Innovations in Surgery

2nd Quarter 2012

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Davis Awarded McCleery Master Teacher Award

The Section of Surgical Sciences in April bestowed its highest teaching award to Rodney Davis, M.D., professor of Urologic Surgery.

The Robert S. McCleery Master Teacher Award was established in 2008 to recognize outstanding full-time teachers of surgical residents at Vanderbilt University Medical Center.

“Rodney Davis’ passionate commitment to duty is evident in his teaching style. He teaches by example, interest in others, and a command of surgical skills,” said Joseph A. Smith, M.D., chair of Urologic Surgery.

Each academic year, surgical residents nominate the faculty member they believe best exemplifies the principles of Dr. McCleery, who was revered for outstanding bedside teaching and meticulous operative technique.

In introducing this year’s award recipient, senior resident Kelly Stratton, M.D., joined his fellow residents in giving Dr. Davis a standing ovation.

“Dr. Davis helps us find the confidence we need to care for our patients, both in the operating room and at the bedside,” said Stratton. “His heartfelt conversations about life and why we all became doctors in the first place is what empowers us to be the best we can,” he said.

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Colorectal Surgery in National Effort to Reduce Surgical Site Infections

One of only four medical facilities in the United States, Vanderbilt is working with the American College of Surgeons and the Centers for Disease Control and Prevention to reduce infections following colorectal surgery – one of the most commonly performed procedures in hospitals today.

Surgical Site Infections (SSIs) can cause patient injury, mortality, prolonged hospitalization and increased healthcare costs. To address these serious healthcare concerns, the Joint Commission Center for Transforming Healthcare established a program to assess what hospitals are doing to reduce such infections and then share these best practices.

As part of this national pilot program, the Joint Commission recently conducted a two-day site visit at Vanderbilt to review all patient processes from the time a patient comes to the clinic to the time he is discharged.

Joint Commission Black Belt project leads for Robust Process Improvement Siew Lee Grand-Clement, R.N., M.S.N., C.P.H.Q., and Donise Musheno, R.N., M.S., said the site visit was a great opportunity to meet the team members at Vanderbilt and officially kick off the Colorectal SSI project.

On the first day of the site visit, the

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Vanderbilt Resident Designs $5 Vascular Simulator

Because arteries are found at various depths throughout the body, vascular surgery has been described as sewing in a hole. So, how do you train surgical residents this skill before they enter the operating room?

It’s a common question asked at medical centers across the country. So, Vascular Surgery Program Director Jeffrey B. Dattilo, M.D., and Professor Colleen Brophy, M.D., challenged General Surgery Resident Kevin W. Sexton, M.D., to come up with an answer.

In one weekend and a trip to the hardware store, he and his wife Deb, who worked in simulation centers while in nursing school, designed the $5 vascular simulator.

A far cry from the cost of actual simulators that can run into the thousands, Sexton’s inexpensive simulator is now enabling residents to easily and effectively practice intricate vascular surgical techniques and vessel repair.

Using nothing more than copper tubing, plastic bird guards often used to block dryer vents, a drain, and some miscellaneous items such as wood screws and two-by-fours, Sexton produced 18 vascular simulators for a residency workshop.

In the first two-hour workshop, 24 first-year surgery residents practiced multiple vascular techniques at various anatomically challenging positions.

The residents were then asked for their feedback on the simulator. The results were overwhelmingly positive.

All of the respondents indicated they would like to have the simulator for personal use; 67 percent were willing to pay for the device at an average price of $25, and 83 percent reported the simulator improved their confidence that they could one day perform such techniques on actual patients.

“It’s not uncommon to come up with non-traditional solutions to medical training. Residents do this all the time. I practiced vascular anastomoses in a coffee can because that is what my chief resident said worked,” said Sexton. “What makes our design useful is we can share it with other residents and institutions all wanting cost-effective simulation. That’s the win,” he said.

Sexton presented his design in March in San Diego at Surgery Education Week, a meeting of the Association of Program Directors in Surgery and the Association for Surgical Education. His paper, co-authored by Dattilo and Brophy, was entitled, “Need cost effective surgical simulation? Send a resident to the hardware store.”

Surgery Education Week is designed to provide a forum for those involved in surgical education to seek new approaches and creative solutions to issues in medical education.

“Low-tech and inexpensive partial task trainers are of great value to both new learners, as well as skills champions. We are surrounded here at Vanderbilt by incredibly bright residents such as Kevin Sexton and are most fortunate to also benefit from Deb’s experience and input,” said John L. Tarpley, M.D., program director of General Surgery Residency.

Innovations in Surgery is produced quarterly by the Section of Surgical Sciences.

