Established in Acute Care Surgery, Transplant Surgery and MIS

### Acute Care Fellowship

The Division of Trauma, Critical Care, and Emergency Surgery in the UA Department of Surgery has received approval from the American Association for the Surgery of Trauma (AAST) for an acute care surgery fellowship. The division is one of only 12 approved sites for this training in the U.S.

This program offers fellows broad training in elective and emergency general surgery, as well as trauma surgery and certain surgical subspecialties. It provides a second year of training in addition to the critical care fellowship that is already offered by the trauma division. The fellowship is overseen by nine full-time trauma/critical care surgeons, who have a myriad of clinical and research interests.

Fellows spend approximately four-to-six months on the trauma service, functioning as a junior attending, in addition to rotations on vascular, hepatobiliary, thoracic, orthopedic surgery, and neurosurgery. Additional electives are available, tailored to suit the particular interests and training needs of the fellow.

Research is strongly encouraged, with numerous opportunities to participate in both clinical and basic science projects. Protected research time is provided to the fellows to ensure their academic success.

### Fellowship Training in Kidney Transplantation

The UA Department of Surgery Division of Abdominal Transplantation recently received accreditation from the American Society of Transplant Surgeons...
Innovative Education

for a transplant surgery fellowship. The two-year program will train one fellow every year beginning July 2013.

The fellow will be integrally involved in all aspects of patient care: evaluation for a transplant, whether as an outpatient or under urgent inpatient circumstances; operative and perioperative surgical, medical, and immunosuppressive care; and posttransplant inpatient and chronic outpatient follow-up.

All applicants will have completed a general surgery residency program by the time the fellowship begins.

Minimally Invasive Postdoctorate Research Fellowship

The Arizona Center for Endoscopic Surgery (ACES) in the UA Department of Surgery Section of Minimally Invasive and Robotic Surgery now offers general surgery residents an opportunity to participate in mentored research in the field of minimally invasive surgery. The one-year postdoctoral scholar engages in comprehensive research to help evolve endoscopic surgery.

Research can focus on robotic surgery, single-incision laparoscopic surgery (SILS), natural orifice translumenal endoscopic surgery (NOTES), metabolic surgery procedures and outcomes, benign and malignant esophageal diseases, or evaluation of novel surgical devices and procedures.

The fellow participates in the surgical education lab, teaching laparoscopic surgical skills to residents and medical students, and conducting research in surgical education and minimally invasive surgery.

Larger Space for State-of-the-Art Training Labs

Arizona Center for Endoscopic Surgery (ACES)

The UA Department of Surgery’s Advanced Laparoscopic/Robotic Training Course has expanded to become the Arizona Center for Endoscopic Surgery (ACES). Renovation will create a more comprehensive program to develop and improve surgical techniques through animate learning.

The training center will feature state-of-the-art facilities with the latest simulation technologies and the most modern operating rooms that include robotic, laparoscopic, and endoscopic equipment. Eight surgical stations will be developed and will be available for use on a year-round basis.

A main focus of the center will be to provide participants with realistic and relevant contexts in which to develop their surgical understanding, knowledge and competence. Medical students and surgery residents will learn basic skills and rapidly adapt to a clinical environment. The program also will serve as an interactive and dynamic way to refine the minimally invasive and robotic surgery skills of practiced surgeons.

ACES has created successful partnerships with industry to ensure the program’s sustainability. The center also has partnered with ASTEC (Arizona Simulation Technology and Education Center) to provide a simulation-training model for instruction in minimally invasive surgery.

“The program’s expansion will lead to improved patient outcomes and recovery and to the advancement of techniques required for new types of minimally invasive surgical procedures,” said Carlos Galvani, MD, associate professor and director, Minimally Invasive, Robotic and Bariatric Surgery.

Arizona Simulation Technology and Education Center

The Arizona Simulation Technology and Education Center (ASTEC) has moved to a larger space in the UA College of Medicine. The expansion triples the size of the simulation training lab, which provides high-tech training for thousands of medical professionals each year. ASTEC has been so successful since its opening in 2005 that it outgrew its previous space.

Simulation-based medical education uses interactive technologies in realistic health care settings to help participants develop and refine specific diagnostic, cognitive, and surgical techniques in a safe setting – before caring for real patients. Simulation-based
medical education is revolutionizing the way hospitals and medical schools train doctors and nurses and is enhancing patient safety at the same time.

The new lab features a more open environment for training future surgeons, including additional space for laparoscopic training for surgery residents. The center is equipped with five separate training pods that can be individualized for all College of Medicine departments and provide simultaneous instruction intended to process an entire class of medical students in one day. ASTEC offers training for all levels within the college and for regional pre-hospital organizations. It now has the flexibility to transform the lab space to meet the needs of any size simulated environment.

“This is particularly beneficial for critical trauma and/or OR simulated events that require multidisciplinary teams, as well as for mass casualty exercises that occur in the field,” said Allan J. Hamilton, MD, professor of surgery in the Division of Neurosurgery and ASTEC director.

**Twelve Residents and Fellows Graduate in 2011**

**General Surgery:** James J.P. Rough, MD, accepted a fellowship in plastic and reconstructive surgery at the University of California, Los Angeles; Brian K. Madigan, MD, is staying at the UA to complete a cardiothoracic surgery fellowship; Felipe Boff Maegawa, MD, is practicing general and hepatobiliary surgery; Sarah M. Popek, MD, has begun a colorectal surgery fellowship at the University of Southern California; Zachary C. Taylor, MD, is staying at the UA to complete a fellowship in vascular surgery; Norma T. Walks, MD, is now a general surgeon in Luverne, Minnesota.

**Neurosurgery:** Benjamin J. Serxner, MD, started fellowship training in complex spine surgery in Colorado.

**Urology:** Lipika R. McCauley, MD, entered private practice in Phoenix.

**Cardiothoracic Surgery:** Aleem Siddique, MD, accepted a transplant fellowship at Freeman Hospital in Newcastle, United Kingdom.

**Surgical Critical Care:** Jorge Con, MD, is the first Acute Care Surgery fellow at the University of Arizona.

**Vascular Surgery:** Layla Corral Lucas, MD, is practicing vascular surgery in Tucson with an emphasis on limb salvage.

**Podiatric Surgery:** Brian D. Lepow, DPM, has joined his family’s private practice in Houston and plans to establish a limb salvage program at Texas Medical Center.

he UA Department of Surgery honored its former chairman, **Bruce E. Jarrell, MD**, with the 2011 Distinguished Leadership Award. The award is presented annually to recognize outstanding leadership that has led to improved surgical practices.

Dr. Jarrell served as UA Department of Surgery chairman from 1990 to 1997. For four years he served as chair of the board of the UA faculty practice plan. He was a founding member of the UA Biomedical Engineering Program, a joint effort between the Department of Surgery and the Department of Aerospace and Mechanical Engineering that was funded by a Whitaker Foundation Special Opportunity Award.

Dr. Jarrell went to the University of Maryland School of Medicine in 1997 as professor and chair of the Department of Surgery and moved to the Dean’s Office in 2003 to serve as executive vice dean.

Dr. Jarrell recently was promoted to senior vice president and chief academic and research officer at the University of Maryland. He also is dean of the Graduate School. In his new role, Dr. Jarrell will be responsible for facilitating the research mission of the University of Maryland, as well as function as the university’s provost in matters related to the university’s Strategic Alliance.

A graduate of the University of Delaware in chemical engineering, Dr. Jarrell received his medical degree from Jefferson Medical College in Philadelphia. He completed residency training in general surgery at the Medical College of Virginia and a fellowship in renal transplantation at McGuire Veterans Affairs Hospital.

