A visit from Dr. Francis Collins, director of the National Institutes of Health, gave researchers at the University of Mississippi Medical Center a chance to show how they use tens of millions in yearly grant funding from his agency to help understand diseases, train students and improve human health.

It gave Collins a chance to promote biomedical research as an economic backbone and explain funding shortages in recent years.

NIH grants support hundreds of jobs at the Medical Center including lab techs, graduate students, postdoctoral fellows, junior scientists and seasoned, senior investigators.

CONTINUED ON PAGE 7 →
It’s that time again. Time to choose your favorite candidate for the national election and time to choose your favorite charities for the annual UMMCares campaign.

Yes, the day before the election the Medical Center will once again kick off its campaign for the community. A field of 13 “candidates” – unchanged from last year – has been assembled for your consideration.

This will be the fourth year of the campaign in its current format – focused entirely on community service organizations that in some way meet the needs of our citizens and make the Metro area a better place to live. A spring campaign raises support for the many worthy programs at the Medical Center.

Leading the UMMCares ticket this year is committee chair Mary Mixon, assistant administrator of University Hospitals and someone who’s well-known for her commitment to serve others. Mixon has worked at UMMC for 33 years.

“The UMMCares Campaign gives each of us an opportunity to support our friends, neighbors and our community, especially those struggling with illness or lack of basic needs,” Mixon said. “UMMC health-care providers, teachers and researchers together can make a difference in the lives of so many through our combined contributions. Please come together November 5th to November 16th and make that pledge to support our local agencies who help those in need.”

In this election, the real winners are the people who are served by the agencies. Gail Sweat, the executive director of the Mississippi Kidney Foundation, said every little bit helps get the job done for her clients.

“The funds that we receive from the UMMC employees allow us to help dialysis patients with emergency needs, as well as provide free screenings for early detection of kidney disease,” Sweat said.

Groups slated to receive funds include the United Way, the American Heart Association, the American Cancer Society, the Mississippi Lung Association, the March of Dimes, the American Red Cross, Stewpot Community Services, the Mississippi Kidney Foundation, Boys and Girls Clubs of Central Mississippi, the Central Mississippi Sickle Cell Foundation, the Diabetes Foundation of Mississippi, the Magnolia Speech School and Metropolitan YMCAs of Mississippi.

As always, employees may designate the group(s) they support online, taking advantage of payroll deduction.

For more news and information of interest to the Medical Center family, visit Medical Center News online (http://info.umc.edu/)
A Record of Survival

40 years of home dialysis makes Forest woman ‘one of the longest surviving patients in the world’

By Gary Pettus

The story of Martha Patrick’s disease is carved in the landscape of her rust-brown limbs – a ridged, flesh-and-blood geology resembling a bird’s-eye view of the Grand Canyon at sunset.

This is the spoiled “topsoil” of her arms, which Patrick has pierced so many times, it has played out, forcing her to plant the needle in her legs.

The scarring is the price of long-term home hemodialysis using an artificial kidney, which has purchased Patrick’s life for more years, perhaps, than for anyone else.

“Forty – it’s just a number to me,” said Patrick of Forest. “That’s just my life. I don’t think it’s that great.”

That’s not the opinion of Dr. John Bower, 80, a semi-retired nephrologist who has not fully retired, in part, out of his regard for her.

“YOU CAN’T JUST WALK OFF and leave a patient you’ve been seeing for 40 years,” said Bower, professor emeritus at UMMC.

Nor is it the opinion of Dr. Christopher Blagg, emeritus executive director of Northwest Kidney Centers in Seattle.

“Forty years on home hemodialysis is, as far as I know, a record,” said Blagg, a home hemodialysis expert.

The record of survival for anyone with kidney, or renal, failure is 49 years, said Blagg, whose advocacy in the 1970s helped usher in Medicare coverage for dialysis and kidney transplantation.

Patrick, who’s never had a transplant and has survived this long strictly on home hemodialysis “is one of the longest surviving patients in the world,” Blagg said.

She has survived “end-stage renal disease (ESRD):” permanent kidney failure, which must be treated by a transplant or artificial filtering - dialysis.

For Patrick, it started in 1972, with nosebleeds, loss of appetite, insomnia.

“I’d sleep during school, I was so tired,” she said. Born with abnormally small kidneys, she had outgrown them by age 15, like an old pair of shoes.

Her kidneys were working at 10 percent of normal capacity; wastes piled up in her blood, like a biotic landfill.