R.Daniel Beauchamp, MD, Chairman and the Foshee Distinguished Professor of Surgery

Send story ideas or suggestions to mimi.a.eckhard@vanderbilt.edu, (615) 322-4625.

Mimi Eckhard, director, media services
Emily Goad, media services specialist
www.mc.vanderbilt.edu/surgicalsciences
Richard S. Miller, M.D., has been named chief of the division of Trauma and Surgical Critical Care. He was Vanderbilt’s first fellow in the Division from 1990 to 1992.

Miller has been serving as acting chief since last July, and succeeds John Morris, Jr., M.D., who founded the Trauma Center at Vanderbilt in 1984 and served as division chief from 1986 to 2011.

The Vanderbilt Division of Trauma is the only Level 1 Trauma Center in middle Tennessee, providing trauma care to more than 3,000 patients each year.

“We are quite excited by this appointment,” said Naji N. Abumrad, M.D., chairman of the Department of Surgery.

“Rick has been recognized nationally in this area for some time now, and we are certain that he will continue to build on the solid foundations established by Dr. Morris in creating the strongest academic trauma and critical care unit in the nation,” he said.

“I am honored to lead this incredibly smart, talented team of trauma professionals who demonstrate every day how we all play an integral role in caring for our patients,” said Miller.

“We will continue to focus on what we do best, trauma care, as well as provide ongoing research, education and resources to fully prepare each patient for what comes next on the road to recovery,” he said.

Although back surgery last September put his active lifestyle on hold temporarily, Miller and his daughter Alyssa participated in a triathlon in May. “As you can imagine, life in the trauma unit can be very demanding. Spending quality time with my wife and daughters is what makes me a better doctor,” he said.

Miller received his medical degree from the Universidad C.E.T.E.C., Santo Domingo in the Dominican Republic, after completing his bachelor of arts in biology/natural sciences from the University of South Florida.

He went on to complete his residency in general surgery at Easton Hospital and Hahnemann University Hospital in Pennsylvania. He then completed his fellowship in trauma and Surgical Critical Care at Vanderbilt University.

Following faculty appointments at the Greenville Hospital System and Medical University of South Carolina, Miller was recruited back to Vanderbilt in 2002.

He is a Diplomate of the American Board of Surgery, a frequent guest lecturer, and has authored more than 50 publications, including five book chapters.

His current research focuses on the management and reconstruction of complex abdominal wall hernias.

“As we welcome Dr. Miller into this important position of leadership, we also wish to recognize and thank Dr. Morris who stepped down last year as the founding division chief, having led the Division of Trauma and Surgical Critical Care for 27 years with outstanding service,” said R. Daniel Beauchamp, M.D., chairman of the Section of Surgical Sciences and the Foshee Distinguished Professor of Surgery.

Morris continues to lead LifeFlight, Emergency Preparedness and Acute Care Services.
McCleery Award...

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Davis expressed his gratitude for the recognition, saying, “It’s truly a pleasure sharing what I’ve learned along the way with these incredibly talented residents. I joke that they must learn so they can take care of me one day, but they really will take the helm and care for us all,” he said.

Davis earned his medical degree from Tulane University School of Medicine in New Orleans, Louisiana in 1982. He then completed residencies in General Surgery and Urology from the Madigan Army Medical Center in Tacoma, Washington, and a fellowship in Urology from The University of Texas M.D. Anderson Cancer Center in Houston, Texas.

Davis also holds appointments in Nashville as chief of Urology at the Tennessee Valley Veterans Health Care System and at Meharry Medical College.

A highly decorated member of the U.S. Army, Davis has served throughout the U.S., in the Persian Gulf, Germany and Iraq. He frequently travels to Africa, providing critically needed surgeries as part of mission work in the area.

“Dr. Davis is an outstanding teacher who is a positive role model of compassion and excellence in patient care for students, residents and for his faculty colleagues. We are grateful to the late Dr. Eustace Winn, Jr. and to his family who generously endowed and support this annual award,” said R. Daniel Beuchamp, M.D., the Foshee Distinguished Professor of Surgery and Chairman of the Section of Surgical Sciences.

The late Eustace H. Winn, Jr., M.D., was a Vanderbilt benefactor and surgical resident who trained under the late Robert S. McCleery, M.D.

Surgical Residents and Attendee Presented with Top Awards

Terhune Again Wins Top Resident Teaching Award

For the second year in a row, Kyla Terhune, M.D., was honored with the J. W. Hillman House Officer Teaching Award, the highest House Staff Teaching award.

One of only five resident teaching awards bestowed for excellence in teaching at Vanderbilt, the Hillman Award is presented to the resident deemed the best teacher and role model, as selected by fourth-year medical students.

From a pool of nearly 900 residents and fellows, Terhune received the esteemed Hillman Award, though her tenure as chief resident concluded in 2011.