Since 1986, Dr. Jarrell has been funded by the National Institutes of Health, the National Science Foundation (NSF), the Department of Defense, and corporate sources. He holds 22 patents. He served on the “Journey to Mars” committee cosponsored by the National Aeronautics and Space Administration (NASA).

He currently is a co-investigator on an NSF grant to develop a Web-based high school curriculum to increase interest of women and minorities in science, technology, engineering, and mathematics (STEM). The author of two popular textbooks in surgery, he has received numerous teaching and alumni awards.

“We chose Dr. Jarrell for this year’s award because of his past leadership as department chair at the UA and for his academic excellence shown in his current position as the new senior vice president at the University of Maryland,” said Rainer W.G. Grussner, MD, UA Department of Surgery chairman.
Surgery Residents and Fellows – Presentations

**Angela Echeverria, MD, POSTGRADUATE YEAR (PGY) II**
Society for Laparoendoscopic Surgeons, “Multipurpose Internal Retractor for Single Incision Surgery.”

**Evan Glazer, MD, PGY III**

**Pantelis Hadjizacharia, MD, PGY IV**
“Prothrombin Complex Concentrate: An Effective Therapy in Reversing the Coagulopathy of Traumatic Brain Injury” American Association for the Surgery of Trauma, Sept 2011.

**Maria Michailidou, MD, PGY I**
American Association for the Surgery of Trauma, “‘BLUSH’ on CT: Often Unimportant!,” Sept 2011.

**Francisco Mora, MD, PGY II**

**David Ritsema, MD, PGY VI**

**Bernardino Rocha, MD, PGY I**
American Association for the Surgery of Trauma, Sept 2011:
- “Prospective Evaluation of Selective Nonoperative Management of Torso Gunshot Wounds: When is it Safe to Discharge?”
- “Anemia and Transfusions on Traumatic Brain Injury.”
- “The Impact of Admission Hyperfibrinolysis on Mortality in Trauma Patients.”
- “Assessment of an Intervention Bundle for Traumatic Brain Injury: When Are Intracranial Pressure Monitors Necessary?”

**Cassandra Villegas, MD, PGY I**
“Does Trauma Center Volume for Penetrating Trauma Improve Survival among Patients with Penetrating Injuries?” American Association for the Surgery of Trauma, Sept 2011.

**Luke X Zhan, MD, PGY II**

Resident Awards & Recognition

Mohammad Khreiss, MD, fifth-year general surgery resident, received The Wendell B. Whitacre Outstanding Surgical Chief Resident Award. Presenting the award is Wendell Whitacre, MD, long-time supporter of the Department of Surgery. Dr. Whitacre, a retired surgeon, established the annual award to support resident education by recognizing and encouraging outstanding surgery residents.

Ulises Garza, MD, post-doctoral research fellow in the Section of Minimally Invasive and Robotic Surgery, was invited to represent his home country of Mexico at the 3rd biennial joint conference, Collaborating Across Borders III (CAB III), “Interprofessional Collaboration: From Concept to Preparation to Practice,” in November.

Maria Michailidou, MD, first-year general surgery resident, won first place at the Arizona Committee on Trauma Competition in Scottsdale. Her topic was “Use of a Videolaryngoscopy for Trauma Patients.”

Francisco Mora, MD, second-year general surgery resident, received the International Trauma and Disaster Institute Scholarship from Dr. Susan Briggs of Massachusetts General Hospital. Dr. Mora also had the opportunity to participate in the Post Traumatic Stress Conference as an instructor in the PTS Basic Trauma Course, training 20 local physicians.
Cristina Cueto, MD, PGY V


Nazanin Ehsani-Chimeh, MD, PGY I


Evan Glazer, MD, PGY III


“Nuclear Morphometry Identifies a Distinct Aggressive Cellular Phenotype in Cutaneous Squamous Cell Carcinoma”* MD/Linx.com, Nov 2011.

Adam Hansen, Cardiothoracic Surgery Fellow


Ioannis Konstantinidis, MD, PGY II


Bernardino Rocha, MD, PGY I


*Raghunandan Venkat, MD, PGY I


Villar Retires after 35 Years of Teaching, Research, Service

After more than 35 years of dedicated service to the UA College of Medicine and the Department of Surgery, Hugo Villar, MD, professor and chief, Division of Surgical Oncology, retired last July. A UA Department of Surgery Scientific Research Session was held in honor of Dr. Villar last December.

In 1977, Dr. Villar became a member of the Arizona Cancer Center, founded that year at the UA, and later its surgical director. In 1983, the dean of the UA College of Medicine appointed Dr. Villar chief of the Division of Surgical Oncology. He was named the vice chairman of the Department of Surgery in 2001, holding that position until 2004, when he was appointed the interim department chairman. After the recruitment of Rainer W.G. Gruessner, MD, to lead the Department of Surgery in 2007, Dr. Villar was again appointed the vice chairman of the department. In 2009, Dr. Villar was named chief of general surgery at University Physicians Healthcare Hospital (now The University of Arizona Medical Center – South Campus).

Dr. Villar has been the recipient of numerous prestigious appointments at the UA, serving as director of Intraoperative Radiation Therapy, as the associate director of the General Surgery Residency Program, and as an elected member of the Board of Directors of University Physicians Healthcare.

In 2007, he was named the Distinguished Latin American Surgeon in the United States for 2007 by the Federation of Latin American Surgeons (FELAC – Federación Latino Americana de Cirugía) for his leadership in surgical education in Latin America. He helped develop and implement the American Society of Clinical Oncology (ASCO) Multidisciplinary Cancer Management Course in Latin America, whose purpose is to train physicians in developing countries on a multidisciplinary approach to cancer care. He served as Chairman of the Commission on Cancer and the International Relations Committee of the American College of Surgeons.

American College of Surgeons

The UA Department of Surgery hosted its annual reception for alumni and friends during the Clinical Congress of the American College of Surgeons in San Francisco last October. Save the date – this year’s reception will be held Tuesday, Oct. 2, in Chicago.

Albert Amini, Diane Amini

Randy Wong, Mindy Wong, Brian White, Candice Jensen, Thomas Harmon

Rose Pedersen, Elizabeth Tourville, Rainer Gruessner, Parisa Malekzadeh

Kari Schlachtenhaufen, Rockwell Jackson, Sarah Jackson DiBoise

Mustapha Raoof, Terence O’Keeffe, Bellal Joseph, John Kettelle

Shane Peck, Jennifer Tittensor, Kimberly Peck
New Faculty

Chirag S. Desai, MD, assistant professor of surgery, Division of Abdominal Transplantation, comes to the UA from Georgetown University Hospital in Washington, DC, where he completed a multiorgan transplant and hepatobiliary surgery fellowship. Dr. Desai is the first fellow in the United States to be certified by the American Society of Transplant Surgeons (ASTS) for intestine transplantation.

With advanced expertise in solid-organ transplants of the liver, intestine, pancreas, and kidney, Dr. Desai also is a member of the UA Department of Surgery HepatoPancreaticoBiliary (HPB) Center team. This highly specialized service deals with all conditions that affect the liver, gallbladder, bile ducts, pancreas, and duodenum. The conditions include benign and malignant tumors, inflammations, congenital abnormalities, and traumatic injuries.

Dr. Desai received his medical degree and residency training at Seth G.S. Medical College, King Edward Memorial Hospital, University of Mumbai, India. He served as a liver transplant associate (Visiting Physician Program) at Mt. Sinai Hospital in New York.

