



2 Grant Funds Study of Health Effects From 'E Waste'



3 Young Geriatricans Receive Awards



4 Alumna Serves as Lab Sciences Ambassador

FINDINGS

Academic Health Center



Vol. 12, No. 12

DECEMBER 2010

HealthNews.uc.edu/findings

Curriculum Taskforce on Track to Apply Changes in 2011

By Angela Koenig
angela.koenig@uc.edu

This time last year, the 11-member Curriculum Analysis and Revision



Gunderson

Taskforce (CART), led by Anne Gunderson, EdD, associate dean for medical education, and Steve Baxter, MD, associate professor of emergency medicine, undertook a lofty goal: To have a basic schematic for the revised 2011-12 College of Medicine curriculum in place by October 2010.



Baxter

That goal has been met due to

the diligent efforts of the CART team and over 115 faculty members and administrators from the medical college, partners at the Academic Health Center, UC's Center for Enhancement of Teaching and Learning and Cincinnati Children's Hospital Medical Center.

"We have a very diverse and fantastic group of faculty at the grass roots level making the revisions happen," says Gunderson, who is also a board-certified geriatric nurse practitioner.

One appreciable change to the curriculum, she says, will be the integration of hands-on clinical training in the first year. The new curriculum will give first-year students the opportunity to immediately engage in clinical activities such as First Responder training, and by the end of the first semester, students will be able to complete a full medical history and physical exam.

"The new curriculum will enhance the excellent training that our students receive in the basic

sciences applicable to the practice of medicine," says Andrew Filak, MD, interim dean.

The next milestone is to develop the first-year educational content to be used starting August 2011. ■

New Role for Pathogen

Tamed by Genetic Engineering, Bacterium Could Provide Possible Alternative Power Source in Microbial Fuel Cells

By Keith Herrell
keith.herrell@uc.edu

Daniel Hassett, PhD, has devoted much of his career to investigating pulmonary disease through his research as a professor in UC's department of molecular genetics, biochemistry and microbiology. So how did he find himself at the forefront of efforts to develop alternative fuel sources?

Blame it on a bacterium called *Pseudomonas aeruginosa*.

"This is an organism that I routinely use in my lab, and it's a pathogen (disease-causing organism)," he says. "But it's an opportunistic pathogen, and we can genetically engineer it to make it a non-pathogen—basically, a pussycat."

This pussycat's meow has the ability to roar in the field of alternative energy. As Hassett puts it, "This is a proprietary organism generated here in my lab at UC to the point that it's no longer infectious to humans, animals or plants. But it can metabolize waste much better than just about any organism out there."

Hassett uses *Pseudomonas aeruginosa* in microbial fuel cells, which convert chemical energy to electrical energy. The microorganisms essentially "eat" waste products and convert them to electricity, water and/or hydrogen gas that could potentially be processed and returned to the energy grid for carbon credits.

"Everybody else is designing a fuel cell chassis," says Hassett.



Academic Health Center Communication Services/D. Collins

"It can metabolize waste much better than just about any organism out there."

DANIEL HASSETT, PHD

"We're making the engine—the bacteria that power the cell."

Hassett is also co-founder and chief science officer of Cincinnati-based Pilus Energy, LLC. Working with companies that deal in large amounts of waste, such as Anheuser-Busch, JTM Food Group and Griffin Industries, Pilus developed a reactor that will likely be used in pilot programs by Pacific Gas & Electric in northern California.

Griffin Industries, based in Cold Spring, Ky., is one of the largest animal byproduct rendering and recycling firms in North America.

"They can produce up to 150,000

gallons of waste a day," says Hassett, "and our bacteria love that."

Large-scale energy production may be a long way off, but Hassett is excited by the possibilities at UC and other universities working on microbial fuel cells.

"We have collaborators at Ohio State University and Ohio University and might also work with a group at Case Western Reserve University," he says. "I'm planning to write a grant proposal for an Ohio-based academic consortium of UC and those schools that would be based in my lab." ■

A STUDENT'S TAKE ON CURRICULUM CHANGES:

Fourth-year medical student Jesse Capone is a student representative, assisting faculty and administrators in the College of Medicine with a curriculum revision for the 2011-12 academic year.

