New culprits emerge for diabetics

BY SARAH AVERY, Staff Writer
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As the prevalence of diabetes has doubled in North Carolina and the nation over the past decade, doctors are only now beginning to unravel the complex series of cellular events that cause some people to develop the chronic disease, while others remain healthy.

And while a cure is elusive as ever, new findings among area researchers are creating additional targets for drug therapies - raising hope for the estimated 550,000 people in North Carolina who have diabetes.

The disease, once considered fairly straightforward, results when the body does not produce or effectively use insulin, a hormone produced in the pancreas that helps cells absorb sugars for energy. People who are overweight or obese have a greater risk of developing diabetes, because too much food and too little physical activity can burn out the body’s ability to manage insulin.

"It's almost like it's a social problem as much as a disease," said Dr. John Buse, director of the Diabetes Care Unit at the University of North Carolina at Chapel Hill.

"Our society has evolved quickly, and the genetic background that enabled people to withstand episodes of starvation now has turned against us."

But not everybody who is overweight develops diabetes, and not every person with diabetes is overweight.

That's where the disease gets complicated.

Much of the research is focusing on the metabolic processes that involve food and nutrients - often with surprising results.

New suspects

In a paper published Tuesday, Duke University researchers describe a new finding that indicates diabetes could be affected by protein - not the usual suspects of sugary carbohydrates. The Duke team found that obese people metabolize protein differently than lean people, particularly when it's part of a high-fat diet.

When people eat too much protein and fat - think double cheeseburger - the metabolic byproducts can't be fully absorbed, and they flood the bloodstream. Among those byproducts is an enzyme that affects insulin sensitivity. As a result, a diet heavy on Big Macs creates a whole new way for the body to become insulin resistant.

"Correctly, protein is viewed as a good nutrient, and it certainly is in people who exercise and eat in moderation," said Christopher Newgard, director of the Sarah W. Stedman Nutrition and Metabolism Center at Duke and the study's lead author. "That's not what we're talking about here. We're talking about a dietary pattern that is typical in the U.S. and western society, where 65 percent of people are overweight. And they get that way by ingesting too
many calories and not exercising."

Another curious discovery of metabolism has scientists at East Carolina University pursuing a molecule that re-creates the effects of gastric bypass surgery. Doctors at the university who helped pioneer the weight loss surgery first reported that many patients were cured of their diabetes within days of having a gastric bypass - before they even lost weight.

Dr. Walter Pories, who founded ECU's bariatric surgery unit, said the procedure reroutes food around a section of the gut and, in the process, likely blocks a signal to the pancreas that triggers insulin production. Because many people with diabetes produce too much insulin, and the body becomes resistant to it, this interrupted signal appears to cure diabetes in more than half of patients.

"We're trying to figure out what are the signals coming from the gut," Pories said. "Once you identify the abnormal signal, then you could make a molecule to stop the signals. That molecule would then be the treatment for diabetes. Sweet, huh?"

A break in the case

But it's not that easy to pinpoint, and there remains the question of why diabetes persists in up to 40 percent of patients after weight-loss surgery.

"It is complex," Pories said. "But there has been a major turnaround. Here's a disease that has doubled in prevalence in the last 10 years, not just in the U.S. but around the world. But it is no longer hopeless."

Buse, at UNC, agreed. He said 20 years ago patients frequently suffered blindness, amputations and kidney failure. Now, he said, he rarely sees such complications.

"It's like having a loaded handgun at home: If it's not dealt with appropriately, it can kill," Buse said. "But the truth of the matter is, just like many, many people are able to own weapons and nothing happens ... the vast majority of people can live a full lifespan without disabling complications."

It's all about lifestyle

Keith Burgess of Raleigh is working to be among those living a full life. When he was diagnosed with diabetes in 1997 at the age of 29, he went into denial. But shortly after moving to Raleigh a year ago, Burgess joined a diabetes clinic called wellLIFE. There, he learned how to grocery shop, exercise and properly monitor his blood work. He dropped about 50 pounds, and now has his diabetes well under control.

The company's founder, Dwan Kelsey, said the emphasis is to promote an entirely different lifestyle - a business concept that is as new as some of the research.

"The people I see don't even know how to shop at the Food Lion," she says. "I tell them you can't buy this and this and this, and they're like, 'What? What is there left to eat?' And I tell them, you have a whole grocery store left. I've just named five items. You have to teach people how to function with this disease on a daily basis."

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Former U.S. Ambassador: Hold government accountable

By Josh Humphries
The Daily Reflector

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It is the responsibility of every American citizen to hold the government accountable for its actions, former U.S. Ambassador Joseph Wilson said.

Wilson spoke to about 150 people Tuesday at East Carolina University for the College of Human Ecology's Carolyn Freeze Baynes Memorial Lecture in Social Justice Series.

Wilson is the husband of Valerie Plame, who he says was outed as a covert CIA agent by high-level officials in the George W. Bush administration in retaliation for Wilson's public report that Iraq was not seeking to purchase uranium from the African country of Niger.

