“Because of the results, he told me and ran some tests,” Davis says. “I was a walking dead man, I didn’t even know it.”

It’s mostly a hunting trip for us,” says the West Union resident. “We look for squirrels, rabbits or deer,” says William Davis, 60, says he tries to visit his son in the south every fall. “It’s mostly a hunting trip for us,” says the West Union resident. “We look for squirrels, rabbits or deer,” says William Davis, 60, says he tries to visit his son in the south every fall.

Friedrich Weintraub

I couldn’t have the procedure. He said there was a very high risk that I might have a heart attack on the table. “Then he sent me to Dr. Weintraub.”

Thanks to a preoperative evaluation at University Hospital, William Davis, pictured here with his wife Theresa, was “saved” from a potential heart attack. Doctors detected that Davis had a severely clogged artery. Davis’ preoperative evaluation was part of the collaboration between anesthesiologists and cardiologists to find and treat heart problems before patients undergo surgery and other procedures requiring anesthesia. As noted in recent guidelines issued by the American College of Cardiology and the American Heart Association, non-cardiac surgery is often the first opportunity for patients to receive evaluations for risk of heart disease. “Unfortunately, one of the current realities of modern medicine is that there are far too many errors of omission, which is to say that doctors are underdiagnosing and undertreating medical problems far too often,” Friedrich says. By checking for problems early, the team not only ensures quality care for the patient, they also save money by preventing last-minute cancellations.

See GAP page 7

UC Inks Deal for Drug Discovery

By Dama Kimmon
dama.kimmon@uc.edu

UC is teaming up with a clinical stage pharmaceutical company to discover, develop and commercialize new drugs for viral infections.

The agreement pairs Princeton, N.J.-based Pharmasset with drug discovery experts at UC’s Genome Research Institute (GRI) in a search to identify compounds that could be used against hepatitis B, hepatitis C and HIV.

The pharmaceutical company, will test specific drug "targets" against GRI's chemical compound library, a collection of more than 250,000 compounds, as well as other drug discovery capabilities such as ultra high-throughput (HTS) screening and computational chemistry.

The pharmaceutical company will test specific drug “targets” against GRI’s chemical library using the ultra HTS system. Potential drug candidates will be further tested using computational tools or modified further for increased specificity by Pharmasset’s medicinal chemists. Pharmasset will make an annual payment to UC in support of the preclinical collaboration and will be responsible for all product development expenses.

See DISCOVERY page 2

Hove Wins ‘Highest’ Young Scientist Award From U.S. Government

By Dama Kimmon
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UC physiologist Jay Hove, PhD, has been named a winner of the prestigious 2006 Presidential Early Career Award for Scientists and Engineers (PECASE).

PECASE is recognized as the highest award offered to young scientists by the U.S. government.

Hove, associate professor of molecular and cellular physiology, received his award Nov. 1 at a White House reception. He is the first scientist from UC to receive the honor.

Jay Hove, PhD, a UC first when he was awarded the 2006 Presidential Early Career Award for Scientists and Engineers on Nov. 1.

PECASE candidates must be nominated by one of 11 participating U.S. agencies.

See AWARD page 5

College of Medicine Appoints Two Department Chairs

By Richard Puff
richard.puff@uc.edu

The College of Medicine has named chairs for the departments of psychiatry and of molecular genetics, biochemistry and microbiology.

Stephan Strakowski, MD, who will lead the psychiatry department, has served as interim chair since May 1, 2006. He holds secondary appointments as professor of biomedical engineering and psychology, and also is a member of the neuroscience graduate program faculty.

Makel Koth, PhD, who will head molecular genetics, biochemistry and microbiology, will come to UC from the University of Tennessee Health Science Center (UTHSC) in Memphis, where she is the C. Mullins Professor of Translational Research.

David Stern, MD, dean of the College of Medicine, made the appointments, pending approval by the UC Board of Trustees.

Strakowski’s appointment is effective Nov. 1. Koth will join the college May 1, 2008.

“These are two outstanding clinicians, researchers and academic leaders,” says Stern.

“Dr. Strakowski has been a valuable member of the college for 15 years, and has done a tremendous job of leading the psychiatry department as interim chair. I’m thrilled that he has agreed to assume the responsibilities on a permanent basis. I’m also delighted to have the opportunity to work with Dr. Koth.”

See CHAIRS page 4

Bridging a Gap: Physician’s Partnership Gives Patient Another Lease on Life

Three-Way Collaboration Allows Physicians to Take Extra Steps in Ensuring Quality Patient Care

By Katie Pence
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William Davis, 65, says he tries to visit his son in the south every fall.

“It’s mostly a hunting trip for us,” says the West Union resident. “We look for squirrels, rabbits or wild hogs, but the older I get, the more I just like to enjoy nature surrounding me.”

This year, Davis made the journey about a month after undergoing angioplasty at University Hospital (UH) to open severely clogged blood vessels in his heart.

“One of my major arteries was over 90% clogged,” Davis says. “I was a walking dead man, and I didn’t even know it.”

Even though Davis experienced intense chest pain and shortness of breath from time to time, his severe coronary artery disease was not discovered because of these symptoms.

Instead, Davis was diagnosed as being to undergo electroconvulsive therapy for depression.

“The anesthesiologist evaluated me and ran some tests,” Davis says. “Because of the results, he told me in 1996 to honor the “extraordinary achievements of young professionals at the outset of their careers in the fields of science and technology.”

