

What's Inside Progress Notes - 1
ECU Ranks in Top 10 of Primary Care
Medical Schools - 1
ECU to Build Dental Center in Lillington - 2
Kidney Specialist Joins ECU - 2

BioEngineered Veins Could Help Patients
Needing Bypass Surgery, Dialysis - 3
Easter Word Search - 4
New Provider - 4

Progress Notes

How often are our providers and clinical staff influenced by materials or representatives from commercial industry? How often are representatives of these companies in our midst? Yes, I am talking about “drug reps” and other professionals who come and go in many of our clinics on a regular basis. They offer helpful information so we can provide the best possible care for our patients, and often leave behind pens or notepads with their message emblazoned on them, or provide food and drink for staff or at teaching conferences.

There is increasing scrutiny of the relationship between industry reps and clinical professionals across our nation. Senator Grassley (Iowa) has publicly criticized some major academic medical centers for being too closely aligned with, or open to, industry reps. Many medical schools across the nation have overhauled their policies dealing with the manner in which their physicians, staff, and learners interact with industry reps.

At the Brody School of Medicine, we are working on a policy that will greatly clarify the ways in which our providers, clinical staff, and learners should interact with industry reps. Some might think it is easy to just ban these reps from our midst, so we can maintain an untainted academic environment. But it is probably not that easy.

Many providers look to pharma reps as one important source for the latest information about new medicines, although not the only important source. Some departments allow a pharma rep to talk about a new medication for a few minutes, followed immediately by a faculty member providing sort of a counterpoint perspective. Many surgeons rely on a device manufacturer rep to be present in the OR when using a new device to make sure the complexities and nuances of the device can help the surgeon provide the best care to the patient.

Some leaders at the School feel we should not provide drug samples to any patient unless we will be able to maintain that free supply to that patient as long as the person needs the medication. They cite lawsuits filed against providers who used samples to start a patient on a new med and then later required the patient to purchase the medication on their own. Other providers here see samples as a vital resource in our quest to provide the best possible care for our many indigent patients.

So the issues and answers are not as clear as they might seem. We are working with a diverse array of leaders from across the School to develop a policy that will help us benefit from interactions with industry reps when we can do so with minimal bias, with utmost professionalism, with the intent of providing a sound educational experience, and with our patients' interests in mind.

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ECU Ranks in top 10 of Primary Care Medical Schools

The Brody School of Medicine at East Carolina University ranks among the top medical schools in the country that emphasize primary care, according to the annual listing of the top graduate schools by U.S. News & World Report magazine.

ECU is 10th overall among primary care schools this year. In the rural medicine subcategory, the school ranks seventh. ECU also sent the seventh-highest percentage of its graduates, 54.3 percent, into primary care residencies between 2008 and 2010. U.S. News defines primary care as family medicine, pediatrics and internal medicine.

"The even better news is that the majority of our physicians still practice right here in North Carolina," said Dr. Paul Cunningham, dean of the medical school. "This is the very best return on the state's investment that I can imagine."

Also at ECU, the rehabilitation counseling graduate program in the College of Allied Health Sciences was ranked the 13th among such programs.

The U.S. News rankings of U.S. professional and graduate schools will be available on newsstands Tuesday, April 5. In medicine, the magazine considered the 126 accredited U.S. medical schools and 20 schools of osteopathic medicine.

This year, the University of Washington again was rated the top primary care school. Harvard University ranked first among medical schools that emphasize research.

Rankings for primary care schools are based on a weighted average of seven indicators, four of them common for research- and primary care-focused schools. The primary care model also considered the number of graduates entering primary care residencies.

ECU to Build Dental Center in Lillington



Dr. Jim Hupp, dean of the ECU School of Dental Medicine, speaks Wednesday, Jan. 19, 2011, in Lillington. Photos by Doug Boyd

Lillington has been selected to be the site of an educational and patient-care facility of the East Carolina University School of Dental Medicine.

ECU announced today at the Harnett County Government Complex that it will build one of its community service learning centers beside the new First Choice Community Health Center off U.S. 401. There, dental students and residents will train and, together with ECU faculty members, provide care to local residents.

"This is going to be a very good site, a good collaboration with First Choice Community Health Center," said Dr. Gregory Chadwick, associate dean for planning and extramural affairs at the dental school. The two facilities "will really have an impact on primary health care in Harnett County."

Lillington is the fourth site to be named for what will eventually be 10 such centers across the state and the first in central North Carolina. The other sites identified so far are Ahoskie and Elizabeth City in eastern North Carolina and Sylva in the western part of the state.

The 7,700-square-foot center will be a fully functioning general dentistry office with 16 treatment rooms, X-ray equipment, educational space and more. The state will own the land, and construction could begin this year if all goes well, Chadwick said.

Sheila Simmons, executive director of First Choice, said the partnership with ECU will be important to her community. "The future consists of not just 'make a difference' but 'be the difference,'" she said, "and this collaboration will allow us to be the difference."

Full-time dental school faculty members will staff the center, along with dental hygienists and other staff members, and fourth-year dental students and residents will train at the center. Chadwick has described the centers as similar to "moving the fourth floor of the dental school -- the clinical training -- off campus to rural areas of our state where dental services are needed."

Retired Lillington dentist Dr. Catherine Evans praised the plan for the education it will provide students and care it will provide for residents who might not get it any other way. "It will give access to dental care to people who cannot afford it on large basis, and I'm talking about basic care," she said.

The school will admit its first 50 students, all North Carolina residents, in August, with plans to admit 50 each year.

