Curriculum Taskforce on Track to Apply Changes in 2011

By Angela Koenig
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This time last year, the 11-member Curriculum Analysis and Revision 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 schematic for the revised 2011-12 College of Medicine curriculum in place by October 2010. 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 grassroots 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
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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 pusypassor.”

This pusypassor’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. “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 Athersys-Busch, TJM 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 process 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 at the possibilities of 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.”

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.
Environmental Health Researcher to Study Effect of ‘E-Waste’ on Human Health

By Amanda Harper
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Imagine 20 to 50 million tons of cell phones, computers, televisions, printers and other electronic devices piling up in your back yard. That’s how much electronic waste (e-waste) is produced across the world annually, much of it entering the landfill 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 un-studied. It’s complex mixture of metals—lead, mercury, cadmium, chromium and polychlorinated di-phenyl ethers (PBDEs)—that concerns scientists. Many of these substances have adverse health effects in humans.

Aimin Chen, MD, PhD, of the University of Cincinnati 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 e-waste exposure and PBDEs impact human health. Chen says universal regulations on the disposal of e-waste do not exist. In the U.S., there are no legally enforceable federal policies regarding 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 exposure.”

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 awarded 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 56 countries on five continents. For more information, visit med.uc.edu/draino 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 the department of transplantation since coming to UC in 1999. A basic researcher in the field of transplantation, he has led the other will represent a distinction by major significant contributions on the basis of outstanding achievements in medicine, surgery, or research.

To suggest a basic scientist to be featured, please e-mail uchealthnews@uc.edu.

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 that will advance 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 and actions that will advance the medical model of care. This program is made possible through contributions from cardiologist and adjunct professor of medicine Vijay R. Sanghvi, MD. To be added to the mailing list for this program, please e-mail uchealthnews@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 visit hoxworth.org.
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

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 discovering 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 Manjula 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,” said 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 recognizes 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.”

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.

“T here are issues that are insurmountable and you can’t do anything to change them. You just do the best you can,” said Lindell.

One of the best things about being dean, she says, was the opportunity to work with the many talented faculty members in the college.

“I am the sum of the parts that I was able to assemble,” she said, “and I am very proud of the nurse leaders we have produced over the years.”

Lindell will officially leave Dec. 31 when the new dean takes office. She said she is looking forward to traveling and spending more time with her family in the future.

Researchers Present Findings at AHA Session

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 disease 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 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.

BY KATIE PENCE
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 the 2010-11 academic year, through the 2010-11 academic year, 59 medical students have received $304,000 in scholarships. In keeping with IvaDean’s preference, the awards are selected, “says Graeter. “We think it’s an adventure. “Learning about the identity of this image and the partnership is an opportunity—it’s part of our goal to instill life-long learning and professional dedication in our students.”

Learn about the identity of this image and the partnership

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

By Amanda Harper

In 2008, James Joseph (J.J.) 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 unprepared to take care of them. Whenphanages were leaving to go off on their own, they had the best possible cosmetic and function. “Lail finished radiation therapy in late October and returned to Mexico in mid-November.

“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 patients, 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.

Patil

By Amanda Harper

UC Surgeons Reconstruct Jaw

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

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