The PECASE program was initiated by U.S. President Bill Clinton in 1996 to honor the “extraordinary achievements of young professionals at the outset of their independent research careers in the fields of science and technology.”

PECASE candidates must be nominated by one of 11 participating U.S. agencies.

See AWARD page 5

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See DISCOVERY page 2
An annual award intended to stimulate clinical research among neurosurgical residents has been established within the department of neurosurgery at the College of Medicine. The Ellen and Stewart B. Dunsker, MD, Award for Clinical Research, created by the retired Mayfield Clinic neurosurgeon and his wife, will provide a $2,000 prize each spring for the next seven years to a neurosurgery resident who has proposed and completed the most compelling clinical research project during the academic year.

“The intent is to support clinical studies,” says Stewart Dunsker. “There’s a lot of emphasis on basic research in residency and medical school, but there’s a dearth of good clinical research national-ly. It’s difficult and there’s no premium paid for it. Yet, I think it’s absolutely critical to how you treat patients.”

Dunsker, who retired as professor of neurosurgery in 2002, is renowned for his surgical and organization skills and for his humanity. He played a role in developing spinal surgery into a subspecialty of neurosurgery.

Dunsker was named Ohio Neurosurgeon of the Year in 1992 and received the Harvey Cushing Medal, the highest honor bestowed by the American Association of Neurological Surgeons, in 2003.

Raj Narayan, MD, Frank H. Mayfield Professor and chair of neurosurgery, praises the Dunskers for their generosity and creativity “in establishing a gift that is likely to inspire critical thinking and analysis among residents.”

“We hope to see friendly, but lively competition as residents strive for this prestigious honor,” Narayan says.

Research protocols for the 2007-2008 academic year should be submitted to Narayan no later than April 30, 2008. For more information, call (513) 558-3557.

Virtual Colonoscopy Exams? Yes, They Are Effective

By Amanda Harper

Howard Feigelson, MD, and Lisa Renner, review CT scans of a colon in the 3D post-processing lab at University Hospital.

New evidence supports a “virtual” option for the 40 million Americans who avoid potentially life-saving colorectal cancer screening exams because of anxiety over the invasive nature of colonoscopies. A study recently published in the New England Journal of Medicine (NEJM) reported that “virtual colonoscopies”—performed using computed tomography (CT) technology—are as effective for detecting polyps (growths) and early-stage colorectal cancers as the traditional colonoscopy exam.

UC radiologists have performed virtual colonoscopy screening exams for the past four years in patients who cannot tolerate sedation and now offer the option to the general public. The procedure is less invasive and requires far less time than traditional exams.

“Major medical studies have proven that virtual colonoscopies are just as accurate as traditional colonoscopies for diagnosing colorectal cancer,” says Howard Feigelson, MD, a UC volunteer assistant professor of radiology and body imaging specialist at University Hospital.

“We hope that more people will get this life-saving screening test that was scientifically proven, less-invasive option is available.” Prior to both traditional and virtual colonoscopy exams, patients are required to follow a liquid-only diet for 24 to 48 hours and take laxatives to cleanse the colon and rectum. The colon is then inflated with carbon dioxide as a contrast material to improve the visual field.

During a traditional colonoscopy, the patient is sedated and the physician uses a fiber optic scope equipped with a camera to inspect the entire colon for potentially cancerous growths. In contrast, the virtual exam requires no sedation and uses a series of rapidly acquired CT scans to diagnose any problems. The virtual procedure takes about 20 minutes and the patient can immediately resume normal activities. The traditional procedure takes about an hour.

U.S. gastroenterologists caution, however, that virtual colonoscopies do not allow physicians to immediately address any growths they find. “Using traditional screening colonoscopies, we’re able to remove any polyps immediately,” says Jonathan Kushner, MD, a gastroenterologist and associate professor of medicine. “This can save the patient the time and emotional stress of booking a second procedure to explore any problem areas identified during a virtual exam.”

According to the NEJM study, 8.3 percent of patients who had a virtual colonoscopy had to return for a traditional procedure.

Although opinions vary on the merits of virtual versus traditional colonoscopy, the entire UC Physicians team agrees on the bottom line: If virtual colonoscopies entice more people to get timely colorectal cancer screenings, it’s a good thing.

“With proper screening and sur-veillance, the vast majority of colorectal cancer can be found early enough to be cured,” says Janice Rafferty, MD, chief of colon and rectal surgery at UC.

The American Cancer Society recommends that all adults get an initial colorectal screening exam at age 50, with periodic surveillance exams to follow.

UC Health Line features timely health information and tips for consumers. Read new Health Lines every Thursday or access archives at healthnews.uc.edu.

GRI Receives $250,000 County Grant

The Genome Research Institute (GRI) at the University of Cincinnati College of Medicine has received a $250,000 grant from Hamilton County Commissioner Todd Portune recently presented UC’s Genome Research Institute (GRI) with a $250,000 grant from the county’s economic development fund.

The grant supports a portion of the cost to purchase a mass spec- trometer—located in the GRI’s proteomics core—that will be used for drug discovery.

On hand at the check presenta- tion were (from left to right) Portune; College of Medicine Dean David Stern, MD, George Thomas, PhD, interim director of the GRI; Ken Greis, PhD, head of proteomics at the GRI; and City of Reading Mayor Robert (Bo) Bennie.
Epilepsy Drug May Curb Alcohol Dependence

UC Leads Local Portion of a National Study That May Give Physicians More Options in Treating Patients

By Dama Kimmon
dama.kimmon@uc.edu

A drug commonly prescribed to treat epilepsy reduces heavy drinking and promotes abstinence among alcohol-dependent people, a newly published study shows.