His research interests focus on the outcomes of liver and intestine transplantation through clinical research. Dr. Desai has authored several publications and articles in peer-reviewed journals.

Audrey Erman, MD, is assistant professor, Division of Otolaryngology – Head and Neck Surgery, and co-director of the Head and Neck Oncology Program. Specializing in the treatment of head and neck malignancies, including melanoma and other skin cancers, as well as salivary glands, thyroid and paratumors of the thyroid, tongue, lips and oral cavity, larynx, pharynx, and sinuses), Dr. Erman brings to Arizona the latest microvascular tissue-transfer techniques for reconstruction following surgery for head and neck cancer.

Dr. Erman attended medical school at the University of Michigan, where she was presented the Furstenberg Award for exceptional achievement in otolaryngology. She completed her residency at the University of Michigan, the preeminent otolaryngology – head and neck surgery training program in the country.

Dr. Erman pursued fellowship training in head and neck surgical oncology at the Massachusetts Eye and Ear Infirmary, a Harvard-affiliated hospital. She received extensive training in both surgical oncology and advanced reconstructive surgery for defects of the head and neck.

As a result of her research on the sentinel lymph node biopsy technique, which tests some of the patient’s lymph nodes to evaluate for cancer, Dr. Erman has published the largest single-institution review of the procedure for use in head and neck melanoma. She has presented her research at national meetings.

Thomas Geronon, MD, assistant professor, Division of Otolaryngology – Head and Neck Surgery, is a fellowship-trained head and neck and microvascular reconstructive surgeon specializing in transoral robotic surgery (TORS). Co-director of the Head and Neck Oncology Program, Dr. Geronon provides treatment for patients with benign and malignant masses of the head and neck, including tumors of the tongue, lips, oral cavity, larynx, pharynx, thyroid, and parathyroid.

Dr. Geronon attended the University of Washington Medical School, graduating with honors; he was elected to the Alpha Omega Alpha (AOA) medical honor society. He completed his residency training in otorhinolaryngology: head and neck surgery at the University of Michigan with specialized training in the area of head and neck surgical oncology.

Following residency, Dr. Geronon completed the head and neck surgical oncology and microvascular reconstruction fellowship at the University of Washington, where he worked with Neal Futran, MD, one of the world’s most renowned head and neck oncolgic and reconstructive surgeons.

U.S. Navy veteran Donald (D.J.) Green, MD, has been appointed associate professor of surgery in the Division of Trauma, Critical Care, and Emergency Surgery and medical director of trauma services at the University of Arizona Medical Center – South Campus.

Dr. Green served as a general surgeon for 10 years in the U.S. Navy, where he completed tours in Iraq and Afghanistan. He then spent six years at the Navy Trauma Training Center at the Los Angeles County Medical Center, preparing doctors, nurses, and other staff members to care for wounded soldiers in the trauma centers in Iraq and Afghanistan.

Dr. Green received his medical degree at the University of Washington, and completed his residency training at the University of Arizona. He completed a fellowship in surgical critical care at the University of Southern California.

He is a member of the American College of Surgeons, the Association for Surgical Education, and the Special Operations Medical Association. He has coauthored more than 38 publications. His research focuses on injury prevention.

Lynn Gries, MD, has been appointed assistant professor of surgery in the Division of Trauma, Critical Care, and Emergency Surgery. Dr. Gries received her medical degree from McGill University.

She completed her general surgery residency training at the University of Colorado Health Sciences Center, Denver.

She also completed a General Surgery Basic Science Research Fellowship at Denver Health Medical Center, University of Colorado Health Sciences Center, as well as a Critical Care, Trauma, and Acute Care Surgery Fellowship at Wake Forest University Baptist Medical Center, Winston-Salem, NC.

Abraham Jacob, MD, has joined the Division of Otolaryngology – Head and Neck Surgery as associate professor of surgery and director of the UA Ear Institute. Dr. Jacob comes to the UA from the Department of Otolaryngology – Head and Neck Surgery at Ohio State University in Columbus, where he served on the faculty for five years.
After receiving his medical degree from the University of Michigan, Dr. Jacob completed his internship in general surgery and residency training in otorhinolaryngology at Washington University School of Medicine and Barnes-Jewish Hospital in St. Louis. He subsequently completed a fellowship in otology, neurotology, and cranial base surgery at Ohio State University.

Dr. Jacob specializes in the surgical management of diseases of the ear, facial nerve, and base of the skull. He is an expert in middle-ear surgery, cochlear implants, BAHA (bone-anchored hearing aid) hearing restoration, surgically implantable hearing aids, acoustic neuromas (vestibular schwannomas), and facial nerve disorders.

His ongoing research focuses on preclinical drug development for tumors associated with neurofibromatosis type 2, such as vestibular schwannomas and meningiomas, as well as prevention and treatment of chemotherapy-induced hearing loss (ototoxicity). His research is funded by the National Institutes of Health.

Dr. Jacob has published extensively in peer-reviewed journals and presented at both national and international meetings. He is a member of the Alpha Omega Alpha medical honor society and has received several otorhinolaryngology specialty-specific awards, including the Nicholas Torok Award from the American Neurotology Society and the George Adams Award from the Triological Society.

**NEWS BRIEF**

**Urology Moves to University of Arizona Cancer Center – North Campus**

The University of Arizona Cancer Center – North Campus, 3838 N. Campbell Ave., is the new home of the Division of Urology. The new facility will allow for more patient visits and shorter waiting time, as well as centralize and consolidate two multidisciplinary clinics: Genitourinary Oncology (prostate, bladder, kidney, testis, adrenal, and penile cancers), Pelvic Floor Disorders, and Reconstructive Urology (a complex subspecialty that requires multidisciplinary care and includes all facets of urinary dysfunction in men and women).

**Dr. Samuel Kim, MD.** Assistant professor, recently recruited to the Division of Cardiothoracic Surgery, is the only surgeon in Southern Arizona offering patients less-invasive alternatives if they need lung tissue removed: video-assisted thoracic surgery (VATS) and robot-assisted surgery.

In traditional open-chest lung surgery, or thoracotomy, doctors cut a long incision through muscle and spread apart the rib cage. VATS and robot-assisted surgery using the da Vinci surgical robot allow doctors to perform chest surgery through two to four small incisions, most less than an inch long. Patients who undergo minimally invasive procedures spend less time in the hospital, need less pain medication, have less scarring, and recover faster than those who undergo open-chest surgery.

Dr. Kim also specializes in minimally invasive and robot-assisted procedures for benign and cancerous diseases of the esophagus, including complex esophageal reconstruction, robot-assisted thyrmectomy, and tracheal resection and reconstruction.

Dr. Kim received his undergraduate degree with honors in biophysics from Johns Hopkins University and his medical degree from Tufts University School of Medicine. He completed residency training in general surgery at the University of Pennsylvania Hospital and in cardiothoracic surgery at Massachusetts General Hospital. In addition, he completed a minimally invasive esophageal surgery training at the University of Pittsburgh and advanced thoracic surgery training at the Mayo Clinic.

Author of several journal articles, Dr. Kim is interested in the investigation of genetic markers associated with improved clinical outcome in lung and esophageal cancer patients and in the development of novel targeted therapies.

**Samuel Kim, MD.**

**Dr. Ethan E. Larson, MD.** has joined the Division of Reconstructive and Plastic Surgery as assistant professor. Dr. Larson performs all aspects of plastic surgery, including reconstruction of traumatic, oncologic, or surgical defects, as well as breast reduction, body contouring, and cosmetic surgery.