What is your role in helping to revise the curriculum?

"I serve on the Curriculum Analysis and Revision Taskforce (CART) reform committee and the Clinical Science Integration Task Force working group."

How do the planned revisions compare to the current curriculum?

"It's a lot more integrated. Instead of having your preclinical years being crammed into the first two years, it's a lot more homogeneous. There's a better mix of academics and clinical experiences."

In what way does the mix benefit the student?

"You get an introduction to patient care much earlier. That way, you are learning what real medicine is all about."

Aside from classroom and clinical experience, what else will be different?

"We are going to be experimenting with technology a lot more to gauge student progress. There will be day-to-day tracking of what the students are doing, and technology will allow for a precise analysis of each student's experience. For example, you need to see a certain number of certain kinds of patients to meet accreditation requirements. Plus, it will provide options for quicker feedback." ■



Jesse Capone

Academic Health Center Communication Services/D. Collins

Nano-Solutions for Cancer Therapy?

A team led by biomedical engineering professor Peixuan Guo, PhD (right), will look to RNA to craft nanotechnology treatments for cancer therapy. Guo, working with Malak Kotb, PhD, chair of molecular genetics, discusses the unique characteristics that make RNA nanotechnology a promising field of research at healthnews.uc.edu/findings. ■



AHC Communication Services/D. Collins

Nursing, Allied Health Programs To Be Offered at New UC East

Transformation and collaboration were the prevailing themes for the Oct. 28 dedication ceremony of UC East—the newest UC educational facility, located in the former Ford Plant in Batavia. Four-year programs from the Colleges of Nursing and Allied Health Sciences will be offered in the new space. There will be shared classrooms, a clinical simulation lab and professional offices for faculty stationed there.

"The opening of UC East is the result of true collaboration among UC, the State of Ohio, Clermont County and Batavia Township Trustees and the developer, IRG. This is a result of collaboration with UC East involving three UC colleges and deans, nine departments, 800 students and 40 faculty and staff members," said UC President Gregory Williams. For more information, visit uc.edu/news and search for UC East. ■



UC Photographic Services/L. Venne

The Bearcat Mascot joins Larry Johnson, PhD, dean of the College of Education, Criminal Justice and Human Services, UC President Gregory Williams, PhD, Andrea Lindell, PhD, dean of the College of Nursing, and Greg Sojka, PhD, dean of UC Clermont College.

Environmental Health Researcher to Study Effect of 'E-Waste' on Human Health

By Amanda Harper
amanda.harper@uc.edu

Imagine 20 to 50 million tons of cell phones, computers, televisions, printers and other electronic devices piled up in your back yard.

That's how much electronic waste (e-waste) is produced across the world annually, much of it entering the landfills without regulation and with little regard to its impact on human health.

E-waste is quickly emerging as a global public health threat that—until now—has gone virtually unstudied. It's the complex mixture of metals—lead, mercury, cadmium, chromium and polybrominated diphenyl ethers (PBDEs)—that concerns scientists. Many of these substances alone cause adverse health effects in humans.

Aimin Chen, MD, PhD, of UC's environmental health department, recently received a highly competitive \$1.7 million National Institutes of Health grant to conduct a population-based study aimed at determining how exposure to this complex e-waste toxicant mixture

impacts human health. It will be the first major international population study to examine the human developmental effects of complex metal and organic pollutant mixtures found in electronic waste.

UC researchers believe pregnant women—and more specifically their growing fetuses and young children—living in developing

countries where primitive and informal e-waste recycling occurs are at increased risk for neurotoxicity.

"Because the brain is in a state of rapid development, the blood-brain barrier in infants and young children is not as effective as in adults, and neurotoxic substances—like heavy metals—can cause developmental damage," explains Chen.

UC has partnered with Shantou University in China to recruit about 600 pregnant women living in recycling and non-recycling communities in China to track neurological development of the fetus during gestation and through the first year of life. The selected recycling communities have a 15-year history of primitive, informal e-waste recycling activity. Mothers will be asked to give blood, hair and urine samples before 28 weeks of gestation and cord blood upon delivery.