North Carolina is below the national average in the ratio of dentists to population, and that ratio has declined recently as the population has increased faster than the supply of practitioners. Harnett County has one dentist for every 10,000 people, Simmons said, less than the state average of about 4 dentists for every 10,000 people.



Dr. Gregory Chadwick, associate dean of the ECU School of Dental Medicine, talks with Dianne Johnson, a Lillington commissioner, Wednesday, Jan. 19, 2011, at the dental school announcement.

Kidney Specialist Joins ECU



Dr. Wafa Badwan

A kidney specialist has joined the Brody School of Medicine at East Carolina University and its group medical practice, ECU Physicians.

Dr. Wafa Badwan has joined ECU as a clinical assistant professor. Born in Raleigh, she has a bachelor's and medical degree from ECU and completed residency training and a fellowship in nephrology at ECU. She is board-certified in internal medicine and nephrology. Her clinical and research interests are critical care nephrology and renal transplant.

Badwan sees patients at the ECU Nephrology and Hypertension Clinic at 2355 W. Arlington Blvd. Appointments are available by calling 744-2545.

Bioengineered Veins Could Help Patients Needing Bypass Surgery, Dialysis



Dr. Alan P. Kypson, a cardiothoracic surgeon, associate professor at the Brody School of Medicine

Thanks to research involving experts from East Carolina University, other universities and a Morrisville-based biotechnology firm, the day when a surgeon can pull a new human vein off the shelf for use in life-saving vascular surgeries is now one step closer to reality.

New research published in the current issue of the journal *Science Translational Medicine* demonstrates the capability of tissue-engineered vascular grafts that are immediately available at the time of surgery and are less likely to become infected or obstructed. The bioengineering method of producing veins shows promise in large- and small-diameter applications, such as for coronary artery bypass surgery and for vascular access in hemodialysis.

Humacyte, a Morrisville biotechnology company, worked with university researchers to develop the veins.

"This new type of bioengineered vein allows them to be easily stored in hospitals so they are readily available to surgeons at the time of need," said Dr. Alan P. Kypson, a cardiothoracic surgeon, associate professor at the Brody School of Medicine at ECU and an author of the paper. "Currently, grafting using the patient's own veins remains the gold standard. But, harvesting a vein from the patient's leg can lead to complications, and for patients who don't have suitable veins, the bioengineered veins could serve as an important new way to provide a coronary bypass."

The American Heart Association Update on Heart Disease Statistics reports that in 2007, in the United States, surgeons performed more than 400,000 coronary bypass procedures. Patients requiring bypass surgery may not have suitable veins or arteries available and are not candidates for synthetic grafts because of the size needed for grafting.

The bioengineered veins also show promise for patients on kidney hemodialysis. According to the National Kidney Foundation, 320,000 patients are on chronic hemodialysis. Each year, 110,000 new patients develop renal failure requiring dialysis, and the number is growing by 3 percent a year. More than half of dialysis patients lack the healthy veins necessary and must undergo an arteriovenous graft placement to have bloodstream access for hemodialysis.

Most arteriovenous grafts that are placed for hemodialysis access are made of a synthetic material, which suffers from significant drawbacks including a high rate of infection, a propensity for blockages due to clotting and a thickening of blood vessels known as intimal hyperplasia, said Dr. Jeffrey H. Lawson, a surgeon and associate professor at Duke University School of Medicine and an author of the research.

"Due to high complication rates, each AV dialysis graft requires an average of 2.8 interventions over its lifetime just to keep it functioning," Lawson said. "Hence, there is a huge clinical need for a functionally superior, off-the-shelf AV graft that suffers from fewer complications than current materials."

Lawson has served as a consultant for Humacyte and has received research support from the company through Duke.

In this research, scientists generated bioengineered veins in a bioreactor -- a device designed to support a biological environment -- and then stored them up to 12 months in refrigerated conditions. The bioengineered veins, 3 millimeters to 6 millimeters in diameter, demonstrated excellent blood flow and resistance to blockage in large animal models for up to a year.

Scientists from Duke, ECU, Yale University and Humacyte conducted the research, and Humacyte, a leader in regenerative medicine, funded it. Overseeing the research and serving as senior author of the article was Dr. Laura Niklason, founder of Humacyte and professor of anesthesiology and biomedical engineering at Yale. Niklason is an authority in regenerative medicine for arterial engineering and led the team that recently created a functioning rat lung in a laboratory.

Shannon L.M. Dahl, senior director of scientific operations and co-founder of Humacyte, is lead author on the paper. "Not only are bioengineered veins available at the time of patient need, but the ability to generate a significant number of grafts from a cell bank will allow for a reduction in the final production costs, as compared to other regenerative medicine strategies," Dahl said. "While there is still considerable research to be done before a product is available for widespread use, we are highly encouraged by the results outlined in this paper and eager to move forward with additional study."

Humacyte (<http://www.humacyte.com>), a privately held company, is primarily focused on developing products for vascular disease and for dermal filling and soft tissue repair. The company uses its innovative and proprietary platform technology to engineer human extracellular matrix-based tissues that can be shaped into tubes, sheets or particulate conformations with properties similar to native tissues.

These can then be used in many specific applications, with the potential to significantly improve treatment outcomes for a variety of patients, including those with diabetes and on hemodialysis. The company's proprietary technologies are designed to result in off-the-shelf products that can be used in any patient.

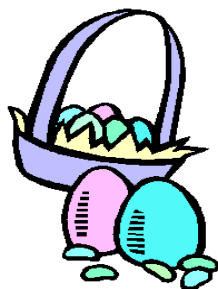
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