UF | UNIVERSITY of FLORIDA

Florida Physician

2011 SPECIAL EDITION

COLLEGE OF MEDICINE

Shifting INTO HIGH GEAR

A Roadmap for

Innovation defines our past, and

BY MICHAEL L. GOOD, M.D.

Over our relatively short 55-year history, the UF College of Medicine has developed into a premier medical school because of innovative leaders who set our standards high from the beginning. In the past two years, as the leadership landscape has changed significantly — not just at the College of Medicine but also within the UF Academic Health Center — we have emerged from the transition period stronger and more clearly focused on our goal of becoming a national leader in scientific discovery and medical education.

Since being named the ninth dean of the College of Medicine in December 2009, I have made it a priority to recruit and retain proven thought leaders, providing them with the resources they need to build exceptional teams of physician-scientists who will make vast strides in translational research at UF. We know we are on the right track and improving programs at an extraordinary pace — NIH funding for the most recent federal fiscal year increased by 16 percent. But we will need more than federal funding to improve the quality of health care for our community and around the world.

As the College of Medicine and the rest of the nation reach a crossroad in health care, biomedical research and medical education, it will be our people — faculty, students, staff, alumni and friends — who will help us realize our vision for greatness. We will get there by revising our medical education curriculum under the direction of new senior associate dean for education affairs Joe Fantone, M.D.

Robert Hromas, M.D.
Chair, Department of Medicine

the Future

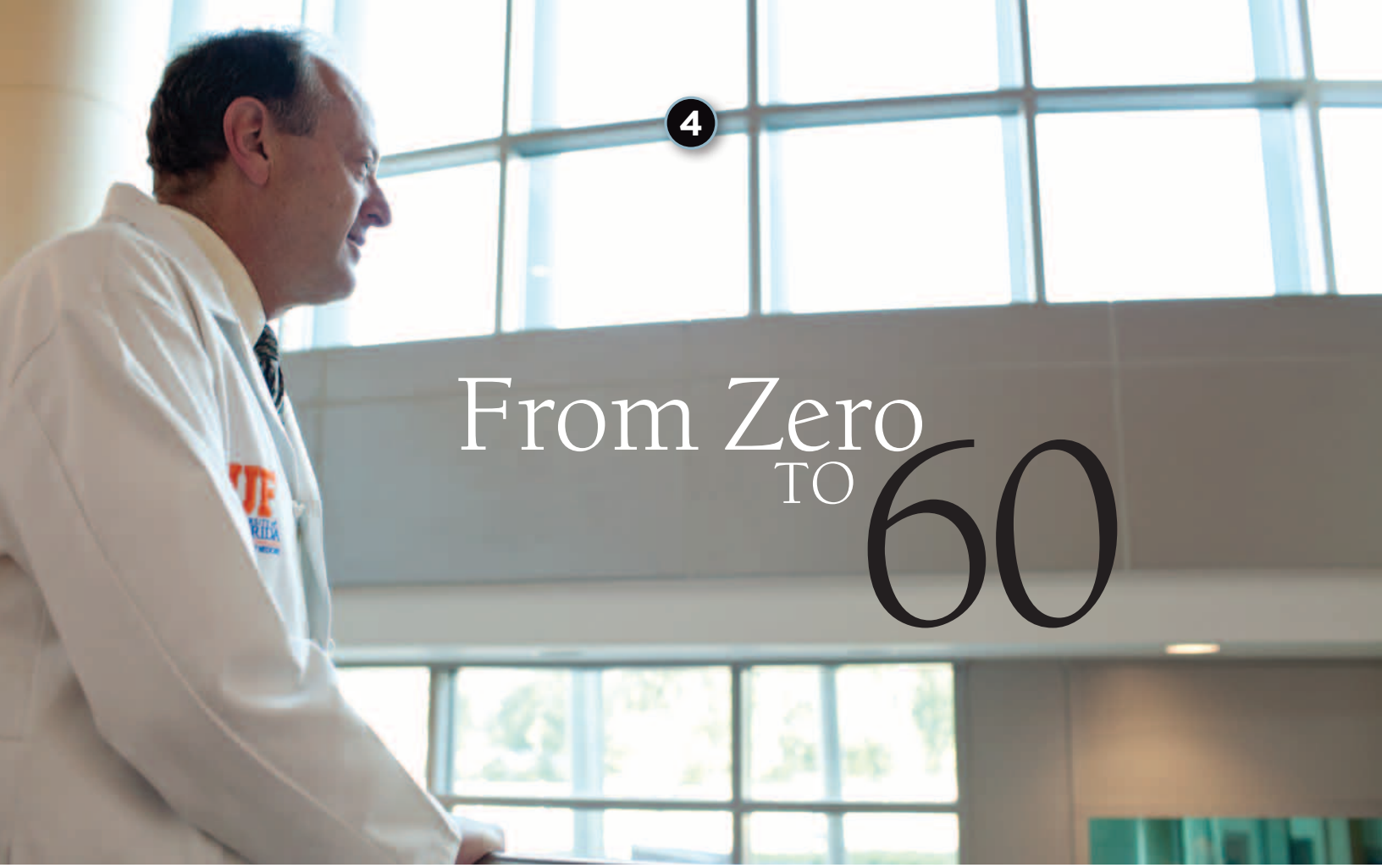
innovation will distinguish our future.