Chen says universal restrictions on disposal of e-waste do not exist. In the U.S., there are no legally enforceable federal policies to regulate e-waste—only a patchwork of legislation in about half of the states. The European Union has federal legislation restricting e-waste disposal and is putting much of this responsibility on the device manufacturers.

"In countries where primitive recycling processes exist, human health—especially children's health—should drive regulation and management of recycling activities," says Chen. "Restricting the use of toxic chemicals in manufacturing electronic devices would help prevent exposures." ■



Chen

Academic Health Center Findings

DECEMBER 2010 Vol. 12, No. 12

Findings is a publication of the University of Cincinnati Academic Health Center, published on the first Monday of every month by the public relations and communications office. Its mission is to highlight current research, education and patient care news and happenings at the Academic Health Center. Findings is distributed to students, faculty, staff and community members.

Editor: Katie Pence

Copy Editor: Keith Herrell

Writers: Katy Cosse, Amanda Harper, Keith Herrell, Dama Kimmon, Angela Koenig and Katie Pence

Photography: Academic Health Center Communications Services

Managing Printer: UC Printing

Contact Us:

Phone: (513) 558-4553

E-mail: uchealthnews@uc.edu

Web: healthnews.uc.edu/findings

Facebook: facebook.com/UCHealthNews

Twitter: twitter.com/UCHealthNews

YouTube: youtube.com/UCHealthNews

Mail: Academic Health Center

Findings

University of Cincinnati

PO Box 670550

Cincinnati, OH 45267-0550

Copyright © 2010 University of Cincinnati. Material may be reproduced provided permission is granted and acknowledgement is given.

Find us on:



FOCUS ON SCIENCE

Christy Holland, PhD

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

A professor in the division of cardiovascular diseases, Christy Holland, PhD, completed her undergraduate degree at Wellesley College in 1983 and then went on to obtain several master's degrees and her doctorate degree in engineering and applied science at Yale University. She is a fellow of both the Acoustical Society of America and the American Institute of Ultrasound in Medicine and assumed the editorship of *Ultrasound in Medicine and Biology*, the official Journal of the World

Federation for Ultrasound in Medicine

and Biology, in July 2006. Holland is actively involved in teaching biomedical engineering and medical imaging, and she mentors and advises students within and outside of biomedical engineering educational programs. Holland has gained wide recognition nationally and internationally for her excellence and contributions in ultrasound and acoustics research. Most recently, she received the Acoustical Society of America Student Mentorship Award at the annual meeting in Cancun, Mexico, Nov. 15-19. Holland, who received her undergraduate degree in physics and music, continues to sing with the Knox Presbyterian Church choir in her spare time.



Christy Holland, PhD (left), with Kirthi Radhakrishnan

How long have you been with UC?

"I've worked at the University of Cincinnati since May of 1994. I started out in the department of radiology and was instrumental in creating the department of biomedical engineering. I co-authored a Whitaker Foundation Special Opportunities Award in 2000 that helped fund the creation of this interdisciplinary department. I recently moved to the division of cardiovascular diseases in order to focus on current research collaborations with Drs. Neal Weintraub, Keith Jones and David Manka."

What is your current research focus?

"My research interests include the use of ultrasound for stroke therapy, mainly to break up blood clots or to deliver therapeutics—like tPA—directly to the clot. I also study the bioeffects of diagnostic and therapeutic ultrasound and acoustic cavitation, or bubble activity. By exposing liposomes filled with drugs and bubbles to a sound wave in a targeted area of the body, the drug is released exactly where it is needed, and the bubble activity accelerates

uptake of the therapeutic. Using ultrasound and molecularly targeted agents, we may be able to deliver targeted therapies in a more efficient and less invasive way."

What are your most recent research contributions?

"We are developing and patenting an ultrasound technology to optimize a certain kind of bubble activity to promote drug delivery to diseased arteries."

How soon do you expect your findings to impact patient care?