“This is quite a statement on Dr. Terhune’s ability to teach, mentor and perform by example,” said John L. Tarpley, program director of the General Surgery Residency program.

When asked why the residents decided to yet again nominate Dr. Terhune, though she is now a faculty member and associate program director in General Surgery, the answer was simple. “She sets the bar, whether for one year or four.”

Hillman joined the Vanderbilt faculty in 1952 and was instrumental in Vanderbilt establishing the department of Orthopaedics and Rehabilitation, which he chaired from 1962 through 1970. He was well known for his work with crippled children.

One year following Hillman’s death at the age of 49, the Hillman Award was established in 1971. John Sergent, M.D., program director of Medicine, received the first Hillman Award.

Resident Awards Presented at Grand Rounds

The Section of Surgical Sciences on June 8 paid special tribute to its top residents with a special Resident Awards presentation at Surgical Grand Rounds.

Christina Bailey, M.D., M.S.C.I., received The Harwell Wilson Award -- given annually to the chief resident who epitomizes the ideals of dedication to patient care, research and teaching.

J. Joshua Smith, M.D., Ph.D. received The Alfred Blalock Surgical Resident Award -- established in 1988 to honor the resident whose published laboratory or clinical research marks an outstanding contribution to medical research.

Felicitas Koller, M.D., received The Joseph W. & Bonnie J. Graves Award in Surgery -- established in 1995 to pay tribute to the resident who demon-
Reducing Infections...

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Joint Commission project leads “walked the process” by observing two patients from admission to pre-operative preparation, the actual procedures performed in the operating room, and finally to the patient care unit. They also visited the Colorectal Surgery Clinic, observing the process involved in an urgent/emergent in-patient case.

The focus of the second day was an intensive review of colorectal patient care data, including flow process maps of patient care. This analysis, which included Emergency General Surgery staff, as well as Colorectal Surgery frontline nurses, will ultimately create a plan that can then be shared in hospitals throughout the U.S.

“We have been actively working on reducing these kinds of infections for some time, so it was an honor to be asked by the Joint Commission to demonstrate our processes,” said Susie Leming-Lee, associate director of Perioperative Services. “Obviously, there’s no silver bullet, so this program will enable us to find missing gaps, as well as share some of our best practices with other institutions,” she said.

Even before the Joint Commission pilot program was launched, the Vanderbilt Surgical Site Infection Collaborative Committee was established in 2009 to better understand why infections occur and how they can be reduced.

“Our goal has always been to reduce infections to the lowest level possible. We have attacked this problem by assuring consistency in all our processes and reviewing our results, and are now excited to have input from the Joint Commission,” said Alan J. Herline, M.D., director of the Colon and Rectal Surgery Program and associate professor of Colon and Rectal Surgery. “Our mission is to make sure each patient has the best opportunity to have an infection-free operation,” he said.

Chaired by Professor of Surgery and Anesthesiology Addison K. May, M.D., and co-chaired by Administrative Director of Nursing David A. Wyatt, M.D., the SSI Collaborative Committee has implemented a variety of best practices, including standardization of OR preparations, as well as a new electronic surgical checklist.

The Committee works closely with Herline and Cindy Kildgore, OR director at Medical Center East, where most of the colorectal surgeries are performed.

“We welcome this opportunity to work collaboratively with the Joint Commission to reduce colorectal surgical site infections. Our Colorectal Surgery and Perioperative Enterprise team has already made tremendous progress in this area, so we have the opportunity to both learn lessons from other centers, as well as share important learnings from Vanderbilt,” said R. Daniel Beauchamp, M.D., the Foshee Distinguished Professor of Surgery and Chairman of the Section of Surgical Sciences. Beauchamp serves as the project sponsor of the Joint Commission pilot program at Vanderbilt.

Hayward Selected for NIH Study Section

The National Institutes of Health (NIH) has invited Simon Hayward, Ph.D., assistant professor of Urologic Surgery, to serve as a member of the Urologic and Genitourinary Physiology and Pathology Study Section for the Center for Scientific Review.

During his four-year term, which ends June 30, 2016, Hayward will review grant applications submitted to the NIH, make recommendations on grants, and survey the status of research in the particular field of urologic science.

Members are selected on the basis of their demonstrated competence and achievement in their scientific discipline as evidenced by the quality of research accomplishments, publications in scientific journals and other significant activities, achievements and honors.

Hayward is also the primary investigator and director of the Vanderbilt Center for Benign Urologic Diseases.

Millions of Americans over the age of 50 suffer from a range of prostate and bladder ailments, as well as lower urinary tract symptoms. Hayward hopes that research in this area will lay the groundwork for appropriate treatment options for the broader disease syndrome.
New to the Section

The Section of Surgical Sciences welcomes its newest additions.