The JAMA study was led by Bankole Johnson, MD, PhD, of the University of Virginia.

During the 14-week study, 371 male and female alcoholics were treated with topiramate or a placebo.

Researchers evaluated the number of heavy drinking days (greater than or equal to five drinks a day for men, four for women) for each participant and found that topiramate lowered the percentage of heavy drinking days by an average of 8.44 percent more than the placebo.

All study participants were drinking heavily when they entered the trial. Each participant also received weekly 15-minute interventions by trained medical staff.

The interventions were designed to enhance adherence to the medication and treatment regimen.

Anthenelli, who also directs the substance abuse dependence program at the Cincinnati Department of Veterans Affairs Medical Center, says that combining counseling with medication is the most effective way to treat addiction. And, he says, this study shows that a range of trained health care practitioners—not just addiction specialists—can help with the counseling portion of treatment.

“Opening up the treatment plan to a variety of health care providers adds even more options for patients and could allow for even greater access to treatment,” Anthenelli says.

Manufactured by Ortho-McNeil Neurologics Inc., topiramate has been approved by the U.S. Food and Drug Administration for the treatment of seizures and migraine headaches but is not currently approved for the treatment of alcohol dependence.

To help those interested in learning more about alcohol dependence or current clinical trials, call (513) 558-7179 or toll-free at (877) 874-8272.

Web Site, Magazine Win Two Awards

The Academic Health Center public relations office has been awarded two honors—one for excellence in Web communications and the other for magazine production.

HealthNews—the official news Web site of the Academic Health Center (healthnews.uc.edu)—won a gold award in the 2007 W3 Awards competition.

The W3, sanctioned and judged by the International Academy of the Visual Arts, honors Web site excellence in six areas: creativity, usability, navigation, functionality, visual design and ease of use.

“UC—Research—the university’s research magazine—won a silver medal for “best specialized or unit-level magazine” in the Pride of CASE (Council for the Advance- ment and Support of Education) District V Awards Program.

CASE is an international association of alumni administrators, fundraisers, public relations managers, publications editors and government relations officers.

The PR team includes director Richard Puff and public information officers Jill Halter, Amanda Harper, Jamie Davis Kaun, Dama Kimmon and Katie Pence, and art director Suki Jeffrey.

‘Quitters’ Really Do Win Through Smoking Cessation Program

More Than Half of All Participants Kicked the Habit for Good Through UC–University Clinic Hospital

By Amanda Harper

Sometimes quitters do win, especially among smokers.

Nearly 100 Hamilton County smokers have kicked the habit long-term through the pharmacist-assisted Win by Quitting smoking cessation clinic at the UC Barrett Cancer Center at University Hospital.

Supported by the Ohio Tobacco Prevention Foundation, UC and University Hospital, the individu- alized 12-week program is free to qualifying individuals.

Participants work with Jane Pruemer, PharmD, Aprupa Mehta, MD, and Shauna Buring, PharmD, to form individualized smoking cessation plans.

The team uses both behavior modification techniques and pre- scription medications, which are provided at no cost, to help people stop smoking.

“We know that about 70 percent of Americans who smoke want to quit, but only about 15 percent succeed in doing so on their own,” says Pruemer, the oncology phar- macist who runs the clinic two days a week.

Since the program’s inception in late August 2004, about 534 patients registered for the local program and attended at least one visit.

For those who completed at least three visits, about 72 percent of participants who quit smoking initially and about 56 percent reported kicking the habit for good.

“Anyone who is serious about kicking the habit and improving their overall health should take advantage of this free program sooner rather than later,” says Mehta, a medical oncologist who specializes in lung cancer and provides medical oversight for the Win by Quitting program.

“People have unique stumbling blocks that interfere with their ability to quit smoking. For some people, it’s emotional or mental stress. For others, it’s anxiety or life changes,” says Pruemer.

“To help the person successfully quit, though, we need to under- stand those barriers and form a strategy for overcoming them,” she adds.

According to the Centers for Disease Control and Prevention, smoking is the single most common cause of preventable death and disease in the United States, and has been linked to an increased risk for lung cancer, cardio-vascular disease, emphysema and other respiratory diseases.

In addition, the habit has been connected to hypertension, emphysema, heart disease and chronic coughing and colds.

In Greater Cincinnati, the prob- lem is magnified by a higher-than-average percentage of adult smokers (30 percent) compared to the rest of Ohio (22 percent) and the nation (21 percent).

James Reynolds, a 37-year-old lighting designer from the west side of Cincinnati, says he hasn’t puffed a cigarette since early October 2007.

Reynolds began smoking at age 19, and although he’s tried multi- ple times to quit on his own— including at least three times this year—he didn’t experience any success until enrolling in Win by Quitting.

“Win by Quitting patients have access to no-cost prescription medications, including Chantix, nicotine patches or an extended release product that helps decrease smoking urges (bupropion).”

“Stress, anxiety and boredom have always driven me to smoke,” explains Reynolds. “But after nearly 20 years of smoking, I have a stronger desire to quit and improve my health, save money and elimi- nate my dependence on cigarettes.”

Pruemer stresses that it’s never too late to experience health benefits from ceasing to smoke.

“We don’t give up on people who are willing to stick to the program. But to succeed, the patient needs to commit to quitting.”