"Once UC intellectual property surrounding the ultrasound-enhanced thrombolysis (break up of blood clots by pharmaceutical means) technology is licensed to a company—negotiations are currently ongoing—I would expect a medical device to be on the market for use clinically within five years." ■

Kirthi Radhakrishnan, who is under the direction of Holland, explains her recent research at healthnews.uc.edu/video.

NEWS EXTRAS

Grant Funds Innovative Global Health Research

The UC James L. Winkle College of Pharmacy received a \$100,000 Grand Challenges Explorations grant from the Bill & Melinda Gates Foundation to support a global health research project conducted by Giovanni Pauletti, PhD, titled "Tampon-Like Foam Device for Dual-Purpose Contraception." Pauletti's project is one of 65 grants announced by the Gates Foundation in the fifth funding round of Grand Challenges Explorations, an initiative to help scientists around the world explore bold and largely unproven ways to improve health in developing countries. The grants were provided to scientists in 16 countries on five continents. For more, visit healthnews.uc.edu.

Nominations Sought for Daniel Drake Medal

The Daniel Drake Medal is the highest recognition the College of Medicine bestows on its former students, former faculty, former residents or current faculty. Two awards will be given in 2011 to living individuals with present or past association with the College of Medicine. Nominees for the first award will be evaluated on the

basis of outstanding achievements in biomedical science as evidenced by major significant contributions to medical research. Nominees for the other will represent a distinguished career as a clinician-teacher. Nominations can be submitted until Jan. 31, 2011. For more information, visit med.uc.edu/drake/nominate.cfm.

Woodle Appointed William A. Altemeier Chair

E. Steve Woodle, MD, has been named William A. Altemeier Chair in Research Surgery. The chair's namesake served as chair of surgery from 1952 to 1978. Woodle has served as chief of the division of transplantation since coming to UC in 1999. A basic researcher in the field of transplantation, he has led landmark trials in immunosuppressive drug development and pioneered the development of early corticosteroid withdrawal regimens and the field of paired donation. Woodle also serves as chair of the Israel Penn Transplant Tumor Registry's board of directors and helped develop the Paired Donation Network, the largest paired donation program in the world.

Endowed Lectureship in Mind-Body Interface

The department of public health sciences announces the founding of "The Dr. Khushman V. Sanghvi Memorial Lectureship on the Mind-Body Interface in Healing and Health." The lectureship's objective is to acquaint health care professionals and others with approaches to expand the practitioners' equipment and methods in patient care. The annual lectureship, scheduled to launch in the fall of 2011, will present evidence-based, non-traditional healing approaches as auxiliary practices to those of the medical model of care and identify practice-based recommendations and actions that will advance the medical model of care. This program is made possible through cardiologist and adjunct professor of medicine Vijay R. Sanghvi, MD. To be added to the mailing list for this program, please e-mail magdalena.szafarski@uc.edu.

Hoxworth Needs Donors

Hoxworth Blood Center is calling on all eligible O-negative donors to give blood immediately. The blood center has experienced a decline in donations and an increase in patient needs. Donations can be

made at the Hoxworth Building on the Academic Health Center campus or at one of Hoxworth's eight neighborhood donation centers in Anderson, Blue Ash, Downtown, Fort Mitchell, Fort Thomas, Mason, Tri-County and Western Hills. In times of shortages, walk-ins are always welcome or you can schedule an appointment by calling (513) 451-0910 or visiting hoxworth.org.

AHC Public Relations Office Relocates to University Hall

The UC Academic Health Center Public Relations and Communications Office has relocated to the sixth floor of University Hall, 51 Goodman Drive. If you need to reach a member of the communications staff, we are located in Suite 620, ML 0550. If you have questions, please call (513) 558-4553. For a full list of the offices' members and areas of coverage, visit healthnews.uc.edu/pr.