Michael L. Good, M.D.
Dean, College of Medicine

Leaders like Robert Hromas, M.D., who brings to UF a tremendous background in molecular genetics and DNA repair, will guide the department of medicine and strengthen our ability to translate research into discoveries that will benefit patients.

These are just two examples of the synergies that are developing within the college, and the good news is that we are not doing this alone. The College of Medicine anchors a dynamic and integrated academic health center that, under the leadership of Senior Vice President David Guzick, M.D., Ph.D., is on a trajectory to making meaningful contributions to the world's health care problems. We have the distinct advantage of being co-located with a major research university, a large health system, UF&Shands, and the North Florida/South Georgia Veterans Health System. Combined with the vibrant UF&Shands Jacksonville campus, this unique proximity inherently creates robust opportunities for collaboration across UF's 16-college campus.

This special dean's report of Florida Physician provides a glimpse into the activity taking place on our campus that will allow us to continue our tradition of innovation through research and medical education excellence established by our founding leaders. I believe that the next great invention like Gatorade or Trusopt are in our future, that we can develop another innovative learning technology like UF's Human Patient Simulator, which revolutionized medical education, and that UF scientists will discover the treatments for diabetes and other diseases that will change the world. That is progress through people.



From Zero TO 60

Dr. David S. Guzick's strategy creates momentum at UF&Shands

When David S. Guzick, M.D., Ph.D., was hired to head UF&Shands, the University of Florida Academic Health Center, he was charged by President Bernie Machen to integrate the six health professions colleges with one another, with the Shands hospital operations in Gainesville and Jacksonville, and with the main UF campus.

"I knew it would be a challenge to move everyone in the different units from 'we and they' to 'us,'" said Guzick, senior vice president for health affairs and president of the UF&Shands Health System. "And that's exactly what attracted me to UF — when the clinical and academic components of an academic health center are aligned, especially at the University of Florida, the sky is the limit."

Guzick, who is internationally recognized for his work in reproductive endocrinology and was elected to the Institute of Medicine in 2008, tackled the challenge immediately by launching a systemwide strategic planning process that included each health center college dean on the Gainesville campus and Jacksonville regional campus, each center and institute director, and hospital leadership from both Gainesville and Jacksonville.

"Although operating units within the HSC and Shands had done individual strategic planning over the years, there had never been a comprehensive strategic plan across all academic and clinical units and campuses," he explained. "That was the first thing we needed if we were going to work together on future goals and strategies."

After almost eight months of concentrated planning, a strategic plan was in place, and UF&Shands had a blueprint for working together

with a singular focus on the patient.