Walter Merrill, M.D., professor, Cardiac Surgery, and chief of staff, Vanderbilt University Hospital

Elizabeth Doves, M.D., instructor, General Surgery

Khubaib Mapara, M.D., assistant professor, General Surgery

Aquela Afzal, Ph.D., M.B.A., research assistant professor, Neurological Surgery

Lola Chambless, M.D., assistant professor, Neurological Surgery

Mark Cobb, M.D., M.S., assistant professor, Neurological Surgery

Edward Perry, III, M.D., instructor, Neurological Surgery

J Mocco, M.D., associate professor, Neurological Surgery

Gary Solomon, Ph.D., associate professor, Neurological Surgery and Psychiatry

Kent “Kye” Higdon, M.D., assistant professor, Plastic Surgery

Steven Brooks, M.D., instructor, Trauma and Surgical Critical Care

Neeta Chaudhary, M.D., instructor, Trauma and Surgical Critical Care

Bradley Dennis, M.D., instructor, Trauma and Surgical Critical Care

Shannon Eastham, M.D., instructor, Trauma and Surgical Critical Care

Jeffrey C. Bassett, M.D., instructor, Urologic Surgery

Aaron Benson, M.D., instructor, Urologic Surgery

David James Osborn, M.D., instructor, Urologic Surgery

Chad Ryan Ritch, M.D., instructor, Urologic Surgery
Section Publications

The following publications appeared through the second half of 2011. Congratulations to the Section faculty on their ongoing research at Vanderbilt University Medical Center.

Cardiac Surgery


Pediatric Cardiac Surgery

General Surgery


Hepatobiliary Surgery & Liver Transplantation


Gorden DL, Ivonova PT, Myers DS, McIntyre JO, Van Saun MN, Wright JK, Matrisian LM, Brown HA. Increased Diacylglycerols Characterize Hepatic Lipid Changes in Progression of Human Nonalcoholic Fatty Liver Disease; Comparison to a Murine Model. 2011 Aug; 6 (8) PLoS ONE.

Renal & Pancreas Transplantation
Sam WJ, Chamberlain CE, Lee SJ, Goldstein JA, Hale DA,

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**Surgical Oncology & Endocrine Surgery**


**Trauma and Surgical Critical Care**


**Vascular Surgery**


**Burn Surgery**


**Surgical Research**


**Neurological Surgery**


**Pediatric Surgery**


Thoracic Surgery


**Urologic Surgery**


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Resident Awards...

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strates commitment, interest and effectiveness in the teaching of fellow residents.

Eileen Duggan, M.D., and Ricky Shinall, M.D., M.Div., received The H. William Scott, Jr. Research Scholarship -- given to those residents in General Surgery who have a strong interest in research and exemplify the spirit of Dr. Scott, esteemed chair of Vanderbilt Surgical Sciences from 1952-82.

Jason Castellanos, M.D., Catherine Dale Kling, M.D., and Carmelle Romain, M.D., received The J. Kenneth Jacobs Fellowship in Surgery -- establish to provide funds for support of residents spending one to two years in a research laboratory at Vanderbilt or another institution.

Rebecca Bwcoum, M.D., received The Lester Williams, Jr. Research Scholarship -- given to that resident whose research proposal shows scientific promise as he/she begins laboratory experience.
It seems so straightforward. If we have pain, we treat it. But what if the pain isn’t so easily located, or it comes and goes, or never seems to go away?

“It’s what physicians at the new Vanderbilt Pain Management Center grapple with every day, and why they now define pain as a disease. Just like diabetes or heart disease, treating pain requires expertise from a host of specialists, including Surgery, Anesthesiology, Psychiatry, Neurology, Orthopaedics and Rehabilitation.

“We all work together because the causes of pain are as varied as the symptoms and severity,” said Marc Huntoon, M.D., director of the Vanderbilt Pain Management Center. “By looking at the complete picture, we can develop a comprehensive treatment plan that makes sense for each patient,” he said.

The first step is in meeting the patient, asking about history of pain, current medications and any recent injuries. At times, necessary medical treatments such as chemotherapy or surgery can also cause pain.

With this information in hand, physicians can then determine the best course of action for patients already in pain, as well as identify those who may be predisposed to future pain.

“Until recently, the treatment of pain wasn’t always considered a part of a patient’s total care regimen. But if we begin to recognize that pain is a disease, then we can treat it in its entirety, before, during and after it starts,” Huntoon said.

“For one patient, medication may work beautifully and we refer that patient to the Pain Management Center. For another patient, surgery or rehabilitation may prove successful,” said Joseph S. Cheng, M.D., associate professor of Neurological Surgery.

“It really comes down to providing the best possible treatment for the best possible outcome,” he said.