New Microscope Melds Speed, Clarity for Dynamic Imaging

Technology Enhances Observation, Clarification and Data Collection Techniques for Biological Fluid Systems

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Patient Regains Voice, Wins Seat as Brown County Commissioner
With Help of Surgical Procedure and UC Health Airway Program

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AN INFORMATION RESOURCE FOR ACADEMIC HEALTH CENTER FACULTY, STAFF, STUDENTS AND COMMUNITY MEMBERS.
Research Reveals Mechanisms That Help Body Defend Against Inhaled Pathogens

By Katie Pence
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New research co-led by scientists at the University of Cincinnati and Boston University recently identified the mechanism that allows certain proteins to bind to sugars in the body to produce a defense mechanism against inhaled pathogens, such as the bacteria and viruses that cause common forms of pneumonia.

Focus on Science

Randall Sakai, PhD

Focus on Science is a column highlighting basic scientific articles at the University of Cincinnati and their latest research. To suggest a basic science to be featured, please e-mail uchealthnews@uc.edu.

Randall Sakai, PhD, is a professor of psychiatry and neuroendocrinology expert. He received his bachelor's degree in zoology from the University of Washington in 1982 and his PhD in biology in 1988 from the University of Pennsylvania. Sakai completed a postdoctoral fellowship in neuroendocrinology at The Rockefeller University, and after several years on faculty at the University of Pennsylvania, joined UC's faculty in 1999. He leads a lab at UC's Reading Campus and is editor-in-chief of the journal Physiology & Behavior. In 2010, Sakai and his team published data on the role of everyday stressors in the development of obesity.

Randall Sakai, PhD

When did you come to UC and what brought you here? I came to UC in August of 1999 from the University of Pennsylvania. One of the main attractions to coming here was the ability to work with friends and colleagues that I had known for at least 10 years previously who were at different universities around the states but were all moving to UC. Share a bit about your current research focus. My research area is neuroendocrinology. That is, how hormones affect the brain, behavior and physiological function. Currently, the lab focuses on how stress can have long-term effects on metabolism and affective disorders. These stressors can occur generally or postnatally and still have profound effects in adulthood. I am fortunate to have members in the lab that are passionate in their studies and keep the science moving.

What implications might your research have on patient care? We have developed new, neuroendocrinological models of stress that are consonant with stressors that are relevant. These models extend a whole constellation—from the perturbations associated with assisted reproduction to psychosocial stress as adults and its effects on affective disorders and metabolism. I am fortunate to have mentors and colleagues who are equally passionate about these studies to work with.
You've also worked in environmental health policy. Tell us about that.

"After working in the manufacturing industry for 13 years, I decided to go into academia at the University of Massachusetts Lowell. I was one of the first faculty members who worked in the university's work environment department with an industrial/fiber background. This background served as a basis to look at other work environments in other worker sectors, such as service and construction. It was a rewarding career. I became the department chairperson for seven years and conducted research and taught for 22 years at UMass."

Is there a particular research project that stands out in your career?

"It's hard to measure that. In addition to my projects at UMass, I was part of efforts to design international educational programs in occupational and environmental health. One of the projects I was especially glad about was my collaboration with the government of Columbia—which is where I am originally from. They invited me to develop curriculum and teach courses on occupational health for the Colombian Ministry of Health for three consecutive years in the 80s. It was a fruitful interaction. I did the first asbestos sampling ever taken in Colombia and we trained a substantial number of engineers and physicians from the government and workers from the asbestos industry on occupational health issues. That was personally fulfilling for me."

How did you feel when you were nominated for your current role?

"It was a great honor. The CSB is an agency that I have followed through the years and they are a very active agency. It's dramatic work. One important reason the position of chair was of interest to me is that I am familiar with the government and workers from the asbestos industry on occupational health issues. That was personally fulfilling for me."

When you are not working, what is your personal life like?

"I dabble a little in playing piano. I am very interested in classical music. Washington, D.C., is a great place for theater as well, so I am enjoying reading, traveling and cooking."

For a video explaining more UC led research that found overexpression of Hsp20 in heart cells could save lives, visit healthnews.uc.edu/video.
Lifelong Smoker Encourages Others to ‘Snuff the Habit’

By Amanda Harper

While flipping through the newspaper one day, Joann Behm saw a story about a clinical trial being conducted at UC College of Medicine that tests a new way of screening for lung cancer in people at high risk for the disease.

Making the call to enroll was a no-brainer for her. She had been smoking cigarettes since she was 14.

“I saw the clinical trial as a potential benefit to me. They were simply performing scans to look for early warning signs of lung cancer. If I didn’t want to proceed, I didn’t have to. Once I met the treatment team, I felt very confident and realized that if I had lung cancer this would help me find it sooner,” says Behm.

Still a smoker then, Behm, along with about 130 other heavy smokers over 50 who had smoked at least one pack of cigarettes per day for 20 years—agreed to participate in the trial. Participants completed a questionnaire about their smoking habits and medical history then underwent annual low-dose computed tomography (CT) scans for five years to screen for signs of lung cancer.

“Tired the day before surgery that I would have one last cigarette and never smoke again,” recalls Behm. “I was chomping at the bit to find the cancer early as well as be able to quit so easily. I know it’s not like that for everyone who try to quit smoking.”

Joann Behm

She says her son—also a smoker—was an anti-smoking convert after her diagnosis. Now they both encourage others to “Snuff the Habit.”

Behm was diagnosed with lung cancer. UC Health surgeons removed the upper left lobe of her lung. Fortunately, the cancer was caught so early that no additional therapy was needed.