"It simply comes down to bringing people together with an understanding that we can each achieve our missions of patient care, research and education more readily if we coordinated our efforts, with the patient at the center, across the University of Florida and Shands," Guzick said. "And we can do that here. **There are very few academic health centers that have a comparable constellation of colleges, centers, institutes and hospitals located together on one campus as well as a nearby urban campus."**

Guzick's strategic vision entails a key theme for each mission area: quality and safety in clinical practice, with a focus on faculty ownership of patient care and outcomes; reaching for excellence in research, with a focus on enhanced application of discovery to individual and population health; and creating a national model of interprofessional education across the health science center colleges. Supporting these mission-based themes is a funding plan that emphasizes the use of internally generated resources and philanthropy, and a building and renovation plan that aligns clinical and research programs with facilities.

The building plan had a great head start — while the strategic plan was "under construction," four important buildings were opened: the Shands Cancer Hospital, the Emerging Pathogens Institute, the Biomedical Sciences Building and the Small Animal Hospital. And, despite the downturn in the economy and dwindling state funding, under the strategic plan, the Health Science Center campus has staged three groundbreakings in the last year alone. This included breaking ground for construction of the 100,000-square-foot Academic and Research Building in Orlando, the 120,000-square-foot Clinical and Translational Research Building in Gainesville, a 100,000-square-foot specialty practice building (UF&Shands at Springhill) and a 40,000-square-foot primary care practice building (UF&Shands Family Medicine Center at Main).

"It's certainly time to update the infrastructure on our campus to support research and clinical practice," explained Guzick, who served as dean of the School of Medicine and Dentistry at the University of Rochester from 2002-2009. "Our progress is about more than bricks and mortar, however. It's about our people and our culture. We are creating unstoppable momentum on all fronts. It's an exciting time for Gator health care."

Dr. Guzick Names new Jacksonville Dean

A bigger future, including expansion and new facilities, is in the making at the UF College of Medicine-Jacksonville. In the midst of such growth and progress, leaders with strong track records, like Daniel R. Wilson, M.D., Ph.D., are in demand.

DANIEL R. WILSON, M.D., PH.D.

After an extensive national search, David S. Guzick, M.D., Ph.D., UF senior vice president for health affairs and president of the UF&Shands Health System, named Wilson vice president of the UF Health Science Center-Jacksonville and dean of the UF College of Medicine-Jacksonville in September. Chosen for his leadership, international reputation and sustained academic excellence, Wilson brings a wealth of management experience, ranging from department chair at Creighton University to medical director of a large hospital system in Ohio.

With his anthropology degree from Yale and medical degree from the University of Iowa, Wilson earned worldwide recognition for his wide-ranging scope of academic and research background and hundreds of publications on a cross-section of topics. Furthermore, his experience working as principal investigator on more than 50 research grants, including two current National Institutes of Health awards, will fuel the growing research program at the Jacksonville campus.

Fine-Tuned FOR Success

Dr. Robert Hromas chairs the department of medicine

Robert Hromas, M.D., chair of the department of medicine has been described as a rare quadruple talent — a skilled and respected physician, scientist, teacher and administrator.

But his main passion lies in finding new ways to fight cancer.

He is known as an international authority in blood cancers, such as leukemia, lymphoma and myeloma, and he is a leader in translating research into the discovery of new cancer drugs. After medical school, Hromas trained in blood cancers at the Fred Hutchinson Cancer Research Center with the Nobel Laureate Don Thomas. He now holds over $3.5 million in cancer research grants, and has numerous national medical and scientific leadership positions.

"In medical school I decided I wanted to work with complex problems, and I wanted to find answers to those problems," said Hromas. "That turned me toward cancer."

With an extensive background in molecular genetics and DNA repair, Hromas' work complements research under way at the UF Shands Cancer Center. He has cloned and characterized a novel DNA repair protein that plays a crucial role in both chemotherapy resistance and in HIV integration. Additionally, he has created new drugs that target this protein and is testing them for effectiveness in treating cancers resistant to chemotherapy.

"(Cancer) is not one disease, but hundreds of different diseases," Hromas said. "The intriguing thing is we are beginning to see the molecular basis of these diseases. Our generation of scientists will be able to exploit these for treatment. I think we are ready to make some real advances."