Dr. Larson has special expertise in microsurgical reconstructive treatment options for patients, including breast reconstruction following mastectomy. He is one of the few surgeons in Southern Arizona to offer microsurgical breast reconstruction with a free DIEP (deep inferior epigastric perforator) flap, which uses skin, tissue, and tiny blood vessels taken from the patient’s abdomen to form a new breast, while preserving the abdominal muscle.

A native of Tucson, Dr. Larson attended the University of Arizona, graduating summa cum laude with degrees in both microbiology and psychology. He was the senior student of the year and a NASA space-grant research fellow. He attended the UA College of Medicine as a Dean’s Scholar. Dr. Larson completed his internship and residency in plastic surgery at Georgetown University in Washington, DC. He received fellowship training in microsurgery and complex oncologic defect reconstruction under world-famous microsurgeon Peter Neligan, MD, at the University of Washington.

**Ethan E. Larson, MD.**

**Valentine N. Nfonsam, MD.** a specialist in colon and rectal surgery, colorectal oncology, and complex pelvic floor disorders, has been appointed assistant professor in the Division of Surgical Oncology.

Dr. Nfonsam performs surgeries for inflammatory bowel disease, anorectal disease, and benign and malignant colorectal diseases. He is an expert in the surgical management of pelvic floor disease, especially fecal incontinence. He also performs colonoscopies and endoscopic treatment of polyps. Dr. Nfonsam is one of just a few surgeons in the nation using minimally invasive techniques for colon and rectal surgery, such as advanced laparoscopy, single-incision surgery, and robot-assisted surgery, which have been shown to reduce the patient’s wound infection rate, postoperative pain, length of stay in the hospital, and overall recovery time.

A graduate of the University of Illinois College of Medicine in Chicago, Dr. Nfonsam completed his surgery residency training at North Shore-Long Island Jewish Health System in New Hyde Park, NY. During his surgical training, he completed a minimally invasive surgery (MIS) research fellowship at the Cleveland Clinic.

Dr. Nfonsam comes to the UA from the University of Arizona Cancer Center – North Campus.

**Valentine N. Nfonsam, MD.** a specialist in colon and rectal surgery, colorectal oncology, and complex pelvic floor disorders, has been appointed assistant professor in the Division of Surgical Oncology.
University of South Florida, Tampa, where he completed a two-year fellowship in colon and rectal surgery. He has taught a course in total mesorectal excision (TME) in rectal cancer treatment, which is an essential component in the management of rectal cancer. Dr. Nfon-sam’s research focuses on colorectal cancer in young patients, inflammatory bowel disease, and the management of pelvic floor disorders. He has published articles on his research in peer-reviewed journals and has presented at national and international meetings.

Warren C. Breidenbach III, MD, has joined the UA Department of Surgery as professor and chief of the Division of Reconstructive and Plastic Surgery. He is the world leader in hand and composite tissue allotransplantation (CTA). He comes to the UA from the University of Louisville, where he led the team of surgeons to perform the nation’s first (and world’s first successful) hand transplant in January 1999. He has since performed more hand transplants than any other surgeon in the world. Additionally, based on his leadership and expertise in the field, he has trained the majority of the U.S. teams performing hand transplants.

In addition to his leadership role as division chief, Dr. Breidenbach’s goal at the University of Arizona is to establish an Institute for Composite Tissue Allotransplantation and Regenerative Surgery, including hands, face, legs, and feet – the first of its kind in the nation.

Dr. Breidenbach’s clinical interests are extremity surgery, peripheral nerve compression problems, repetitive stress disorders, and reconstructive trauma surgery. He is extensively involved in cutting-edge immunosuppression research, which has tremendous potential for those in need of transplants. In addition to CTA, his research interests include peripheral nerve outcomes, management of extremity pain syndrome, and animal models of tolerance induction in CTA.

A graduate of the University of Calgary, Dr. Breidenbach received his postgraduate training at McGill University, in plastic surgery. He completed a one-year microsurgery fellowship at the Eastern Virginia Medical School in Norfolk, followed by one year as a Christine M. Kleinert Hand Fellow at the University of Louisville.

Dr. Breidenbach was appointed the first Hand Scholar with the Christine M. Kleinert Institute for Hand and Microsurgery for two years. His work on vascularized nerve grafts earned him the American Society of Plastic and Reconstructive Surgery Clinical Research Scholarship Award. He also received the Senior Award of the American Society of Plastic and Reconstructive Surgery for his work in blood flow to nerves.

He has served as president of the International Hand and Composite Tissue Allotransplantation Society and is founding president of the American Society of Reconstructive Transplant. He also served on several committees of the American Society for Surgery of the Hand and as secretary of the American Society for Peripheral Nerve.

Dr. Breidenbach has received numerous awards and honors and has published more than 80 papers and publications.

Klearchos K. Papas, PhD, MS, BChE, is professor of surgery in the Division of Abdominal Transplantation and scientific director of the Institute for Cellular Transplantation. In his new position, Dr. Papas directs new transplant research initiatives to treat patients with diabetes.

Dr. Papas is an internationally known expert on retrieving, preserving, and assessing insulin-producing islet cells. Islet transplantation involves extracting islet cells from the pancreas and transplanting them into the liver so they can continue to produce insulin. The loss of viable islets during the process of islet manufacturing is a major challenge in the field of islet transplantation.

Dr. Papas previously served on the faculty at the University of Minnesota, where he was an associate professor of surgery, holding leadership positions as associate director of the Islet Transplant Program, director of Islet Processing Research and Development, and director of the Islet Quality Assurance Core in the Schulze Diabetes Institute.

Dr. Papas came to the United States as a Fulbright Scholar in 1986. He attended the Georgia Institute of Technology in Atlanta, where he received his bachelor’s, master’s, and doctorate in chemical engineering, with a focus on tissue engineering for cell-based insulin replacement for the treatment of diabetes. He completed postdoctoral work with Novartis Pharmaceuticals in Summit, NJ, in the area of metabolic diseases, analytics, and BioNMR (nuclear magnetic resonance). He subsequently held research positions at the Massachusetts Institute of Technology in the Department of Chemical Engineering, the Juvenile Diabetes Research Foundation (JDRF) Center for Islet Transplantation at Harvard Medical School, and the Howard Hughes Medical Institute at Yale University.

An editorial board member of the journals Cell Transplantation and Cell Medicine, Dr. Papas has published more than 50 articles (33 in the past three years). He has been invited nationally and internationally to give numerous presentations on his research studies on organ preservation, quality assessment, and cell transplants to treat type 1 diabetes and pancreatitis.

Jitesh A. Patel, MD, a surgeon specializing in minimally invasive colon and rectal surgery, colorectal oncology, and complex pelvic floor disorders, has joined the Division of Surgical Oncology as assistant professor. Dr. Patel treats a wide range of diseases of the colon and rectum. He has special expertise in advanced minimally invasive techniques, including transanal endoscopic microsurgery (TEMS) for rectal cancers and polyps.

TEMS makes it possible to excise polyps and some lesions high inside the rectum through the anus that otherwise would be accessible only by major abdominal surgery. Patients who are ideal candidates for TEMS avoid a colostomy, a common fear among those diagnosed with rectal cancer.

Dr. Patel also specializes in advanced laparoscopic surgery for benign diseases, including inflammatory bowel disease, diverticulitis, and other conditions of the colon, rectum, and anus, such as hemorrhoids and fissures. He also performs colon cancer screening, including colonoscopies.

Dr. Patel received his medical degree from the University of Medicine and Dentistry of New Jersey – Robert Wood Johnson Medical
Robert S. Poston, MD, nationally known for his work in the use of robotics for minimally invasive cardiac surgery, has been appointed professor and chief of the Division of Cardiothoracic Surgery. In addition, he has been named the Jack G. Copeland Endowed Chair of Cardiothoracic Surgery at the UA Sarver Heart Center.