Wilson said he reported to Washington that there was no truth to the uranium purchase claims.

Yet the president asserted in his 2003 State of the Union address in a buildup to the war in Iraq that "Saddam Hussein recently sought significant quantities of uranium from Africa."

Wilson said that officials in the CIA, the State Department and other foreign intelligence agencies knew that the claim was false, yet the statement ended up in the President's speech.

Wilson wrote an article in The New York Times a few weeks later explaining what he had found in Africa.

Following the article's publication, Wilson's wife was revealed to be a covert CIA agent by officials in the State Department and the office of the vice president.

Revealing Valerie Plame's identity ultimately resulted in the conviction of Vice President Dick Cheney's chief of staff, Lewis "Scooter" Libby, on four counts of perjury, lying to federal investigators and obstruction of justice.

"You have a responsibility, and you can and you must stand up in your own governance," Wilson said.

"You will survive, and more importantly, the republic will be stronger."

Wilson's wife was put in immediate danger when journalist Robert Novak revealed her identity in a column, he said.

But that turmoil was nothing compared to what has happened to American soldiers who were sent to fight in Iraq under false pretenses, Wilson said.

"What is your responsibility as a citizen when you realize that your government has misled the American people?" Wilson asked.

His report from Africa, where he has worked on and off as a diplomat for 30 years, also was backed up by French intelligence and the United States Marines, he said.

"I have peered into the abyss of tyranny, and what we have is too precious to squander," Wilson said.

"So I didn't. I wrote my article, but only after having gone through the appropriate channels and being ignored," he said.
Wilson asked audience members to raise their hands if they did not know his wife's name.

Then he asked the audience who put the sentence in the president's speech stating that Iraq was purchasing uranium for Africa.

No hands were raised for either question.

"Isn't there something wrong that no one knows the name of who put the words in the address but everyone knows my wife's name?" he asked.

He said it was unprecedented, even in Washington, to reveal the identity of a government agent as a political attack on a 20-year diplomatic veteran who served under both political parties.

During a question-and-answer session that followed, Wilson was asked if Congress should investigate the Bush administration officials.

"If we don't investigate this ourselves, we are not being true to the Constitution," he said.

"We as a country cannot hold our heads up until we can find out if war crimes were committed."

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Driven by love for cause

BY RUTH SHEEHAN, Staff Writer

Comment on this story

At a time when legislators are wielding budget machetes, not fine surgical scalpels, one project -- one grand idea -- is safer than most.

The soon-to-open N.C. Cancer Hospital at UNC-Chapel Hill has found an advocate in Senate President Pro Tem Marc Basnight.

The senator, arguably the most powerful person in North Carolina politics, became passionate about cancer care and research the way most of us do. It touched his heart.

Basnight lost his wife of 39 years, his sweetie since the 10th grade, to a rare form of cancer two years ago.

Sandy Basnight had battled myelofibrosis, a bone marrow disease, and leukemia, a blood cancer, for 51/2 years. For the first two years, the Basnights told very few people outside the immediate family -- Sandy’s wish.

As her condition worsened, they traveled to Texas, and Washington state, looking for miracles. They also spent a lot of time at UNC’s Gravely Clinical Cancer Center -- a former tuberculosis sanitarium built in 1952.

It was there, at "The People’s Hospital," that Basnight's eyes were opened.

"You hear about people with cancer over the years, you pray for them every Sunday at church," Basnight said. "But at the hospital, in the wards, they're all there. Every color, age
group, income, every size and shape."

Holding his wife's hand through all of her treatments, he had plenty of time to ponder the decrepit structure.

"I saw little children getting their chemotherapy drips in the hallways," he said. It began to chafe that an internationally recognized research hospital should be operating its clinical cancer center out of such a shoddy, ill-equipped building. The whole cancer complex, in fact, is a hodgepodge.

Basnight started talking with doctors such as Shelton Earp, director of UNC's Lineberger Cancer Center. Earp notes that of the 1.5 million people diagnosed with cancer every year, half a million die. "That's unacceptable," Earp said.

The doctors persuaded Basnight and, eventually, other lawmakers, that creating a center for cancer research and treatment at UNC Hospitals would pay huge dividends.

"There was not one paid lobbyist in the bunch," Basnight said. "It was just the doctors that you saw -- and a lot of pain and suffering."

The N.C. Cancer Center will triple the space for adult patients and double the space for kids. It will boast all sorts of newfangled research equipment and lab space. A recurring fund of $50 million will provide seed money for federal grants and help UNC attract and retain the best researchers. Not to mention a few outreach programs, the first of which will be in -- surprise -- Basnight's home county of Dare.

So far, the House and Senate and Gov. Beverly Perdue have protected these funds. No easy trick, even in flush times.

Basnight would love to see the money result in a Nobel Prize for UNC's work on cancer someday. But improved care for the average North Carolinian will be reward enough, he said. "I hope someday no other North Carolinian will have to get on a plane to seek cancer treatment in another state."

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