—Jane Pruemer, PharmD

Jane Pruemer, PharmD, and pharmacy student Chad Droge demonstrate how clinicians measure carbon dioxide in the lungs. The chemical is one of about 4,000 found in cigarette smoke.

How to Join the Program

The Win By Quitting program takes place at the UC Barrett Cancer Center at University Hospital, 334 Goodman St. The individualized, 12-week pro- gram is free to Hamilton County residents. New patients are accepted on an ongoing basis. Appointments are available Monday through Friday by call- ing (513) 585-CARE.

For more information, call Jane Pruemer at (513) 585-8272.
Hands-On Initiative Prepares Medical Students, Residents for Treating Diverse Patient Populations

Family Medicine Earns $600,000 Grant to Teach How to Adapt Health Care Delivery to Each Patient

By Katie Pence
katie.pence@uc.edu

Health care is very complicated in our society. It has become even more complex recently as doctors struggle with the cultural, linguistic and socioeconomic barriers that patients bring to the examining room every day.

But UC is working to change all of that.

For the past three years, faculty members from the departments of family medicine, internal medicine and pediatrics have joined together to form the Initiative on Poverty, Justice and Health (IPJH), which helps prepare medical students and residents for these challenges.

IPJH first developed around the desire of these faculty members to teach others about caring for underserved patients.

“The skills needed to provide high-quality care to underserved patients are similar, whether it occurs in Cincinnati or abroad in developing countries,” says Tiffany Diers, MD, an assistant professor of medicine and codirector of IPJH.

“Health providers must communicate effectively with patients from many different backgrounds and provide the best possible medical care given the limited resources available,” Diers adds.

With the goal of developing these skills among medical students and residents, the department of family medicine was awarded a $600,000 grant from the Health Resources and Services Administration in 2005 to fund IPJH’s activities.

IPJH now runs both medical student- and resident-level programs aimed at caring for the underserved.

A four-year Medical Student Scholars Program, focused on international health initiatives and care for the underserved, now has 24 students participating. These students engage in clinical work with faculty at underserved sites and attend learning sessions on a variety of topics related to care of the underserved.

According to Doug Smucker, MD, an associate professor of family medicine and codirector of the IPJH effort, the scholars program helps to strengthen and expand the interests of students who want to work with underserved populations.

In addition, a resident rotation is open to residents from family medicine, internal medicine, pediatrics and pediatric medicine as an elective.

Residents have the opportunity to participate in learning sessions focused on the impact of poverty in health, cross-cultural communication, health literacy and Latino health care. Field trips to the local Medicaid enrollment office, community agencies and homeless shelters are also part of the rotation.

Diers says these programs were developed to further encourage students who may become disillusioned by their experiences.

“Our goal with IPJH is to create educational programs that support medical students and residents in their desire to provide excellent care to these patients and to continue to do so once they are in practice,” she says.

IPJH has provided a forum for faculty to develop their own expertise in teaching and caring for the underserved. The faculty group as a whole has worked on curriculum development and teaching skills, but each faculty member has individually worked on a focus area to contribute to the group.

For Diers, that area is Latino health.

“The Latino community is growing rapidly in Cincinnati and is comprised primarily of people who have been in this country for less than 10 years,” Diers says.

“Coming from a variety of countries in Latin America, the population is very diverse. With such a diverse and newly immigrated population locally, we are working hard to identify the needs of the patient population, to educate our trainees and adapt our health care system to better serve them.”

Diers is the chair of the newly formed Latino Health Collaborative of Greater Cincinnati, in which UC faculty members are partnering with Latino service organizations and community members to help improve the health status of the local Latino community.

The organization recently received $20,000 from the UC Faculty Development Council to support these efforts.

“The national need for improving care of underserved populations is increasing,” Diers says.

“The IPJH faculty group is taking steps to strengthen underserved care by training and encouraging UC students and residents to find ways to make a positive difference in their communities.”

Pharmacist Chairs World Conference in China

Abdel Sakr, PhD, (right) professor and director of Industrial Pharmacy at UC’s James L. Winkle College of Pharmacy, organized and served as congress chair of the 67th International Pharmaceutical Federation’s (FIP) meeting held in September in Beijing, China. Sakr organized the Industrial Pharmacy Section and led a two-day workshop on tabbing, PAT and controlled release technologies.

Here, Sakr congratulates Abdel Aziz Saleh, PhD, who won the 2007 FIP Industrial Pharmacy Section Medal, the section’s highest honor, for his contributions to industrial pharmacy. Saleh, a former student of Sakr’s while he was a professor in Egypt, works for the World Health Organization.

Also representing UC at the event, which was attended by many UC pharmacy graduates now working throughout the world, was pharmacy faculty Jill Martin, PharmD, Giovanni Pauletti, PhD, and Marianne Ivey, PharmD.

with Dr. Koh, Stern adds. “Her high energy, enthusiasm and desire to include all faculty in her plans to move forward make her an ideal person to lead the department.”

In addition to his academic responsibilities, Strakowski serves as attending chief of psychiatry at University Hospital and as a consulting psychiatrist at Cincinnati Children’s Hospital Medical Center and the Cincinnati Department of Veterans Affairs (VA) Medical Center.

Strakowski has served in numerous leadership positions for the department and college and in the psychiatric profession.

An experienced researcher, Strakowski is the director of the Center for Imaging Research, a core facility for the medical college, and is the principal investigator of a large National Institute of Mental Health (NIMH) center award.

He has served on several NIMH and VA federal grant review sub-committees and is a reviewer for most major psychiatric journals.