A seasoned administrator, he was a professor and the chief of hematology-oncology at the University of New Mexico and deputy director of the UNM Cancer Center, where he oversaw clinical and translational research and supervised clinical inpatient and outpatient oncology operations.

It is with this combination of leadership, scientific and clinical experience that he aims to advance the department's education and clinical missions, building on UF's current areas of expertise and history.

Hromas' plan calls for forming multidisciplinary, transdivisional centers of excellence, based on UF's existing expertise.

"This is the university where Gatorade was born, after all," he said. "We will continue that tradition of discovery by creating a culture of investigation and caring."

A Navigation System for Healthier Children:

Dr. Scott Rivkees to lead UF pediatrics

Throughout his career, Scott A. Rivkees, M.D., has followed more than one scientific trail. He's studied how babies' biological clocks develop and are regulated. He's developed ways to treat and prevent a common type of brain injury that occurs in premature infants. He's studied thyroid diseases in children and the effects of adenosine on the embryo. The result? He holds four prestigious R01 grants from the National Institutes of Health in different topics and has been continuously funded by the NIH for 25 years.

And though the terrain of these scientific trails may have been diverse, they all led to the same place — helping children.

It's the same approach he took in 2009 when he began investigating anecdotes from other doctors about patients going into liver failure after taking a common medication to treat Graves' disease. He found that about one in 2,000 children who took the medication were dying or going into liver failure each year. This finding led to global changes in medical practice and resulted in a major drug safety warning from the U.S. Food and Drug Administration.

"When we find something interesting, we pursue it with vigor, in the hope our discoveries will help children," said Rivkees, currently a professor of pediatrics and associate chair for research at Yale University.

In February, Rivkees will step into a new role as chair of the University of Florida College of Medicine department of pediatrics and physician leader for the Shands Hospital for Children.

At UF&Shands, Rivkess hopes to continue building on the growth and success of the pediatrics program, particularly by expanding the number and breadth of centers of excellence that improve health care for all of Florida's children.

"It is very clear that the medical center is going through a tremendous transformation. It is a program that is clearly on the rise," he said. "Working together, we will continue the department of pediatrics' evolution into a destination site of fantastic patient care, a center of discovery for the benefit of children, and a hub for training the next generation of pediatricians and physician-scholars."

A Hybrid Approach

UF taps **Dr. Linda Cottler** to establish the department of epidemiology

In the opinion of Linda Cottler, Ph.D., M.P.H., there are more similarities among the people of the world than there are differences. And with that belief, the internationally recognized epidemiologist brought her pioneering work in community-based research to the University of Florida.

"The greatest need in the scientific community is to make people healthier," she said. "There are so many ways we can do that."

As the founding chair of UF's department of epidemiology, a newly created department administered jointly by the College of Medicine and the College of Public Health and Health Professions, Cottler will expand the program HealthStreet, which she developed at Washington University School of Medicine in St. Louis. The program connects St. Louis residents to health care referrals, medical care, social services and opportunities to participate in research.

"Only 1 percent of the U.S. population is involved in research," Cottler explained. "So many people are underrepresented when treatments are developed. Those treatments then are not culturally relevant or simply don't work."

And despite the similarities among the people of the world, it's the differences that affect health outcomes among entire populations that motivate Cottler to provide "hubs" like HealthStreet. The goal is to link people who have never been linked to research before with the investigators.

Cottler's reach will extend beyond north central Florida. In fact, she was recently awarded a Fogarty International training grant to train mental health professionals from India.

The broad opportunities for collaboration across the six colleges of the Health Science Center and a leadership that is committed to community-based research sold Cottler on UF, helping her leave a university where she had spent 31 years.