Save the Date for MLK Program

Mark your calendars for the 39th Annual Dr. Martin Luther King Jr. Memorial Celebration on Friday, Jan. 14, 2011. Look for event details coming soon. ■

Geriatricians Receive Awards to Improve Elder Care

Recipients Seek to Strengthen Interdisciplinary Approach in Physician Training and Delivery of Clinical Care to Older Population

By Katie Pence
katie.pence@uc.edu

The shortage of geriatric specialists is a trend that has been widely publicized in recent years.

But at the University of Cincinnati, two young geriatricians are doing what they can to not only improve the field for future geriatricians and patients alike but also improve the way they do their job in the Tristate.

Recently, Jeffrey Schlaudecker, MD, and Mandi Sehgal, MD, both UC Health geriatricians in the department of family and community medicine, were awarded Geriatric Academic Career Awards from the

Health Resources and Services Administration.

They were two out of only about 70 others in the country to receive this award, given to support career development for academic geriatric specialists who emphasize training in clinical geriatrics.

The grants, created from federal stimulus money, will each total \$374,955 over five years.

"I'm very honored," says Schlaudecker. "We will use this money to develop ways to educate people on best practices in caring for older populations."

In addition, the financial support will allow Schlaudecker and Sehgal to conduct clinical research

surrounding the practices they put into place to improve geriatric care.

Schlaudecker has similar sentiments. "Caring for older adults is such an important job, and even more important is making sure that training is in place to create the best

health care workforce for this demographic—one that emphasizes a geriatric philosophy of care," she says.

"The geriatric field is truly about caring for not only the whole person, but their family as well," Schlaudecker continues. "It's rec-

ognizing that the family is just as crucial to the care of the patient as the health care team.

"This grant will help everyone put on their geriatric thinking cap, if you will, and learn to work together to provide the best care for this population." ■

"This grant will help everyone put on their geriatric thinking cap, if you will, and learn to work together to provide the best care for this population."

JEFFREY SCHLAUDECKER, MD

WHY DID YOU CHOOSE GERIATRICS?

"DURING MY FAMILY MEDICINE RESIDENCY training, there was only a one-month rotation that focused on geriatrics, although we cared for many older adult patients throughout our years of residency. I felt that I needed additional training to develop my 'toolbox' of skills to take care of this vulnerable population. I had amazing mentorship that pushed me in the direction of a geriatrics fellowship, a year-long program, that gave me the tools and knowledge to take care of older adults, and then I was hooked." *Mandi Sehgal, MD*

"I HAVE ALWAYS ENJOYED being around older adults, and I decided to become a geriatrician during my residency in family medicine at UC. I was excited by the challenge of a field of medicine that is still in its relative infancy in understanding. Older adults are an amazingly heterogeneous group: Every 80-year-old is unique in functional status, life experience and in how medicines affect them. In my early interaction with Dr. Gregg Warshaw (UC Geriatrics Division Head), I saw how he was able to teach a diverse group of learners in multiple medical specialties how to improve care for their older patients, and I was hooked!" *Jeffrey Schlaudecker, MD*

Lindell to Retire After 20 Years as Dean

After 20 years as dean of the College of Nursing, and 46 years in the nursing profession, Andrea Lindell, PhD, is retiring, effective Jan. 1, 2011.

"I will deeply miss the incredible energy and enthusiasm of our students. I take comfort, however, in knowing that together we have made significant and lasting contributions in the health of our community," said Lindell, in an announcement Nov. 29.

Lindell was appointed to the deanship in 1990. At that time, the College of Nursing offered a bachelor of science in nursing (BSN) and a master of science in nursing (MSN). Under Lindell's leadership the college added a doctorate in nursing research (PhD), doctorate of nursing practice (DNP), master's specialties with an advanced nurse

practitioner focus, and the accelerated pathway, all of which increased enrollment throughout the years. During this time the college also established satellite programs, the nursing co-op program, international community health experiential learning programs, and distance learning options. While dean, Lindell also led numerous collaborative partnerships within the community regionally and internationally to include the Institute for Nursing Research and Scholarship, established with UC Health's University Hospital (UH) and a Graduate Fellows placement program established with Christ Hospital and UH.