With his arrival, The University of Arizona Medical Center – University Campus is the only hospital in Arizona, and one of only a handful in the nation, to offer robot-assisted minimally invasive coronary artery bypass surgery.

Minimally invasive, robot-assisted bypass surgery allows physicians to gain access to the heart with fewer incisions ( unlike conventional bypass surgery, which requires the chest to be opened with an incision the length of the breastbone, or sternum ). With this new procedure, the patient has smaller scars, fewer side effects and complications, less pain, reduced risk of infection, and faster recovery than with conventional bypass graft surgery. On average, hospital stay is reduced from six to three days.

Dr. Poston previously served as chief of cardiac surgery at Boston Medical Center; prior to that, he was an associate professor of cardiac surgery at the University of Maryland School of Medicine. He succeeded Jack Copeland, MD, who joined the University of California, San Diego.

“My aim for our division is to provide distinctive services that are highly valued by patients and their families,” said Dr. Poston. “Robot-assisted heart surgery is a prime example of this type of service. Similarly, our internationally renowned mechanical-assist program, the only one in Tucson, can improve the quality of life for those with severe congestive heart failure.

“We encourage patients who might be candidates to come to us for a second opinion so they understand all their options. The emphasis on shared decision-making with patients by discussing these types of innovative options is a growing priority in health care.”

Dr. Poston received his undergraduate degree in biology with highest honors from the University of Texas at Austin and his medical degree from the Johns Hopkins School of Medicine, as a member of the Alpha Omega Alpha (AOA) medical honor society. He completed a general surgery residency at the University of California-San Francisco; a research fellowship in the Department of Cardiothoracic Surgery, Cardiothoracic Transplant Laboratory, at Stanford University School of Medicine; and a cardiothoracic residency at the University of Pittsburgh Medical Center.

Dr. Poston has authored more than 100 scientific papers and abstracts. He is currently the principal investigator on several multicenter research studies. In a five-year initiative funded by the National Institutes of Health (NIH), Dr. Poston is exploring the use of high-resolution imaging technology during heart surgery to identify the optimal bypass graft for a patient. In another ongoing study, he is investigating the ability of robotic surgery to accelerate the return of exercise tolerance, as compared with traditional surgical techniques.

Dale Payne, MD, PhD, has joined the Division of Cardiothoracic Surgery as surgical director of the Cardiothoracic Intensive Care Unit.

Dr. Payne received his doctorate and then his medical degree from Ohio State University. He completed general surgery residency training at the University of California, Los Angeles and Davis, and cardiothoracic residency training at the University of Pittsburgh.

Following his residency training, Dr. Payne was recruited to the University of North Carolina at Chapel Hill, where he developed and directed the first heart transplant program in the state. He then was recruited by the Los Angeles Heart Institute at St. Vincent Medical Center to develop and direct its heart transplant program and also to direct the heart and lung transplant program at the University of California, Irvine. Dr. Payne returned to the University of Pittsburgh to develop and direct a new open-heart teaching program at Westmoreland Regional Medical Center near the University Hospital.

After moving to Arizona in 2000, he developed a successful cardiothoracic and vascular surgery private practice, serving several major hospitals in Scottsdale, Mesa, and Phoenix. He joined the UA Department of Surgery to return to teaching, research, and involvement in cutting-edge surgical procedures as part of a major academic surgery department.

Dr. Payne has expertise in many areas of cardiothoracic and vascular surgery, including heart transplant and artificial heart devices. He has also been named director of the Cardiothoracic Surgery Robotic Lab at the University of Arizona.

Allen Raczkowski, MD, has joined the Division of Cardiothoracic Surgery as assistant professor of surgery. Recognized as one of the pioneers in using the da Vinci robot for minimally invasive coronary operations, Dr. Raczkowski performed hundreds of robot-assisted heart surgeries in Phoenix before joining the UA.

Dr. Raczkowski’s practice focuses on robot-assisted heart valve surgery, such as mitral valve repair or replacement and robot-assisted aortic valve surgery. He was the first surgeon in the world to use the robot to do non-arrested mitral repairs in a human. During this procedure, the heart continues to beat while the valve is repaired. In Arizona, he was the first to do endoscopic robotic mitral valve replacement and repairs and the first to do a surgical maze procedure to treat atrial
A descendant of an Arizona pioneer family, Dr. Stewart was born and raised in Tucson. He received both his bachelor’s degree in electrical engineering and his medical degree from the UA, where he also received the Lange Award for Academic Excellence. He completed residency training in otolaryngology at the University of Utah in Salt Lake City.

He previously was in private practice in Tucson, serving patients at Davis-Monthan Air Force Base.

Dr. Stewart serves on the board of directors of the Adult Loss of Hearing Association (ALOHA), a nonprofit support and advocacy organization that provides hearing loss services for hard-of-hearing or deaf adults. He is the immediate past president of ALOHA and leads “Let’s Loop Tucson,” an ongoing project to promote “looping,” a technology to help hearing aid users in public places.

Sergio Rivero, MD, has joined the Division of Neurosurgery as associate professor. Dr. Rivero specializes in complex neurosurgery of the brain and spine, including cervical, thoracic, and lumbar disorders; cervical and lumbar stenosis; cervical and lumbar disc herniations; tumors of the brain and spinal cord; and inclusion of spinal cord stimulation surgery and peripheral nerve surgery, including carpal tunnel surgery.

Dr. Rivero attended medical school at the Universidad Autónoma de Guadalajara, Mexico. He completed residency and fellowship training at the UA College of Medicine, where he was one of the first residents to complete the UA’s Medical Sciences Graduate Program in Clinical Research.

Dr. Rivero is a member of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons. His research interests focus on pain and the spine.

Bruce E. Stewart, MD, has been appointed assistant professor in the Division of Otolaryngology – Head and Neck Surgery. With more than 20 years of experience, Dr. Stewart offers a full range of medical and surgical services for head and neck disorders and diseases to patients of all ages, from newborn infants to seniors. His services include comprehensive care of patients with sinonasal disorders, hearing loss and chronic ear disease, obstructive sleep apnea, and masses of the thyroid, head, and neck.

Sreekumar "Kumar" Subramanian, MD, assistant professor, has joined the Division of Cardiothoracic Surgery. Dr. Subramanian’s practice includes a broad spectrum within adult cardiac surgery, ranging from on-pump and beating heart coronary artery bypass surgery to minimally invasive heart-valve operations, surgical treatment of atrial fibrillation, and minimally invasive procedures on the aorta. While he offers patients multiple minimally invasive surgical options, Dr. Subramanian also developed special expertise in reoperative and high-risk reoperative cardiovascular surgery at the Cleveland Clinic Foundation.

Dr. Subramanian completed a seven-year combined program leading to a bachelor of science degree and medical degree at Union College and Albany Medical College in New York. He joined the U.S. Air Force and completed a six-year general surgery residency at David Grant Medical Center in California. Subsequently stationed at Spangdahlem Air Base in Germany, he deployed to Liberia and Kazakhstan, and served as a combat trauma surgeon in Balad, Iraq. He then completed his cardiothoracic surgical training at the Cleveland Clinic.

Dr. Subramanian received an Arizona Heart Institute traveling fellowship and spent two years working as a cardiac surgeon at the Heart Center Leipzig while doing a fellowship in percutaneous and minimally invasive heart valve surgery and innovations.