Untreated, she would have died.

“Martha’s mother said, ‘I want her to live;’ ” Bower recalled.

Dorothy Sanders Patrick learned how to use an artificial kidney machine so Patrick could do home dialysis.

Martha Patrick’s own training served her well after her mother died in the late 1980s, ironically, of kidney cancer.

Later, her sister, Linda Leclerc of Forest, served as Patrick’s “third hand.”

“IT’S THE CONCEPT OF THE DUMB NEIGHBOR,” said Bower, who gives Patrick monthly checkups at the Jackson Medical Mall’s UMMC Outpatient Dialysis Unit.

“We try to make the training so simple, even your dumb neighbor could do it. The key is that patients accept responsibility.”

End Stage Renal Disease (ESRD) Patients
2010 (population affected as of Dec. 31)

MISSISSIPPI
Per million
Center hemodialysis: 5,643
Center self hemodialysis: 0
Home hemodialysis: 79
Continuous ambulatory peritoneal dialysis (CAPD): 187
Continuous cyclic peritoneal dialysis (CCPD): 340
Transplant: 1,594
Unaccounted for by the USRDS: 18
Total: 7,861

Patients alive with ESRD
Per million
1980 (as of Dec. 31): 682
2010 (as of Dec. 31): 7,861

Source: 2012 United States Renal Data System (www.usrds.org/reference.aspx)

Some patients choose peritoneal dialysis, in which a hollow tube is surgically placed in the abdomen; a material called dialysate absorbs toxins before they’re drained from the body. This, too, is a home treatment but wasn’t an option when Patrick’s kidneys failed.

Hemodialysis, her choice, requires a fistula, a surgically created access joining an artery with a vein. Patrick, who has had several fistulas, is among the 1 to 2 percent of dialysis patients who dialyze at home rather than at a center.

Of the more than 400,000 in the country, only about 6,000 do home dialysis, which would cost several thousand dollars yearly without Medicare, Bower said.

“At a dialysis center, you schedule your life around dialysis. Do it at home, and you schedule dialysis around your life.”

During each session, Patrick inserts into her fistula two needles attached to plastic tubes that connect them to the dialyzer, or artificial kidney, supplied by the center.

One needle removes the blood from the body so it can be pumped through, and scrubbed by, the machine. The clean blood returns to the body through the second needle.

Calculating at least two piercings per shift, Patrick has stuck herself some 13,000 times. “If the first stick is a bad one, I stick myself again,” she said.

For the four-a-week, 3 1/2-hour sessions, her bedroom is her dialysis unit. “I get in bed and watch TV at the same time,” she said.

Patrick has turned down transplants, she said. “I didn’t want a big surgery, and I’ve been doing good.”

But because of dialysis’ limitations, she has high blood pressure, hardening of the arteries and metabolic bone disease. She must use a walker.

“The kidney also controls blood pressure and bone-material content in the body,” Bower said. “The artificial kidney can’t.” Medication has to.

“Transplants improve the quality of life,” Bower said, “but you need a donor, and the patient will probably need more than one during a lifetime.”

AFTER YEARS OF DIALYSIS, Brenda Dyson received a kidney from each of her two sisters. “Which is better, a transplant or dialysis? It depends on the individual,” said Dyson, Community Outreach Coordinator for Network 8 in Jackson, which serves kidney patients in Mississippi, Alabama and Tennessee.

“When I first met Martha, I was amazed that someone would look that good and do that well on dialysis. She’s an inspiration to everybody.”

On May 22, Patrick reached the 40-year milestone, a month following her retirement, as part-time library book-shelfer.

“She’s responsible, takes good care of herself, eats right,” said her sister Leclerc, 63. “That’s why she’s done so well all these years.

“I don’t care what she says; anyone who can do what she’s done, that’s impressive.”

October 22, 2012 | CENTERVIEW
By Bruce Coleman

Dr. James D. Hardy, professor and chairman of surgery at the University of Mississippi Medical Center from 1965-87, used the technology of his day to document some of the most important surgeries in UMMC’s history.

The 16 mm films used to record the late-1950s to mid-1960s procedures were edited – literally spliced by hand and glued back together – possibly for use as teaching tools in the classroom. Such care had been taken to produce the films that one could only conclude they were intended as precious gifts for medical education’s posterity.

Conrad Machado remembers the first time she saw the films.