A tireless advocate for the nursing profession, Lindell was recently awarded the Sister Bernadette Armiger Award by the American Association of Colleges of Nursing. The award, one of the national organization's most prestigious, recognizes the advancement of nursing education and practice. ■



Lindell

Schlaudecker's Award...

Will allow him to complete training for a master's of education degree while focusing on developing and implementing curriculum for geriatric students that will center on the interprofessional care of hospitalized elders.



Schlaudecker

"We need to include all specialists in the care of the patients, from nurses to speech therapists to pharmacists," he says. "We teach students to be their own island when it comes to care, but what we need to be teaching them is the value of the other members of the health care team and how interaction with them benefits patient care."

As part of this plan, Schlaudecker will assemble a team to engage patients at Christ Hospital, where he sees patients, in bedside rounds and will focus on how interprofessional communication with patients and families impacts the doctor-patient relationship, improving patient care through their increased understanding of treatment and helping facilitate successful self-management among older adults and their caregivers. He will also complete research evaluating the outcomes. ■

Sehgal's Award...

Will allow her to complete more training toward becoming a master educator through classes at UC's Center for Education Teaching and Learning and the master's of education program offered collaboratively through UC and Cincinnati Children's Hospital Medical Center. She will develop, implement and evaluate an interprofessional block rotation for primary care residents and develop a new interdisciplinary team care communication curriculum for chief residents at UC Health University Hospital.



Sehgal

Additionally, Sehgal will become a member of UC's Institute for Health Care Improvement's Open School Chapter to bring a focus of quality improvement to her geriatrics curricula.

"It's important to expose students and residents to this interdisciplinary mindset as soon as possible," she says. "It's the first step in providing truly integrated, tailored care. When everyone is on the same page, care can be administered more quickly and with fewer problems."

"By developing these curricula we are giving our learners experiences and the right skills up front." ■

Researchers Present Findings at AHA Session

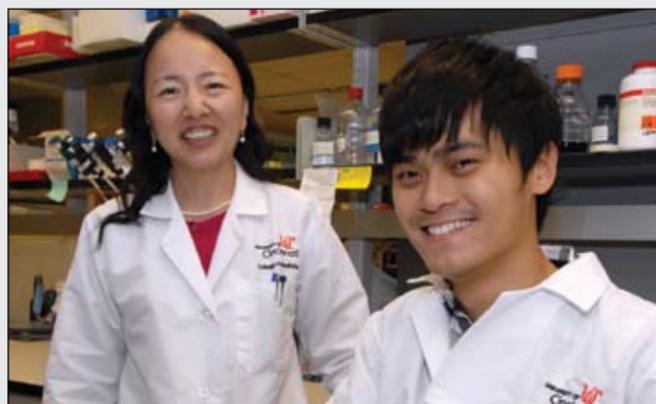
By Katie Pence
katie.pence@uc.edu

A number of UC researchers presented novel findings at the American Heart Association's Scientific Sessions 2010 held in Chicago Nov. 13-17.

Researchers in the departments of pharmacology and cell biophysics and pathology and laboratory medicine as well as the division of cardiovascular diseases explained their heart-related research to peers throughout the country who were in attendance. Their findings revealed that:

- **A stem cell-infused patch** combined with overexpression of a specific cell instruction molecule promoted cell migration to damaged cardiac tissue following heart attack, resulting in improved heart function. (*Wang*)
- **Fat around the outside of arteries** may lead to the development of cardiovascular disease and could be linked to its onset in individuals with diabetes. (*Manka*)
- **A newly discovered protein** could be cardioprotective during heart attack, potentially leading to more targeted treatments for patients at risk. (*Zhao and Lam*)
- **A new cellular pathway** could help in developing therapeutic treatments for obesity-related disorders, like diabetes and heart disease. (*Chatterjee*)
- **A genetic target** for heart disease could lead to therapies preventing the development of the nation's No. 1 killer in its initial stages. (*WenFeng Cai, PhD, not pictured*)

To find out more about these discoveries and ways researchers plan to build on this research and develop viable therapies, visit healthnews.uc.edu. ■