“I was very fortunate to find the cancer early as well as be able to quit so easily. I know it’s not like that for many people who try to quit smoking.”

Joann Behm

While flipping through the news, Behm discovered the UC College of Medicine that tests a new way of screening for lung cancer in people at high risk for the disease.

Want to Quit Smoking?
The pharmacist-assisted Win by Quitting smoking cessation program offers an individualized, 12-week program to help smokers snuff the habit for good. Appointments are available on Mondays and Thursdays at the UC Health Barrett Cancer Center, located at 234 Goodwin St. To schedule an appointment or for more information, call (513) 585-QUIT (7848). Appointments are free to all individuals. The program is supported by UC and UC Health University Hospital.

UC Health’s multidisciplinary thoracic cancer team—made up of pulmonologists, radiologists, medical oncologists, radiation oncologists, pathologists, gastroenterologists, thoracic surgeons, experienced oncology nurses and fellowship-trained surgeons—specializes in treating the entire range of cancers affecting the chest cavity. UC Health thoracic surgery team was the only one in the Tri-state offering rib-sparing video-assisted thoracoscopic surgery (VATS) procedures. The technique requires only a few small incisions in the abdomen and chest to insert the minimally invasive tools used to operate.

Nominate a Nurse for Nightingale Awards

The College of Nursing is accepting nominations for the 19th Annual Florence Nightingale Awards for Excellence in Nursing. Nominations can be submitted from patients, family and friends, colleagues, physicians and other health care workers. The awards recognize registered nurses for their contributions to direct patient care.

Board of Advisors Award winners will receive $1,000 and a commemorative award. Dean’s Award winners will receive $400.

Nominations are due by Friday, March 4. Online applications are encouraged at nursing.uc.edu/centers/nightingale_awards. Print forms also can be downloaded at the site. The awards banquet will be held at 6 p.m. on Thursday, April 28, at the Hyatt Regency in downtown Cincinnati.

Kevin Joseph Named ‘Top 25’ in Becker’s Hospital Review

Kevin Joseph, MD, UC Health emergency medicine physician and president and CEO of West Chester Hospital, has been named one of the Top 25 health care rising stars under age 40 by Becker’s Hospital Review. Becker’s Hospital Review is a national, bimonthly publication offering business and legal news and analysis relating to hospitals and health systems.

Joseph, 36, is a former resident at University Hospital and an assistant professor in the emergency medicine department. He joined West Chester Hospital as medical director of emergency medicine before the hospital opened in 2009 and was appointed president and CEO as well as senior vice president for UC Health in September 2010.

SAVE THE DATE: Robert Adolph Memorial Feb. 27

A memorial for the late Robert Adolph, a former professor emeritus of medicine in the division of cardiovascular diseases, will be held from 10 to 11 a.m. on Sunday, Feb. 27, in Kreeger Auditorium. The program will feature musical selections and messages delivered by his family, colleagues, students and friends of Adolph. For more information, contact Karen Christan at karen.christan@uc.edu. Adolph died Dec. 12.

Davis Wins MLK Grant

Kenneth Davis Jr., MD, a professor in the department of surgery, was awarded a grant to study the impact of tobacco on lung cancer. The 39th Annual Reverend Dr. Martin Luther King Jr. Memorial Celebration on Jan. 14. His $1,000 award will be used to help prevent trauma in inner-city youth in partnership with the Boys and Girls Clubs of America. The division of trauma and critical care also announced that it would double his grant to total $2,000. In addition, Rebecca Lehman, program coordinator for the UC Racial Awareness Program, and Louise Mapp, a UC Health University Hospital nurse, were recipients of MLK grants.

Get Smart With a Healthy Heart Seminar Feb. 16

Stephanie Dunlap, DO, associate professor in the cardiovascular diseases division and medical director of the Heart Failure and Cardiac Transplant Program, will discuss ways to improve heart health from noon to 1 p.m. on Wednesday, Feb. 16, at 454 University Hall. This is a brown bag lunch. Registration is required at www.uc.edu/hn/trainingopportunities.

Collaboratory Open House

The College of Nursing will showcase its Collaboratory classroom at an open house from 3 to 5 p.m. on Sunday, Feb. 14, in Proctor Hall Room 286. Housed in a traditional classroom space, the Collaboratory is divided into four segments, each with its own small group seated at large-screen wall monitors and smart boards. What makes it different from traditional small group interactions is how technology is integrated into the format. Each group has a wireless mouse and keyboard and whiteboards (similar to dry erase boards) that can be photocopied by a central “copy cam” and loaded for viewing on the monitor.

The classroom is an environment where everything in the room—from the physical layout to the technologies incorporat- ed—is designed to promote active learning. No RSVP is required. For more information, call (513) 558-5205.

The 65th anniversary of the UC College of Nursing nurse anesthetist program was celebrated Jan. 24 with an open house at UC Health University Hospital. The 27-month master’s level nursing program prepares certified registered nurse anesthetists for practice in a variety of health care settings in both the private and public sectors.

University Hospital nurse anesthetist Carolyn Nicholson (below), who graduated from the UC program in 1977, attended the open house. Nicholson also serves as a clinical instructor for College of Nursing students. “We’re pretty proud of our program,” she says, noting that it is also the fourth-oldest program of its kind in the country.

UC’s nurse anesthetist program is ranked 11th in the nation by U.S. News & World Report.

To view a video of Carolyn Nicholson talking about the certified registered nurse anesthetist program at UC, visit healthnews.uc.edu/video.