“We started looking at them and noticed that some were in really bad shape,” said Machado, associate professor of academic information services in the Rowland Medical Library. “When we opened the can, it smelled like vinegar, which is a sign of deterioration. Many of the films are over 50 years old and they degrade, much like photographs do.”

Heat, storage and the ravages of time can cause 16 mm film to shrink. The spindles on both edges of Hardy’s films no longer fit the teeth of automated projectors. Mix in the crudity of the materials used to make spliced edits, and the result is all but useless for modern projectors.

“WE HAVE NOTHING TO VIEW the films with, and the splices have deteriorated,” Machado said. “If we don’t preserve them, we will lose many of them.

“This (Hardy’s work) was a landmark in the history of Mississippi and it needs to be preserved, or this material will no longer be here.”

Working with the Mississippi Department of Archives and History, who had the necessary equipment to evaluate two of Hardy’s films, they discovered that Film No. 97, labeled “Transplantation of Organs (Heart Out),” bore further scrutiny.

The film showed clips from two of Hardy’s 1963 landmark surgeries: the first human lung transplantation in history and the transplant of a human kidney into a female patient. The footage, which contains more than 100 splices, includes graphics, X-rays and newspaper clippings, and also shows one of the actual patients in recovery.

Dr. Ralph Didlake, professor of surgery and medicine and director of the UMMC Center for Bioethics, said the film showed “a special connection to this preservation effort.”

As a Hardy-trained surgeon, this film project holds an emotional component. Those of us who passed through the flame of his training program have a special connection to this preservation effort.”

Machado said Film No. 97 is just a representative sample of Hardy’s entire 16 mm collection.

“A lot of them are spliced from other films and some of them don’t have titles or numbers,” she said. “We’re trying to inventory what we have, because if we don’t take steps to restore this material, it will be lost.”

Unfortunately, Film No. 97 does not contain footage from Hardy’s 1964 transplant of a chimpanzee heart into the chest of a dying man – an accomplishment so historic in the annals of medical history that it should exist somewhere among the reels, would undoubtedly be considered the “holy grail” of Hardy’s film collection.

The Mississippi Department of Archives and History’s evaluation of Film No. 97 was so compelling that Machado submitted a description of the film to the Basic Preservation Grants Committee of the National Film Preservation Foundation (NFPF) in San Francisco for its 2012 summer round of basic preservation grants. The estimated cost to restore the film – a full 767 feet – was $5,200.

“It’s an expensive process,” Machado said. “It has to be fully cleaned and then repaired. We would get a digital Betacam copy and a DVD copy.

“The grant is federally subsidized, so one requirement is to share the material with a public audience.”

Which sets up sort of a “Catch-22” situation for the restoration of Hardy’s remaining films. For them to be viewed publicly, the films must meet stringent Health Information Portability and Accountability Act requirements for the protection of any depicted individuals’ health-care records. In essence, the films must be viewed to determine HIPAA compliance before they can be made available to the public. But to safely view the films without damaging them, they first must be restored.

“Until we see them, we won’t know what permissions are needed,” said Machado, whose submission represents the Medical Center’s first application for a NFPF grant.

On Sept. 20, Machado received a letter from the NFPF notifying her that the grant application had been accepted and she would receive the funds to proceed with plans to restore Film No. 97.

She described her response in one word: “gratifying.”

“It’s just exciting to know that we’re taking steps to preserve these films,” she said. “We want this to be a campus effort, to get everyone involved in helping to restore these films and making this material available to the public within HIPAA guidelines.

“We’re just trying to understand exactly what we have (in the collection). Dr. Hardy kept everything; it’s just a matter of identifying the film. It’s really an exciting project.”

“The RML preservation efforts are important both statewide and regionally because the library personnel will develop infrastructure and gain expertise as medical archivists,” Didlake said.

“Clearly, this is another resource UMMC can provide to the community.”

The quest to uncover film of Hardy’s heart transplant, as well as to determine what other jewels may be hidden among the archives, has fueled Machado’s effort to have more – if not all – of Hardy’s films restored one day.

“Hopefully now that we can do this one, we can get funding to restore more,” Machado said. “I think it will be great for Mississippi, and it’s an important part of the institution that needs to be preserved.”

Machado displays a strip of Film No. 97.
By Matt Westerfield

When Casey Stevens and a group of fellow occupational therapy students left for Haiti in August, they took with them three large suitcases stuffed with a hodgepodge of household things, like shelf liner, pipe insulation and leopard print duct tape.