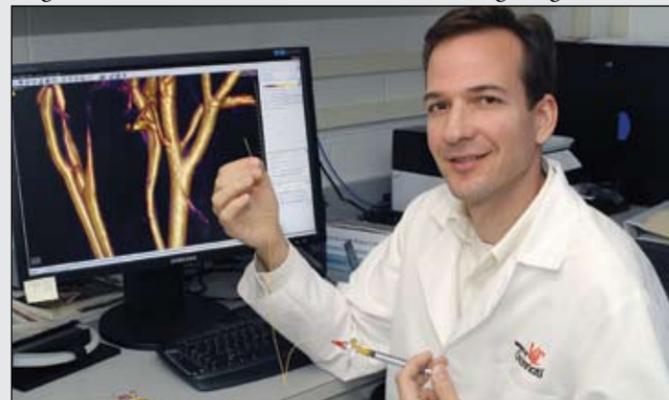
Wen Zhao, PhD, and Chi Keung Lam, a PhD student



Yi-Gang Wang, PhD



Tapan Chatterjee, PhD



David Manka, PhD

All photos: Academic Health Center Communication Services/D. Collins

UC Surgeons Reconstruct Jaw

'Delicate' Procedure Gives Stage-4 Cancer Patient the Best Possible Outcome



James Joseph (JJ) Lail, pictured with his wife, Amanda, and their foster children (left to right) Marcos, Gabriel, Mario, Homero and Pablo.

By Amanda Harper
amanda.harper@uc.edu

In 2008, James Joseph (JJ) Lail took a leap of faith aimed at improving the lives of others. He left the security of his suburban teaching job in Loveland, Ohio, and moved with his wife, Amanda, and two young children to the city of Monterrey in northeastern Mexico.

That life-changing moment instantly expanded his family from four to 12. Through the faith-based nonprofit organization Back 2 Back Ministries, the Lails became foster parents to eight orphaned teenage boys.

Their mission is to help orphaned and impoverished children overcome their life circumstances and break free from a cycle of poverty.

"Mandatory education is done after ninth grade in Mexico, so a lot of kids we were serving in the orphanages were leaving to go off on their own at 15 or 16, completely unprepared to take care of themselves as adults," explains Lail. "Our foster home is one of six that were created to give these kids an opportunity to continue their education in a safe, supported environment while also growing spiritually and mentally to help heal from past experiences."

Shortly after embracing this gratifying new life purpose, Lail began experiencing pain and swelling in his mouth. Routine tests with his dentist ruled out common

problems like cavities and he was referred to a periodontist, where he had more testing that led to taking antibiotics to knock out any underlying infection.

"Unfortunately, it became clear after about 18 months of tests and treatment without relief that something else was going on, and I was referred to an oral surgeon for a biopsy," recalls Lail.



Patil



Casper

That is when he experienced another life-changing moment: A stage-4 squamous cell carcinoma diagnosis. The cancer was so advanced it had invaded his right jaw and affected a portion of his face and inner lip.

"The next day, I was on a plane back to Ohio to seek a second opinion and find an oncologist." Through two friends of the family—an oral surgeon and an ENT doctor—I was referred to Dr. Casper and Dr. Patil at UC."

Yash Patil, MD, and Keith Casper, MD, are the only head and neck surgeons in the Greater Cincinnati area fellowship trained in microvascular reconstructive surgery.

Patil and Casper removed the cancerous tissue and bone, and

then performed a microvascular free tissue transfer to reconstruct the portions of Lail's face and jaw affected by the tumor. The technique involves using existing skin, tissue and bone from another part of the body—in Lail's case, the lower leg—to build a new jaw and restore function.

"This is very delicate surgery... We use a suture finer than a human hair."

YASH PATIL, MD

"This is very delicate surgery. It involves using a microscope to meticulously connect small blood vessels to give the tissue graft a blood supply that will allow it to survive. We use a suture finer than a human hair," explains Patil. "The procedure generally lasts six to eight hours. By taking time to properly reconstruct our head and neck cancer patient, they have the best possible cosmetic result and function."

Lail finished radiation therapy in late October and returned to Mexico in mid-November.