He has received a number of awards, most notably the Gerald L. Klerman Award from the National Depressive and Manic-Depressive Association. He has been named among the “Best Doctors in America,” and has nearly 200 peer-reviewed publications and a number of chapters, published abstracts and solicited reviews.

Kohb established and directs the immunogenetics, translational and biodefense research programs at UTHSC. She also is a senior research career scientist and chief of the Lymphocyte Research Program at the VA Medical Center in Memphis.

Additionally, Kohb directs the Mid-South Center for Biodefense and Security, a multidisciplinary research and education center dedicated to improving preparedness in natural or deliberate biological crises and pandemics. She represents the University of Tennessee for the Southeast Regional Center of Excellence for Emerging Infections and Biodefense and is on the partners’ board of the Southeastern Center for Emerging Biological Threats.

A native of Cairo, Egypt, Kohb runs a systems biology, translational research program and has expertise in immunology, immunogenetics, microbial pathogenesis, molecular biology, genomics, proteomics, protein chemistry, biochemistry and enzymology.

She has collaborated with many physicians, nationally and internationally on clinically applied research, particularly in the areas of infectious diseases and solid organ or cellular transplantation.

Recently, she has been developing novel models to better define the effect of host genetic variability on disease susceptibility and identify interactive molecular pathways that control disease outcomes. She is a strong advocate of individualized medicine.

A 1997 Fulbright Scholar, Kohb will replace Jerry Lingrel, PhD, who has chaired the department since 1981. Lingrel will remain chair until Kohb arrives.

“Dr. Lingrel has been a tremendous leader for the department, and his service to college has been extraordinary,” says Stern. “Fortunately for us, he will remain at UC as professor to continue his research and education responsibilities.”

CHAIRES: New Leadership Announced from page 1

University of Cincinnati Academic Health Center

Academic Health Center Communications Services/D. Collins

FINDINGS November 2007
Students Find Teamwork Is Best for Patient Care

New Course Fuses Together Students From Nursing, Pharmacy, Allied Health Sciences and Social Work

By Jamie Davis Kaun
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Pharmacy student Heidi McDavid wasn’t sure what to expect when she signed up for an interdisciplinary class that would have her working with students from all three colleges of health sciences, nursing, and social work.

What she gained was more confidence in her own profession and a greater respect for other health care professionals. And the experience came before she began clinical training.

McDavid is one of nearly 100 students who have taken an interdisciplinary case study class for students from the colleges of allied health sciences, nursing, pharmacy, and the school of social work.

“The course’s goal is to expose students to multiple health care disciplines and encourage them to work as a team to create a comprehensive patient care plan,” says Bonnie Breitenstein, PhD, a professor in the College of Nursing.

Eight faculty teach the elective course, called Case Studies in Interdisciplinary Health Care. The course is offered during winter quarter and open to any student interested in health care.

Students meet for 2.5 hours once a week to discuss realistic patient cases—those they might actually encounter in a clinical setting. The class is divided into diverse teams representing various health care professions.

Each team member shares how his or her profession would treat the patient based on the patient’s diagnosis, education and culture, such as use and/or belief in herbal therapies, complementary medicine and healers.

“Health care providers can’t assume that a patient’s beliefs are the same as theirs,” says Bethanne Brown, PharmD, assistant professor in the James L. Winkle College of Pharmacy. “As the U.S. becomes even more diverse, it is increasingly important to take a patient’s cultural beliefs into consideration when developing a treatment plan.”

After each team discusses the case and develops a treatment plan, one team presents their plan to the class—which often leads to additional discussion. The course also features guest speakers who share their experiences and insights from working in health care or a related field, such as a community activist working with a specific population.

“Most students are not exposed to other health care professionals until they begin clinical rotations,” says McDavid.

“During this class, I worked with students studying nursing, social work, nutrition and other fields. It was such a unique experience because you are exposed to coursework different than your own and you get a better understanding of what each other does.”

McDavid says the class helped her learn how to communicate more effectively with other health care professionals and to value their skills and input on providing good patient care.

Megan Schwellner, RN, a recent college of nursing graduate who now works at University Hospital, says she was surprised and impressed by the level of knowl-edge students in other disciplines had on nursing topics.

“There are many common mis-conceptions in the health care field regarding the roles and responsibilities of different disciplines,” says Schwellner.

“People seemed genuinely inter-ested in understanding each oth-er’s disciplines and how one another approaches patient care.”

McDavid, now a fourth-year pharmacy student, agrees.

“There are a number of commu-nication barriers that exist in health care today. This class is a good way to help people entering the health care profession over-come them earlier in their career.”

Legislatures Turn to Nursing Dean for Help in Addressing Nursing Shortage

Andrea Lindell, PhD, Earns Appointment on Nursing Educators State Committee

By Jamie Davis Kaun
jamie.davis@uc.edu

With clinical and faculty nursing shortages increasing—a shortage of 340,000 registered nurses is expected by 2016—it’s important to develop more nursing leaders, says College of Nursing dean Andrea Lindell, PhD.

Lindell was recently appointed to a committee that gives her the opportunity to do just that in Ohio. As a member of the state of Ohio’s Nursing Education Study Committee, Lindell will study the current challenges of faculty and clinical placement sites for nursing education programs.

Lindell was nominated to the committee by 13 state legislators and appointed by the Ohio Speaker of the House Jon Husted.

The 15-member education committee will prepare and submit a report to the general assembly focusing on strategies to increase the number of nursing faculty and training opportunities for nursing students in Ohio.