They weren’t exactly sure what they’d use them for, but they found even the most commonplace materials can make a big difference at an orphanage in the Western Hemisphere’s poorest country.

Similarly, Stevens learned that volunteering overseas doesn’t require special skills or a mastery of other languages - just a willingness to help. What began as a personal interest in missionary work sprouted into a grassroots effort organized by 10 second-year OT students in the School of Health Related Professions to spend their only week off for the summer with orphaned and disabled children.

“We HAD ALWAYS WANTED TO DO SOMETHING as a class, like take a trip or something, because I think our class is very unique and tight-knit,” said Stevens.

Through his church and other connections, he learned about a Christian orphanage in Port-au-Prince called New Life Children’s Home, which terms itself a “rescue center” for abandoned, handicapped and orphaned children.

“IT didn’t take special skills or a training course,” he said. “We were just allowed to do so.

Stevens said each was responsible for raising about $1,000 to cover the cost of the plane ticket as well as housing and meals at the orphanage. By the time they’d all booked their tickets, one of their professors, Carol Tubbs, got wind of what they were planning and asked if she could tag along.

“We WERE ALL EXCITED ABOUT THAT,” too, because it gave them more comfort having someone with experience,” Stevens said. “We hadn’t had any extensive field work experiences yet.”

Upon arriving in Haiti Aug. 5, they found a country reeling in poverty, still recovering from a devastating 2010 earthquake that killed up to 300,000 people.

“There are entire cities made of tarps and sticks,” Stevens said. “You couldn’t tell if what you were seeing was the result of the earthquake or just poverty.

“Probably over half of those kids at New Life had something to do with the earthquake.”

In spite of that, the students were amazed by how happy the children at New Life were.

“I was expecting the kids to be depressed and unhappy,” said Omari Pittman. “We served kids that were in the midst of being impoverished, but over the week’s span, we never saw a child without a smile on their face.”

The orphanage was home to more than 100 children, about 20 of whom had physical or mental disabilities and were bound to wheelchairs, Stevens said.

They put the household items they brought to use in modifying the aging wheelchairs. The shelf liner made for handy placemats, keeping plates from sliding around the table.

They got the kids out of their wheelchairs as much as possible, stretching them and working on their positioning and flexibility. They also spent a lot of time feeding the younger children.

The kids savored the attention, Stevens said.

“We put leopard print on a girl’s wheelchair and then everybody wanted leopard print, even the kids who weren’t disabled,” he recalled.

For one child who is deaf and mute, a few of the students created a picture book to hang around his neck. The child quickly learned that pointing to one picture would get him a turn on the swing set.

The students also visited other orphanages around the city with far fewer resources than New Life.

“The whole experience was one I will never forget,” said Kayla Adair. “Despite the economic turmoil that is occurring in Haiti, all the Haitian children were so filled with hope and joy in their lives.

“IT WAS SUCH A BLESSING to be able to spend time with them and serve them.”

Parker Gregory called it the experience of a lifetime and said all of the students hope to return. Courtney Shankle encourages others to go as well.

Rounding out the group of students were Katie Fondren, Kristin Geeslin, Kelsi Knight, Mollie Nelson, Omari Pittman, Kelsi Knight and Carol Tubbs.

New Life is supported by World Harvest Missions.

“At the beginning of the summer when I first started to think about this, I just mentioned it to my classmates wondering if they’d be interested,” Stevens said. “I thought we might have four of five people go. But we ended up with 10 people, which was great.”

Stevens said the trip reaffirmed for him how important every life is and how the smallest effort can make a big difference.

“It doesn’t take special skills or a training course,” he said. “We were just a group of 23-year-olds willing to do something with a suitcase full of random household items.”
CONTINUOUS FROM FRONT PAGE

Last fiscal year, UMMC received $37.4 million in NIH funding, well over half of the $60.2 million total sponsored-project funding UMMC received. That’s up from FY 2011, when the Medical Center received $28 million from the NIH of a total $85 million in sponsored projects.

Despite the Medical Center’s increased NIH support, ask any grant-dependent scientist and he or she will say it’s been more difficult to get NIH funding over the past several years. Collins said the NIH on average funded about one-third of the research grant proposals it received over the past 50 years.

“But over the last few years that’s gotten much tighter. We’re down now to about one out of six,” he said during a news conference at the Medical Center.

“THAT MAKES IT VERY STRESSFUL, as you can imagine, if you’re the investigator who’s written a very innovative grant and sent it off to the NIH and you get back the note saying ‘Sorry, you didn’t quite make it.’"