"I'm looking forward to celebrating my daughter's seventh birthday, getting back to my family and putting cancer behind me," he says with a smile.

Alumna Works as Ambassador for Clinical Lab Science Career

By Katy Cosse
kathryn.cosse@uc.edu

Julie Gutana credits early educators for guiding her toward a career as a medical laboratory scientist. Now, she's working to help other students realize their potential in the field.

A 2005 graduate of the College of Allied Health Sciences' Clinical Laboratory Science program, Gutana is one of several UC alumni selected as an American Society for Clinical Pathology (ASCP) Ambassador in recent years.

The 21 ambassadors were selected from applicants across the country. In their role, they are tasked with talking to local students about the opportunities in laboratory science.

"There's a lack of visibility for medical laboratory scientists," says Gutana. "Because we're behind the scenes in hospitals, patients don't know who we are. They don't know there's a whole team of people involved when they get blood drawn."

To apply for the ambassador position, Gutana created a short video explaining her passion for laboratory science. "Of Machines and Microscopes" details her journey from a hospital volunteer to her first job as a medical technologist at UC Health University Hospital, "where every shift was an adventure."

Gutana now works at Saint Joseph Hospital in Lexington, Ky. But after realizing few outside the lab understood the depth of commitment and training it required, she said she felt "a sense of urgency" to apply for the ASCP ambassador program.

"I felt like I wanted to give back to this profession," says Gutana. "For the younger students, they associate labs with research. They don't realize there's an entire clinical side to it—we go through a lot of training to provide patients the best quality results so they can receive the best possible care."

"Ours is an unsung profession, if you will," says Linda Graeter, PhD, director of the college's Clinical Laboratory Science Program. "There are national shortages around the country for laboratory professionals and there's been a concerted effort by our national organizations to promote awareness and get more people excited about clinical laboratory careers."

UC'S PROGRAM HAS HAD SEVERAL OTHER STUDENTS SELECTED

for the ASCP program, including Shareen Lee, '07, in the 2010-11 class and

Melanie LeBlanc, 2007, in the 2009-10 class.

"It's a competitive process and we've had students from both our on-campus and distance learning programs selected," says Graeter. "We try to spread the word about these opportunities—it's part of our goal to instill life-long learning and professional dedication in our students."



Graeter

Watch Gutana's video application at healthnews.uc.edu/findings.

WEB EXCLUSIVE

Think you know what this research MRI shows? It is potentially a first-of-its-kind image.

Learn about the identity of this image and the partnership FETCH~LAB at the College of Allied Health Sciences has with an Atlanta institution by visiting healthnews.uc.edu/findings.



Performer Enjoys the 'Shared Experience' of IvaDean Scholarship Benefit Show



Carl Fichtenbaum, MD, professor in the division of infectious diseases, also has another title: Singer/songwriter. A performer since his late teens, Fichtenbaum has scaled back on live performances of late, but he made sure to mark his calendar for the IvaDean Scholarship Benefit Concert, which was held on Friday, Dec. 3.

Why is this concert important to you? "The IvaDean Scholarship is one of the most worthy at the medical school. She has been a fixture here for many years, helping so many students find their way. The transition to medical school can be difficult and every school needs a nurturing force that provides food for the soul. It is an honor to help this worthy effort in any small way.

"Music is a wonderful way that human beings express their hopes, fears and desires. When we do it together, we share a common bond. I love being a part of this concert because it allows us a shared experience embodying the essence of IvaDean." More from Fichtenbaum at healthnews.uc.edu/findings.

About the IvaDean Scholarship Fund...

The IvaDean Scholarship Fund was initiated by the class of 2003 to honor IvaDean Lair's 40-plus years of service to the college and provide relief to students burdened by escalating medical school tuition.

Since then, individual donors—and student-led fundraisers, such as this concert—have raised approximately \$1.5 million, which is kept in an endowment at the UC Foundation.

From the 2004-05 academic year

through the 2010-11 academic year, 59 medical students have received \$304,500 in scholarships. In keeping with IvaDean's preference, the scholarships are awarded based on financial need.