His clinical and research interests also include aortic valve-preserving operations and aortic surgery, including the use of hybrid operations for the descending thoracic aorta. He has authored and coauthored about 60 publications, which include articles, abstracts, and book chapters.

Jess L. Thompson III, MD, MSc, a cardiothoracic surgeon specializing in the repair of congenital heart defects in children, has joined the Division of Cardiothoracic Surgery as assistant professor. A fourth-generation Arizona native, Dr. Thompson comes to the UA from Texas Children’s Hospital in Houston, where he completed a fellowship in congenital heart surgery. His clinical expertise includes repair of complex neonatal congenital heart disease and treatment of adults with congenital heart disease.

Dr. Thompson attended medical school at the University of Southern California, Los Angeles, Keck School of Medicine. He completed his general surgery residency training and cardiothoracic training at the Mayo Clinic in Rochester, MN.

While at the Mayo Clinic, Dr. Thompson participated in a National Institutes of Health Clinical Investigator Program, receiving a master’s degree in biomedical sciences: clinical research. His studies centered on complex heart-valve disease with a specific...
emphasis on novel anticoagulants and anticoagulation strategies, as well as minimal-
ly invasive heart-valve repair and replacement
techniques. Dr. Thompson has published his
research in scientific journals and presented
at both national and international meetings.

In his role at the UA, Dr. Thompson will
work closely with Michael Teodori, MD, pro-
fessor of surgery and director of Congenital
and Pediatric Cardiac Surgery, a renowned
specialist in surgical treatment of newborns
and children with highly complex heart
problems.

Magdiel Trinidad-Hernandez, MD, has
joined the Division of Vascular Surgery as
assistant professor. He specializes in minimally
invasive, endovascular treatments for the man-
agement of aortic aneu-
rysms and complex aortic reconstructions.

Dr. Trinidad-Hernandez has trained in the
latest techniques of aortic stent grafting for
endovascular repair of abdominal aortic aneu-
rysms, other aortic abnormalities, and vas-
cular conditions. He is an expert in advanced
endovascular procedures, such as graft
fenestration, hybrid operations, snorkel tech-
niques for the treatment of complex aortic
aneurysms, and bifurcated graft replacement
for the treatment of iliac artery aneurysms to
preserve blood flow to the pelvis. In addition,
Dr. Trinidad-Hernandez specializes in lower-
extremity bypass and endovascular inter-
ventions for limb salvage as well as carotid
surgery and stenting.

A native of Guadalajara, Mexico, Dr.
Trinidad-Hernandez comes to the UA from
the Mayo Clinic in Rochester, MN, where he
completed a fellowship in vascular and endo-
vascular surgery. He completed his general
surgery residency at the Metropolitan Group
Hospitals of the University of Illinois at Chi-

Dr. Trinidad-Hernandez’s research interests
include advanced endovascular techniques
for complex aortic aneurysms and the surgi-
cal treatment of lymphedema. He has pre-
sented papers at national and international
meetings and has a number of publications
including abstracts, book chapters, and origi-
nal contributions.

Tolga Turker, MD, as-

assistant professor in the Division of Recon-
structive and Plastic Surgery, is specially
trained to perform advanced free or pedicled
flap transfer (moving tissue from one site on
the body to another), bone and soft tissue
reconstruction, and composite tissue allo-
transplants (transplanting tissue or limbs from
deceased donors).

In addition, Dr. Turker treats all types of
hand problems, including nerve compression
degenerative diseases, and performs upper-
extremity repair and free-tissue transfer for
trauma injuries and skin defects, vascular-
ized-bone transfer for fractures and deformi-
ties, and toe-to-hand transfer for thumb and
finger reconstruction.

Dr. Turker earned his medical degree at
Istanbul University in Turkey. After completing
an orthopedic and trauma residency at Cer-
rarahasa Faculty of Medicine Department of
Orthopedic and Traumatology, Istanbul,
his served in the Turkish Army as an orthope-
dic surgeon and practiced at the largest army
hospital in Turkey. During his time in the army,
he performed numerous trauma, hand, and
microsurgery cases.

Dr. Turker completed a three-year hand
and microsurgery fellowship at the Christine
M. Kleinert Institute for Hand and Microsur-
gery in Louisville, KY. While at the Kleinert
Institute, he was part of the surgical team for
two hand transplant operations performed
under the direction of Dr. Warren Breiden-
bach, now chief of the Division of Reconstruc-
tive Surgery at the UA.

Dr. Turker’s publications focus on studies
of tissue and oxygen-relation models, nerve
regeneration, and microsurgery education.

Jiyao Zou, MD, assistant
professor in the Division of Recon-
structive and Plastic Surgery, offers
specialized expertise in the transplantation and
replantation of severed digits or extremities and
in microsurgical recon-
struction of damaged areas of the body from
injuries or cancer.

He received his medical degree from
Shandong Medical University in China. He
completed orthopedic surgery residency
training at one of the largest orthopedic tra-
uma and microsurgery centers in Shandong.
He performed all types of microsurgery cases,
including replantation as well as free-flap and
vascularized tissue transfers.

Dr. Zou recently finished an orthopedic
trauma fellowship at the University of Louis-
ville and a hand and microsurgery fellowship
at the Christine M. Kleinert Institute for Hand
and Microsurgery in Louisville. He partici-
pated in two cases of hand transplantation in
Louisville, including a bilateral (double) hand
transplant.

Dr. Zou’s research focus is on the anatomy
and clinical studies of different kinds of tissue
flaps, with an emphasis on local transfer and
on decreasing donor morbidities.

Rebecca Klein Vis-
cusi, MD, has joined
the breast cancer team
as assistant professor in
the Division of Surgical
Oncology. Dr. Viscusi
specializes in surgical
techniques that can help
patients facing a mastec-
tomy (surgical removal of one or both breasts)
have more natural-appearing reconstructed
breasts.

An Arizona native, Dr. Viscusi received
her bachelor’s degree from the UA and her
medical degree from Jefferson Medical Col-
lege in Philadelphia. She returned to the UA
to complete her general surgery residency
training. Dr. Viscusi also completed a one-year
fellowship program in breast surgical oncology
at the University of Texas Southwestern in
Dallas.

Dr. Viscusi’s practice includes treatment
of both benign and malignant breast-care
issues. Her clinical and research interests
involve the care of women at high risk for
developing breast cancer, specifically those
with a BRCA mutation. She participates in
the High-Risk Cancer Clinic at the UA Cancer
Center.
Fund Honors
‘Father of American Lithotripsy’

Endowed fund to honor UA Urology Division founder George W. Drach, MD

In 40 years as a urologist, George W. Drach, MD, has advanced the specialty on an international level through his medical contributions. Dr. Drach, who founded the Division of Urology at the UA Department of Surgery, is world-renowned for the development of tools to combat kidney stones and for improved urologic care for aging patients.

To honor this “boy from Arizona,” the UA established the George W. Drach, MD, Endowed Chair for Urology, with the goal of raising $2 million. About $300,000 has been raised, much from fraternity brothers, former residents, and patients of Dr. Drach.

Interest from the endowment would benefit the division in perpetuity, supporting research, attracting top faculty, building pediatric urology, and more.

“The future is outstanding for urology based on our aging population, and research has got to be supported so we continue to produce important bits of knowledge,” Dr. Drach said.

A former UA student body president, Dr. Drach, with his affable smile and signature bolo tie, initially planned on following in his grandfather’s footsteps by becoming a minister. It was a zoology professor at the UA who recognized his talent with the scalpel and suggested he become a surgeon.