Though 85 percent of the NIH budget goes out the door in grants, Collins said the NIH funding helps train the next generation of biomedical researchers.

His visit coincided with requests for new or renewed funding by some of UMMC’s signature research programs.

A major part of the Jackson Heart Study’s funding expires in May, said Dr. Herman Taylor, principal investigator and professor of cardiology. JHS is the nation’s largest comprehensive population study of African-Americans and is a collaboration between UMMC, Jackson State University, and Tougaloo College.

Last month, Taylor and his team submitted grant applications requesting tens of millions of dollars to two NIH institutes for another five-year round of funding.

“We’ve compiled one of the most important data sets on the planet, to steal a quote from a colleague,” Taylor said. “Our publications are rolling in, we’ve got ancillary studies under way and we are constantly finding new and exciting leads to pursue.

“We have got to keep this momentum going,”

The Mississippi Center for Obesity Research, known as MCOR, also is seeking NIH funding through part of a grant application by the physiology department. Dr. John Hall, associate vice chancellor for research and physiology department chair, founded MCOR a couple of years ago to build scientific strength into the fight against the nationwide obesity epidemic that’s so pronounced in Mississippi.

IN HIS PRESENTATION TO COLLINS, Hall outlined current research into hormones and other factors that control appetite and metabolism.

Collins credited his presentation to Collins, Hall outlined current research into hormones and other factors that control appetite and metabolism.

Dr. Craig Stockmeier, director of the decade-old Center for Psychiatric Neuroscience, recently applied for another five-year NIH grant. The center’s research focuses on the cellular, molecular and behavioral aspects of depression and alcoholism.

Collins, who visited at the request of U.S. Sen. Thad Cochran, noted NIH grants to Mississippi colleges and universities directly support jobs nationwide, and one dollar spent returns $2.21 in one year in economic services and investments made.

“There are very few investments that get made by the U.S. government that have that kind of economic turnaround,” Collins said, “let alone that this is our best hope for finding answers to medical problems.”

Cochran acknowledged the many demands on federal revenue, from defense to national parks.

“In all likelihood, competition will increase for federal dollars,” Cochran said. “We’re going to have to invest public dollars along with encouraging – through the tax code or otherwise – investments by the private sector to the fullest extent of our capabilities.”

Collins credited biomedical research spending with increasing life expectancy in the U.S.

“LONGEVITY FOR SOMEONE BORN TODAY is about 79 years, a figure that’s been increasing through the past 50,” he said. “Now we have to be careful that we don’t see that level off, or we’ll begin to lose ground because of the terrible toll that obesity and diabetes may take on our society if we don’t figure out that problem.

“What do we need for that? We need a lot of things, but one of the things we need most is rigorous medical research to try to understand what kind of interventions will actually work. And they’re going to be multi-component and complicated, but we need to get those answers.”

October 22, 2012 | CENTERVIEW
Campaign teams MSU-Ole Miss together for BCH

Patients at Batson Children’s Hospital have one more reason to root for the Rebels and the Bulldogs. At each of the last three home football games at Mississippi State and Ole Miss, the universities will feature the state’s only children’s hospital in a campaign aimed at raising awareness of the hospital’s critical mission and needs.

As part of the coin toss at each game, Batson patients will be on the field and recognized as honorary co-captains. Outside the stadium, volunteers will staff a tent three hours before kickoff inside FanFair at Mississippi State and at Rebel Fanfare at Ole Miss where fans can donate $5 for an “Our Kids Got Game” bracelet in the respective school colors. The bracelets are available in Pediatrics, Batson Administration, Public Affairs and in the Children’s Cancer Clinic.

Vice chancellor speaks at Alliance event

Dr. James Keeton, UMMC associate vice chancellor for health affairs, chats with Dr. Missy Daniel, chair of the UMMC Alliance board of directors, during the Alliance Fall Luncheon, held October 17 at the Norman C. Nelson Student Union. Keeton was the event’s keynote speaker.

The Alliance is a social and charitable organization that raises funds through multiple yearly events including Taste of the U and spring and fall luncheons. Funds support UMMC patients, students, families, faculty and staff.

Recent donations by the Alliance have helped the Children’s Justice Center purchase equipment to aid in diagnosing abuse, supported construction of a reflection garden for patients at University Rehabilitation Center, and purchased exercise and study equipment for UMMC students.

Alliance memberships are $20 for individuals and $35 per couple and are available online at alliance.umc.edu