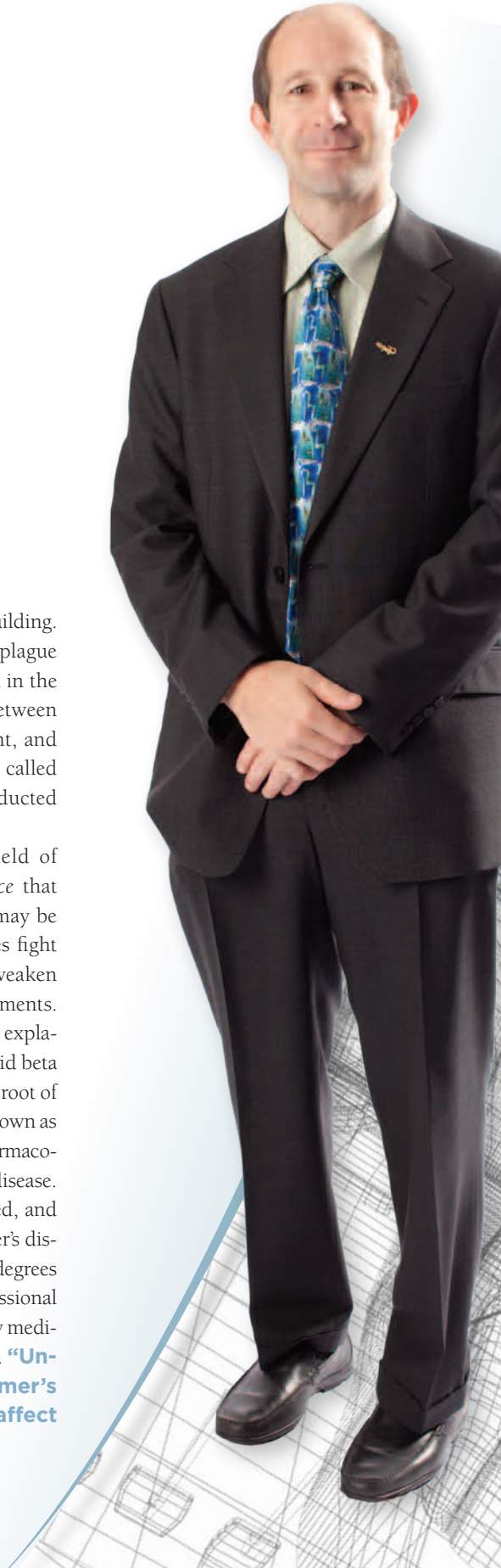
"I was struck by the openness and inclusiveness of the leadership," she said.

The university's Clinical Translational Science Award, received in 2009, was also a determining factor in Cottler's move. The department of epidemiology will be housed in UF's Clinical Translational Research Building when construction is complete in 2013.

"It is integral to everything we want to do," she said of UF's CTSA. "I know that with the vast resources available and the commitment from the university, we can make this department one of the strongest in the country."

Accelerating THE Fight Against Alzheimer's

Dr. Todd Golde named director of new Center for Translational Research in Neurodegenerative Disease



"As physician-scientists, we're trying to prevent human suffering. We can impact Alzheimer's disease so fewer people get it — that's our goal," says Todd Golde, M.D., Ph.D., director of the College of Medicine's new Center for Translational Research in Neurodegenerative Disease.

Golde, a leader in the fight against brain diseases and in drug discovery to help Alzheimer's patients, was recruited to UF from the Mayo Clinic in Jacksonville, where he was chair of the neuroscience department.

He hit the ground running. Within months of his arrival in Gainesville, he received the 2010 MetLife Foundation's Award for Medical Research in Alzheimer's Disease, and began setting up labs and assembling his research team in the new Biomedical Sciences Building.

This May, he held a mirror up to the problems that plague Alzheimer's research in the United States in an editorial in the journal *Neuron*. He pointed to a lack of alignment between studies in human volunteers, which focus on treatment, and laboratory studies, which are aimed at prevention. He called for a paradigm-shift in the way clinical studies are conducted and funded.

And for good measure, he ventured into the field of Parkinson-like diseases, writing in *Nature Neuroscience* that some of the characteristic stiffness and gait problems may be because when people prone for Parkinson-like diseases fight infections, friendly fire from the immune system may weaken a brain pathway essential for smooth, coordinated movements.

But fighting Alzheimer's disease is his imperative. His explanation in 2008 of the molecular interplay between amyloid beta protein — the brain plaque many scientists believe is the root of Alzheimer's disease — and a class of therapeutic agents known as gamma-secretase modulators, has helped forward new pharmacological therapies for testing in patients with Alzheimer's disease.