He received his medical degree from (Case) Western Reserve University in 1961, and did surgical training at University Hospitals in Cleveland. He was drawn to the field of urology after serving as chief medical officer in the Navy on the USS Valley Forge during the Vietnam War. He later completed a urology residency and fellowship at Wake Forest University.

While receiving additional training at the University of New Mexico, Dr. Drach yearned to return to Arizona. He joined the faculty at the UA in 1970. Here, he and his wife, Paula Drach, built the division together, providing a sense of family for students and residents in training.

Dr. Drach developed an interest in kidney stones early in his career, and became known as the “Father of American Lithotripsy” for his research on the revolutionary device used to pulverize kidney stones with sound waves, eliminating the pain of surgery.

Recognizing gifts of $1,000 or more in 2011

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Lithotripsy
CONTINUED FROM PAGE 23

need for surgical incisions. It was one of the first minimally invasive technologies and is used throughout the world today.

His interest shifted in 1995 to urologic care for aging patients. Following the death of his wife and childhood sweetheart, Dr. Drach served as visiting professor of urology at the University of Texas Southwestern Medical School in Dallas and directed the urology clinic at Parkland Memorial Hospital in 1996-98. In 1998 he joined the University of Pennsylvania and now serves as professor emeritus of urology. He and his second wife, Margaret Duckett-Drach, frequently return to the UA, where he still teaches.

Dr. Drach has written more than 140 journal articles and continues to inspire the highest quality of urologic care. He recently helped to develop surgical competencies in the field of surgery, “something all surgical students and residents should know,” he said.

“We are very proud of Dr. Drach,” said Kari Schlachtenhaufen, director of development for the UA Department of Surgery. “He set us on a good path. It is critical to have endowments within the Department of Surgery because that is where new surgery techniques are developed, and that research ultimately will give patients with more complex conditions greater hope.”

Inspired to Make a Difference

Dr. Jack and Rosemary Dunn create endowment in honor of Dr. Philip Carter.

Inspired by the commitment of the UA Department of Surgery Division of Neurosurgery to research, teaching, and compassionate patient care, neurosurgeon Jack H. Dunn, MD, and his wife, Rosemary Dunn, have established the Dunn Family Fund, with family and friends supporting the effort.

The endowment honors the late Dr. L. Philip Carter, a longtime UA neurosurgery faculty member and former division chief who died in 2010. It recognizes the significant contributions Dr. Carter made in training neurosurgeons and in the lives of his patients, Dr. Dunn said.

“Dr. Carter’s personal and professional life was about making a difference. The fund will continue his legacy and make a difference to future neurosurgeons and to neurosurgery patients and their families,” explained Dr. Dunn.

Dr. Dunn, who joined the UA in 2008 with a specialty in spinal injuries and diseases, said he and his wife have supported institutions that impacted their lives, including Yale, New York University, and Wayne State University. Witnessing growth within the UA Division of Neurosurgery, under the direction of division chief, G. Michael Lemole, Jr., MD, motivated the Dunns to establish the endowment.

“We wanted to build support for residents and faculty to take care of people in Arizona and around the world,” Dr. Dunn said. “We train people to spread the knowledge they learn here. We feel this is a good place to support.”

Income from the endowment was used most recently to support the training of neurosurgery residents. The Dunns will annually evaluate how funds are now able to do things that haven’t been done before in Arizona.

Dr. Carter made in training neurosurgeons and other efforts.

The Dunns are encouraging others to start endowments to benefit neurosurgery and other divisions at the UA in perpetuity.

“Endowments are more valuable than general donations,” Dr. Dunn said. “It’s important to put money into something that makes a difference in Arizona. In neurosurgery, we are recruiting more people so we can provide superior neurosurgical care to Southern Arizona. We are now able to do things that haven’t been done before in Arizona.

“Our family will continue to support the efforts as much as we can,” Dr. Dunn added.

If you are interested in learning more about endowments at the University of Arizona, please contact Kari Schlachtenhaufen, JD, at 520-626-2222.
Raytheon Missile Systems Donates $100,000 to UA Trauma Division

Raytheon Missile Systems has donated $100,000 to the Division of Trauma, Critical Care, and Emergency Surgery in the UA Department of Surgery. The gift will fund research on the treatment of wounded soldiers on the battlefield and trauma victims here at home.

Potential advancements that can be implemented the quickest will get the highest priority. Specific research areas will include developing devices to detect and treat chest injuries, new human-based resuscitation fluids, and new treatments to stop bleeding. Studies also will focus on traumatic brain injury, tissue transplantation, and suspended animation.

“Advancement for warfighters also will have an immediate impact at home, as it will be just as applicable for civilian trauma,” said Peter Rhee, MD, chief, UA Division of Trauma, Critical Care, and Emergency Surgery. “We are excited to partner with one of Tucson’s largest employers through their support in trauma research. Research is a systematic way of improving human life now and forever.”

“Raytheon is proud to provide the UA trauma division with this donation to help further the world-class work that is already under way there,” said Taylor W. Lawrence, PhD, Raytheon Missile Systems president. “Because our two organizations have a focus on the warfighter, we see tremendous synergy between Raytheon and the UA Trauma team in this area.”

Ranked in the top five percent nationally, the Level I Trauma Center at The University of Arizona Medical Center is the busiest in Arizona.

Raytheon, with 2010 sales of $25 billion, is a technology and innovation leader specializing in defense, homeland security, and other government markets throughout the world.

Fundraising Events

M*A*S*H Bash

Following the tragic shootings on Jan. 8, 2011, a group of Tucson supporters, recognizing the critical role a Level I Trauma Center serves in the community, created the Friends of the University of Arizona Trauma Center. On Oct. 22, at the Pima Air and Space Museum, the Friends hosted the first annual M*A*S*H Bash, a fundraising event for the Level I trauma center.

The museum was transformed into a camouflaged mobile army surgical hospital mimicking the M*A*S*H hit television series. Highlights included special celebrity guests from the M*A*S*H television series Mike Farrell (B.J. Hunnicutt) and William Christopher (Father Mulcahy). Live entertainment was provided by a USO-style group, along with a Cab Calloway impersonator and a “Rosie’s Bar,” serving specialty drinks in mini-canteens while the band played music from WWII to the present. Guests were encouraged to dress in M*A*S*H-era or Asian-style clothing.

More than 460 people attended the event. Proceeds will be used to support an Endowed Chair in the Division of Trauma, Critical Care, and Emergency Surgery, and to purchase equipment to support trauma research at the University of Arizona.

Since 2003, The University of Arizona Medical Center – University Campus has been the only Level I Trauma Center serving Southern Arizona. The cost to provide this critical community service is estimated at more than $47 million a year.

The long-term vision is to build a freestanding trauma center near the hospital that houses additional operating suites, a trauma intensive care unit, neurologic rehabilitation services, a burn unit, and research laboratories.

The next M*A*S*H Bash will be held Friday, Oct. 19, 2012. Sponsorship opportunities are available. For more information, contact Kari Schlachtenhaufen, 520-626-2222 or karis@surgery.arizona.edu.

Giving Online

Donations can be made to each division and program in the UA Department of Surgery through the University of Arizona Foundation website (www.uafoundation.org) or through the Department of Surgery website (www.arizona.surgery.edu).

If you would like more information on giving opportunities or need assistance, contact Kari Schlachtenhaufen, 520-626-2222 or karis@surgery.arizona.edu.
Awards & Recognition

UA Surgeons Among ‘Best Doctors in America’

More than 100 Tucson physicians affiliated with the Arizona Health Sciences Center are included in the latest Best Doctors in America database, including many from the UA Department of Surgery: Alexander G. Chiu, Allan J. Hamilton, Michael F. Teodori, Khalid M. Khan, Hugo Villar, Jack H. Dunn, Mitchell H. Sokoloff, and Joseph L. Mills.