Insufficient faculty and lack of clinical training sites are among the reasons U.S. nursing schools turned away 42,886 applicants from baccalaureate and graduate nursing programs in 2006.

“I’m honored to represent the profession of nursing on this committee. We’re studying an area that’s not only affecting Ohio but the entire nation,” says Lindell.

“Nursing faculty is desperately needed to teach the future genera-tion of nurses as baby boomers age and the need for health care increases.”

The committee includes Ohio state representatives and congress-men, members from the Ohio Nurses Association, Ohio Board of Regents, Ohio Hospital Association, Ohio Association of Community College Presidents, the Licensed Practical Nurse Associa-tion of Ohio and nursing educa-tors.

The committee will begin work in January 2008 and plans to submit their report by the end of the year to the Ohio General Assembly.

AWARD: Hove Wins ‘Highest’ Young Scientist Honor

Hove’s nomination came from the National Institutes of Health (NIH). Because the NIH recom-mends only first-time winners of its R01 research grant program for PECASE awards, scientists have just one shot at an NIH nomination.

“It was extremely humbling just to be nominated for this kind of recognition, let alone to actually be named a winner,” says Hove. “I’m really very grateful to the NIH and the National Center for Research Resources for their support of my work, and to the people in my lab and the great colleagues and men- tors I’ve been lucky enough to work with over the years.”

“I’m especially delighted to have the honor of representing UC on such a grand stage and am thankful for the tremendous support the university has given me as I have developed my research program.”

Hove began his scientific career at the California Institute of Technology (Caltech), studying the movement of water around swim-ming fish. UC recruited him in 2004 to head up the zebrafish facility at the Genome Research Institute, where he switched his focus to studying the “flow” of fluid and cells within organs and organ systems with the aid of these freshwater tropicales.

In 2006, Hove was awarded a four-year, $1.53 million R01 grant from the National Center for Research Resources of the NIH to create a laser-illuminated “4-D camera.”

He hopes the camera will pro-vide scientists with a better way to study cell and fluid movement in three dimensions plus the fourth “D”—real time.

Hove is working with colleagues at Caltech and the University of Washington to take Caltech’s prototype 4-D camera technology and redesign it to fit on the end of a microscope.

Hove says he hopes to have the technology ready by the end of grant period and suspects that it will be useful to researchers study-ing flow not only in zebrafish mod-el, but also in cultured cells and in other animal models where tissues and blood vessels are transparent enough to view.

Hove says he’s thrilled to add a PECASE award to his accomplishments and we’re thrilled to add a PECASE award to the lineage of honors received by one of our own.”

Bethanne Brown, PharmD, of the Winkle College of Pharmacy, is one of eight instructors of the Case Studies in Interdisciplinary Health Care course, which brings together students from other health-related majors.
Amanda Harper

Breast cancer is no longer primarily a postmenopausal woman’s disease. With advances in early detection and enhanced awareness, more women are being diagnosed with breast cancer earlier than ever before. But that early diagnosis comes with a lifetime of worry about recurrence and specific concerns related to younger women: the intimacy, future childbirth and personal well-being.

Many young breast cancer survivors are seeking strategies and support to help move on with the rest of their lives. Now a new young breast cancer survivors group can help them do just that, focusing not just on physical healing but on holistic emotional and spiritual healing for life after breast cancer.

Jennifer Manders, MD, a UC breast surgeon, decided to organize a support group for women under 45 when her younger breast cancer patients repeatedly told her they wanted—and needed—a way to come together with other women facing the same challenges.

So she facilitated a supportive communication network to help women deal with their diagnosis through shared experiences. This isn’t your typical support group,” explains Manders. “We don’t dwell on the nitty-gritty issues surrounding cancer diagnosis. We’re focused on the unique emotional, physical and spiritual healing needs of younger women after breast cancer. The group is really about doing everything you can to improve the way you live your life.”

Since the group’s first meeting in March 2007, the group of about 20 has explored a diverse array of topics:

- Cooking for wellness, including practical tips about buying organic produce and cooking healthy meals filled with fresh ingredients;
- The impact of positive energy and visualization on overall health;
- Exercises that help the body recoup and strengthen after breast surgery (including regaining range of motion);
- Letting go through relaxation and meditation to release overall tension and stress;
- And what Manders called a “community resource connection,” where attendees learned about why courses of treatment differ by person and options for reconstructive surgery.

In December, they’ll learn all about yoga and its physical (and mental) health benefits.

The group isn’t limited to UC patients—it’s open and free to anyone who could benefit. Bridgetown resident and breast cancer survivor Jamie Byrne, a 36-year-old mother of four, says she wanted a group that was “about living after cancer and getting on with your life, not languishing in the diagnosis.” In 2006, Byrne was diagnosed with stage-2 breast cancer and underwent full treatment, including a double mastectomy.

“I had no interest in going to ‘traditional’ patient support groups to talk about the depressing side of cancer,” recalls Byrne. “This group is fun—we do things that can help you move beyond the cancer chapter in our lives. I know the group will be there for me for years to come.”

By and fellow breast cancer survivor Jennifer Flick were two of the original women attending Manders’ sessions.

Flick, who was diagnosed at age 40, reiterates the group’s importance in helping her move on with her life.

“Getting stuck in the diagnosis only gives it more power,” says Flick. “It’s been phenomenal partnering with a physician who believes healing isn’t just about medicine. I can incorporate part of the healing on my own, and put some of that power back in my hands by the choices I make in my life.”