"We already have more than 5 million people affected, and half of people in nursing homes, or more, have Alzheimer's disease," says Golde, who received his doctoral and medical degrees at Case Western Reserve University and began his professional career as an assistant professor of pathology and laboratory medicine at the University of Pennsylvania School of Medicine. **"Unless we do something about it quickly, Alzheimer's will continue to burden so many families and affect the quality of human life."**

Driving Discov
IN Clin

Drs. Tetsuo Ashizawa and **Laura Ranum** sharpen focus on 'NeuroGenetics'

A leading researcher who digs for disease-causing genes hidden within the human genome has joined the College of Medicine as director of its new Center for NeuroGenetics.

Laura Ranum, Ph.D., came to UF from the University of Minnesota, where she was a professor in the department of genetics, cell biology and development. She specializes in the study of myotonic dystrophy — the most common form of muscular dystrophy in adults — and ataxia, a rare brain disease that robs people of their coordination and motor control.

A bioprospector in the human genome, she searches for heritable disease genes and tries to understand how they actually wreak havoc in the brain or elsewhere in the body. She uses human genetics to define the molecular causes of neurological disorders and laboratory models to understand how these mutations cause neurons in the brain to die.

As the director of the Center for NeuroGenetics and a professor in the department of molecular genetics and microbiology, Ranum immediately revved up collaborations with UF researchers, including Maurice Swanson, Ph.D., a professor of molecular genetics and microbiology and an internationally recognized expert on the role that RNA plays in neurological disease, and Tetsuo Ashizawa, M.D., the executive director of the McKnight Brain Institute and chair of the department of neurology.

Ashizawa joined UF in April 2009 and, like Ranum, is an ataxia researcher. He is the principal investigator for the Clinical Research Consortium for Spinocerebellar Ataxias, which includes nine other institutions, including the Johns Hopkins University and Harvard University.

"Dr. Ranum is creating a program to address genetic disorders in a comprehensive fashion," Ashizawa says. "She is a gene hunter who figures out the cause of neurogenetic disorders and tries to make patients' lives easier with a cure or a treatment. She and her Center are a very good fit for the McKnight Brain Institute and the UF Genetics Institute."

ery
ical Genetics

Using family history to bridge the gap between clinical neurology, basic science and gene discovery, scientists with the Center for NeuroGenetics round out UF's clinical genetics research program, notable for its pioneering use of viral vectors to deliver corrective genes.

"If we can understand the disease process, we can fix it," Ranum says. "An analogy I use is scientists have very focused questions that shine a light in a very precise way and reveal part of the story. Every time we connect a gene to a problem, we add another beacon of light. Once we have lots of beacons — and that is what we have opportunity to do here at UF — we will have a better understanding of neurological disease and be in a much better position to fight these diseases."

"Every time we connect a gene to a problem, we add another beacon of light."

— Laura Ranum, Ph.D.

Mapping A Course Toward Better Treatments

Connecting the neurological dots to understanding and treating addictions

For decades, UF researchers have been leaders in the science of addiction medicine. It began in 1984 when Mark S. Gold, M.D., chair of the department of psychiatry and distinguished professor, and other scientists working with him were the first to propose the groundbreaking "dopamine hypothesis." This proven and accepted theory, which helps explain where addiction begins in the brain, also helped scientists develop tools for better treatments.

UF's addiction medicine program is poised to make similar breakthroughs by expanding its team of physician-scientists with expertise in the areas of eating disorders, depression, prescription misuse and other psychiatric disorders that have become national health care crises.

Dr. Kevin Wandler

Kevin Wandler, M.D., trained in psychiatry and addiction psychiatry and one of the nation's clinical experts in anorexia, bulimia and other eating disorders, has been tapped to establish a new treatment and research program aimed at helping patients with these conditions. The Eating Disorder Recovery Center at UF will evaluate and treat inpatients, outpatients and residential patients.

Until now, there have been virtually no academic programs providing evidence-based treatment with an internationally recognized research program to develop new insights and treatments. The new UF eating disorders program will be the first of its kind in the region and will feature inpatient, residential, evaluation and outpatient treatment options.