Rainer W.G. Gruessner, MD, Michael Lemole, MD, and Peter Rhee, MD, were named 2011 Pima Medical Society Physicians of the Year. (See photo.)


He also was placed on the Podiatry Management VIP List of Most Influential Podiatric Physicians, 2011 (selected every 5 years). Dr. Armstrong was appointed chairman of the Diabetic Foot Commission of the International Podiatry Federation (FIP).

Warren C. Breidenbach III, MD, was selected as one of America’s Top Doctors by Castle Connolly, 2011.

Stephen A. Goldstein, MD, was honored as the recipient of the William K. Wright Award at the annual 2011 American Academy of Facial Plastic and Reconstructive Surgery conference.

D.J. Green, MD, has been named president of the Tucson Surgical Society, a 70-member, not-for-profit professional organization of physician surgeons.

Allan J. Hamilton, MD, received the National Award for Excellence in Fire Service-Based EMS – Career Category, presented by the Medic-Alert Foundation and the Congressional Fire Services Institute, April 2011.

Abraham Jacob, MD, has been awarded the 2011 Politzer Society Award for best basic science paper: “AR42: A Novel Histone Deacetylase Inhibitor with High Clinical-Translational Potential as Treatment for NF2-Associated Tumors,” presented at the 2011 meeting in Athens, Greece. The Politzer Society represents a global consortium of leading otologic/neurotologic surgeons. The society awards one basic science and one clinical Politzer Society Award every two years.

Rifat Latifi, MD, received the Community Health Promotion Award from the URAC/Care Continuum Alliance International Health Promotion Awards (IHPA), Rome, Italy. He also received the 21st Century Achievement Award in Health by Computerworld Honors Program, Washington, DC.

Visit Us!

Visit the UA Department of Surgery and learn about the latest advances in surgery, including our Class 10,000 Clean Room, the Institute for Cellular Transplantation, the Pediatric Liver Transplant Program, and the HepatoPancreatoBiliary (HPB) Center for the treatment of pancreatic and liver diseases. Tours are regularly available for small groups.

Contact:
Kari Schlachtenhaufen, 520-626-2222 or karis@surgery.arizona.edu, to schedule a tour.

Michael Lemole, MD, received a Congressional Citation by the Friends of the National Library of Medicine at the Annual Awards Gala in November at the Great Hall of the Library of Congress Jefferson Building. He also received the Arizona Business Magazine 4th Annual Health Care Leadership Award; was named Honorary Commander by the 355th Medical Group, Davis-Monthan Air Force Base, Tucson; and was named Medscape Best Physician of the Year for 2011.

Joseph L. Mills, MD, received the 8th Annual Edward James Olmos Award for Advocacy in Amputation Prevention, March 2011.


Klearchos K. Papas, PhD, has been appointed president-elect of the Cell Transplantation Society (Councillor).

Peter Rhee, MD, was invited to the State of the Union address as Michelle Obama’s guest in January 2011. He also was invited to the White House to attend a state dinner in honor of South Korean President Lee Myung-Bak. He was named Grand Marshal for the Tucson St. Patrick’s Day Parade and Medscape Best Physician of the Year for 2011. He received the Arizona Business Magazine 4th Annual Health Care Leadership Award; the Institute for Corean-American Studies (ICAS) Liberty Award for 2011; the Distinguished Leadership Award, Legal Community Against Violence; a Resolution of Proclamation by the Arizona Indian Gaming Association; and a Proclamation by the President of the United States: “Honoring the Victims of the Tragedy in Tucson, Arizona.”

Horacio Rilo, MD, was recognized for his cutting-edge research at the Cure, Care & Commitment Awards Luncheon hosted by the American Diabetes Association in November 2011.

Michael F. Teodori, MD, received the 2011 Hon Kachina Volunteer Award for his commitment to providing no-cost medical care and support for needy children suffering from congenital heart defects.


**Presentations**


**Armstrong D**, “The Diabetic Foot in the Age of Declay,” 10th Anniversary Orange County Podiatric Medical Society Surgical Symposium, Huntington Beach, CA, Sep 2011.


Armstrong D, Chair, Pecoraro Award Lecture and Oral Abstracts Session: Foot Care Interest Group, 71st American Diabetes Association Scientific Sessions, San Diego, Jun 2011.


Armstrong D, Commencement Speaker, Barry University School of Podiatric Medicine, Miami Shores, FL, Apr 2011.


Armstrong D, “Global Perspectives, Local Treatment (Chair),” “Dancing the SALSA: Keeping Rhythm with Outcomes, Teamwork, and Hope in the U.S. Southwest,” “Breaking the News without Breaking the Bank (Chair),” “Toepocalypse Now: Avoiding Toetastrophy with Technical and Timely Tips (Chair),” “Achilles Heel of the Diabetic Foot (Chair),” “I SPY Healing: Theragnostic Imaging for the OR,” International Diabetic Foot Conference, 2011 (DFCon11), Los Angeles, Mar 2011.


Armstrong D, HealAlliance Research Symposium: Toward a Cure (Chair), Los Angeles, Mar 2011.


Breidenbach W, Presentation and Training on Hand Transplantation Protocols, United Network for Organ Sharing (UNOS), Phoenix, Sep 2011.


Chiu AG, Visiting Professor, Mexican ENT Society 2011 Endoscopic Sinus and Skull Base Surgery Course, Mexico City, Feb 2011.


Chiu AG, Invited Guest Faculty, “Frontal Sinus Surgery,” “Management of Recalcitrant Chronic Rhinosinusitis,” Medical University of South Carolina FESS Course, Charleston, Mar 2011.


Green DJ, “Thoracic Trauma,” Pre-Hospital Trauma Update, Northwest Medical Center, Tucson, Aug 2011.

Green DJ, “Thoracic Trauma,” Pre-Hospital Trauma Update, Tucson Fire Department, Tucson, Sep 2011.

Green DJ, “Trauma Update,” Rincon Valley Fire Department, Vail, AZ, Sep 2011.


Green DJ, “Tension Pneumothorax—Treatment in the Field, the ICU, and on the Big Screen,” Special Operations Medical Operations Symposium, Tampa, Dec 2011.


Poston RS, “Cost of Implications Hybrid Therapy: Can We Afford It?” Tranescatheter Cardiovascular Therapeutics, San Francisco, Nov 2011.


Rhee P, “Handling the Media After a Big Event,” Special Session, 41st Annual Meeting of the Western Trauma Association, Big Sky, MT, Mar 2011.

Rhee P, “Ballistics and Blast,” Keynote Speaker, Taiwan Surgical Society Annual Meeting, Formosa, Taiwan, Mar 2011.


Rhee P, Keynote Speaker, “How To Be an Ir-Represible Surgeon,” 2011 Annual Spring Luncheon, Arizona’s Asian American Faculty, Staff, and Alumni Association (AAFSAA), Tucson, Apr 2011.


Rhee P, “Care of Gunshot Injury in USA Trauma System,” 26th Annual Congress, Korean Society of Traumatology, Trauma Lecture, National Medical Center, Trauma Lecture, Asian Medical Center, Seoul, Korea, May-Jun 2011.


Rhee P, “Bleeding and Shock,” Tuba City, Ft. Defiance, Gallup Indian Medical Center, White River & Summit Healthcare Regional Medical Center, Tour and Lectures to the Navajo Indian Nation Hospitals, Aug-Sep 2011.


To refer a patient or make an appointment, call 520-694-1000

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