“I’ve learned from experience. It’s best not to focus on the fact that breast cancer happened to you, but to focus on what you can do to make your life better as a result,” she adds.

For more information on the group, call (513) 584-5354. The next meeting will be held Tuesday, Dec. 11.

UC Awarded $1.6 Million for Lead Hazard and Mold Studies

The U.S. Department of Housing and Urban Development (HUD) has awarded about $1.6 million in research grants to UC environmental health scientists investigating lead and mold exposure in homes.

UC was one of just four institutions in Ohio to receive a portion of the $118 million awarded nationally by HUD.

Grants were given to state and local communities, public health organizations and scientific research institutions for projects aimed at protecting children and families from dangerous lead-based paint and other home health and safety hazards.

Tina Reponen, PhD, professor of environmental health, received more than $785,000 to conduct a comprehensive analysis of the health effects of total mold exposure in children starting from infancy to age 6.

Her goal is to identify a method that can predict adverse health effects caused by residential mold exposure, most notably those related to asthma and allergic rhinitis.

In conjunction with the National Center for Healthy Housing (NCHH), Scott Clark, PhD, professor of environmental health, is involved in two HUD grants totaling about $500,000 for studies related to lead-based paint exposure.

This new funding will allow Clark and his team to learn more about the impact of soil lead treatment on interior and exterior home dust lead levels.

It will also allow the team to assess dust and soil lead levels and paint condition in homes with different window lead remediation treatments. As a subcontractor to the NCHH, Clark will compare the results in homes where windows were replaced with levels in homes that have had other window treatment methods applied, such as paint stabilization, to determine which method is more effective at eradicating the problem long term.

Bill Menrath received a $328,000 grant to improve the accuracy of a commercially available wipe method to test for settled dust on the floors, window sills and window troughs of homes.

He believes this test might help identify the presence of lead dust hazards following renovation, repair, painting and lead hazard reduction activities.

By Amanda Harper

Jennifer Manders, MD, (right) and Jamie Byrne share a laugh while making smoothies during a recent meeting focused on cooking for wellness. Manders says the group brings women with the same challenges together.

UC—CARE/Crawley Building Progressing

The Medical Sciences Building (MSB)—CARE/Crawley building construction project is about 85 percent complete. While outside progress is evident, work inside the building, shown above, is rapidly taking shape. Seven glass bridges, which will connect the web lab floors in the CARE/Crawley building to the MSB, are nearing completion. Workers are also wrapping up the flooring installation on the MSB’s E-level and atrium, and the installation of benches and cabinets in both the teaching and wet labs in the CARE/Crawley building.
Knocking Out ‘Cell Receptor’ May Help Block Fat Deposits in Tissues, Prevent Weight Gain

By Amanda Harper

UC pathologists have identified a new molecular target that one day may help scientists develop drugs to reduce fat transport to adipocytes (fat cells) in the body and prevent obesity and related disorders, like diabetes.

"Our study has shown that this molecule directly impacts the rate of fat transport in the body, so with further study it could be a new target for drugs aimed at controlling obesity."

For the study, two independent groups of LPR1-knockout mice were developed: one studied by Hui and his team at UC, the second monitored by collaborator and co-senior author Joachim Herz, PhD, at the University of Texas Southwestern Medical Center.

Researchers discovered that when the LRP1 receptor was active, adipocytes absorbed more fat and triggered a series of cell-signaling activities that caused the body to increase overall fat storage. Although both groups of mice were fed the same low-fat diet, the LRP1 knockout mice stored less fat and experienced no significant weight gain.

"This shows that LRP1 is a critical regulator of lipid absorption in fat cells. Functional loss of LRP1 leads to fewer lipids being absorbed into the cells and transported throughout the body," explains Susanna Hofmann, MD, first author of the study and pathology research instructor. "Preventing these interactions in our model prevented the onset of obesity and diabetes."

Because the genetically altered mice had smaller fat stores to provide warmth, muscular activity is naturally increased to raise body temperature and may have also contributed to the lack of weight gain, Hui adds.

Prevaling scientific knowledge says that dietary factors—primarily consumption of triglyceride-rich foods such as fried foods—contribute to obesity and diabetes. When energy intake surpasses energy expenditure, excess calories are deposited as fat in adipose tissue and cause people to gain weight.

According to Centers for Disease Control and Prevention, up to 33 percent of American adults between the age of 20 and 74 are overweight or obese, primarily due to chronic consumption of diets high in fats and carbohydrates and a lack of exercise.

This has led to increased rates of Type 2 diabetes, coronary artery disease and other health complications.

Coauthors of this National Institutes of Health-funded study include Todd Greer, Erin Grant, Lauren Wancata, Andrew Thomas, Joshua Basford, Dean Gilham, PhD, Matthias Tscchip, MD, and Diego Perez-Tibare.

UC Identifies Molecular Target That May Control Fat Deposits

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Gap: Medical Teamwork Improves Quality of Care for Patients

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‘The preoperative evaluations are much better now,’ Friedrich says. ‘Once a patient is referred to a cardiologist, we can run tests and, based on the results, determine our next step.’

This also eliminates the problem of reserving operating space which could cost the hospital sever-time of dollars if a cancellation is made on the day of a surgery,’ Friedrich adds.

Patients are usually seen days to weeks before their surgical procedure so they can receive appropriate treatment and the procedure can be rescheduled if necessary.

Physicians in the division of cardiovascu-diarovascular diseases make them-selves available on a same-day basis following a patient’s evaluation by an anesthesiologist. They also coordinate testing with anesthesi-ology visits for patients who travel long distances.

‘This standardization of evaluation is a way to UH to improve quality of care,’ Friedrich says.

Programs designed to reduce preventable errors are becoming more important. Beginning in October 2008, the Centers for Medicare and Medicaid Services will not reimburse hospitals for eight preventable hospital-acquired infections and medical errors.

‘The list will grow,’ Friedrich predicts. ‘Also, private insurers will more than likely follow suit. This is a way to create collabora-tive, evidence-based data showing that these evaluations are improv-ing the way we treat patients.’

And the program is working. According to a pilot study from February 2005, the areas of tho-racic and vascular surgery had same-day cancellation rates between 6 and 9 percent. Since the evaluation program started, their combined rate has dropped to below 0.2 percent.

Currently, about 25 to 30 per-cent of patients are seen in the pre-operative clinic before undergoing surgery. Clinic visits are standard for vascular, thoracic, orthopedic and urologic surgeries. Transplant, otolaryngology and gynecology will soon be added to the list.

Davis is living proof this type of evaluation is beneficial.

‘One wrong move and I would have been a goner,’ he says.

Now, Davis is getting stronger, and only 45 days after his angio-plasty, he was strolling through the thick woodlands of Mississippi with his son.

‘I can breathe better,’ he says. ‘Occasionally, I’ll get a small pain, but it’s nothing like before.’

His original procedure has been rescheduled.

Davis’ wife, Theresa, says her husband only mentioned chest pain after the fact.

‘He told the nurses that he would have chest pains for awhile and then they would stop,’ she says. ‘The nurses said, ‘Why didn’t you tell us?’’

But after Davis received treatment, Theresa noticed a difference in her husband.

‘He seems more active,’ she says. ‘The whole experience really scared us. Thanks goodness they found the problem before he went into surgery. I want to keep him strong and well for a long time to come.’

Surgeons Help Build Medical Clinic in New Orleans

Six members of the UCSurgents team recently participated in a nationwide effort to rebuild a large medical clinic in New Orleans. The project, organized by the American College of Surgeons (ACS) Operation Giving Back, took place in early October.

The UC team, which included from left to right) residents Karen Hussao, MD, and Sha-Ron Jackson, MD, and faculty member Timothy Pritts, MD, PhD, helped excavate land to make room for the new medical clinic that will be built in the city’s ninth ward district. Also participating in the effort was faculty member Michael Nusbaum, MD, and residents Jocelyn Logan-Collins, MD, and Thomas Shen, MD.

Operation Giving Back was developed in response to a study conducted by the ACS Board of Governors Committee on Socioeconomic Issues. They found that many surgeons considered volunteering an integral component of their professional identity. For more information, visit www.facs.org.
How many women show up at trauma centers with assault-related gunshot wounds and stabbing injuries? How many never make it there?

Who are these women? Why are they being assaulted? Who is assaulting them?

Second-year medical student Heather Finlay-Morreale wanted answers. “I’m personally driven to speak for those who I feel don’t have a voice,” she says. “Women and girls injured by shootings and stab- bings, well, I felt they had no voice.”

Gathering such data is important to understanding risk factors for assault, she says, and for designing interventions to prevent assaults from happening.

Finlay-Morreale received her bachelor’s from Northwestern University. She then worked in basic and clinical research, most recently at the University of California, San Francisco (UCSF). It was at UCSF that she was drawn to clinical research, focusing on critical care.

The abundance of research opportunities drove Finlay-Morreale to apply for medical school at UC. The university’s Medical Student Summer Research Program gave her a forum for learning more about female assault victims.

During the program, Finlay-Morreale gathered medical records from University Hospital and homicide data from the Hamilton County Coroner’s Office. But the medical student went beyond the numbers. She spent nights in the hospital’s trauma bay observing and interviewing clinicians, police officers and patients.

In addition to interviews, she searched newspapers and court records to learn more about specific cases, then classified the relationship of the assailant to each assault victim she saw in the hospital or located in the coroner’s office.

Finlay-Morreale gathered some interesting results. “Many people assume nearly all assaults against women are com- missioned by intimate partners,” she says. “While this is often the case, it is not always true. I also found that assaults by intimate partners—parti- cularly when a gun is involved—were usually lethal.”

In other words, she says, “the data we gather from injured patients in the hospital doesn’t give us the whole picture. To really understand the scope of the problem, we have to look beyond hospital admissions and gather information about the women who go straight to the coroner’s office.”

“Really, what I saw is that if a woman is shot by an intimate part- ner, she rarely makes it to the emergency room,” says Finlay- Morreale. She presented her findings at the tri-annual meeting of the Medical Women’s International Associ- ation (MWIA), which was held in August in Accra, Ghana.

There, Finlay-Morreale gave a voice to another group—medical students seeking membership in MWIA. The organization has long denied full membership to stu- dents, but before the meeting wrapped up, MWIA members voted in favor of allowing students to join.

Finlay-Morreale also spent time at the Medical College of Ghana’s Korle Bu Hospital in Accra, learn- ing about the country’s ”brain drain” of medical providers. She gained first-hand knowl- edge of the state of trauma and critical care in an African teaching hospital, and the link between poverty and quality of health care.

Finlay-Morreale is currently writing a paper on firearm injury and will present an abstract on her assault research at the Western Trauma Association annual meet- ing in February.