During his 16 years as chief medical officer and director of the largest private eating disorders program in the U.S., the Center for Anorexia and Bulimia at Remuda Ranch, Wandler safely treated 10,000 patients and helped grow the program from a 20-bed facility to one equipped to serve 150 patients.

Dr. Martha E. Brown

Martha E. Brown, M.D., an expert in pain and iatrogenic addictions as well as in in treating health professionals who over-prescribe pain medications, has brought her intensive educational program for re-training physicians and other health professionals to UF. Previously the medical director of Louisiana's Physician Health Program and a consultant to the National Football League, Brown, an associate professor of addiction medicine at the College of Medicine, has established an intensive educational program in prescribing pain medications, professionalism and the proper monitoring of patients being prescribed pain medications. Physicians from around the South come to UF for her physician re-training programs. She is also the assistant medical director of Florida's Professional Resource Network, an organization that by statute coordinates evaluations, treatment, case management and advocacy for all licensed physicians and health care professionals (except nurses) who have had problems but are now in compliance with monitoring and treatment recommendations.

Brown also leads UF's pioneering mandatory two-week undergraduate medical clerkship in addiction medicine and in training the next generation of addiction medicine physicians and addiction psychiatrists.

Dr. Rick Shriner

Rick Shriner, M.D., an internist and psychiatrist, is medical director of UF's freestanding inpatient psychiatric hospital, Shands Vista. He also is the hospital's director of psychiatric services, bringing decades of experience in internal medicine, psychiatry and medical psychiatry to deal with the complexities of depressed, suicidal and psychotic patients who have been difficult to treat elsewhere.

Patients from Atlanta to Miami have started to come to UF for a Shriner-led evaluation and treatment. He also leads patient care, treatment and education of obese patients and those with pre-and borderline diabetes. UF researchers and faculty working on both eating disorders and obesity are collaborating on projects from Florida to Princeton to New Haven to Beijing. This work, built on the food addiction hypothesis and studies developed by Gold, Bart Hoebel and Nora Volkow, M.D., builds on decades of work on food, sugar, manufactured foods, addiction, eating disorders and obesity.

"Our goal is to help patients live with food — instead of being ashamed of eating — in the healthiest way possible," Shriner said.

A Patient's Perspective

The UF College of Medicine is one of the nation's first sites to offer an accredited residency training program in addiction medicine. While the college has had fellowships in addiction medicine for years, this program is something new. Residents learn from international authorities about addiction medicine and help patients like Michelle Markant recover at UF's nationally recognized treatment centers.

Scan this QR code to learn more about Michelle Markant's recovery.

A Pacesetter

Dr. Frederick Moore translates science from the bench to the O.R.

It was at "The Knife and Gun Club" where surgery resident Frederick A. Moore, M.D., developed his academic career as a trauma surgeon. The nickname is often given to innercity trauma centers, many of which opened in the '70s after the Vietnam War with the goal of learning how to treat victims of gunshot wounds.

It was among the adventure and drama of this place where Moore was exposed to the "robust" practice of translational research and developed the idea that the specific needs of each patient in the ER who required an emergency operation can be met by expanding the scope of the trauma surgeon into the intensive care unit. Trauma surgeons, he said, need to be able to operate on and care for patients with nontraumatic conditions and those with critical illnesses.

"The way I approach the research of trauma surgery is that we partner with basic scientists to understand the biology of the disease we treat," said Moore, chief of acute care surgery at the UF College of Medicine who arrived at UF in July from Methodist Hospital in Houston. Moore previously served as vice chair of surgery and chief of general surgery at the Unversity of Texas-Houston Medical School, as chief of surgical critical care at Denver General Hospital and as associate professor of surgery at the University of Colorado Health Science Center.

Moore spent 20 years working with large, interdisciplinary teams of scientists with steady funding from a National Institutes of Health P50 grant to understand the inflammatory response that occurs after trauma or sepsis, which may impair a patient's ability to survive and return to normal life.

His goals for the acute care surgery program at UF&Shands include establishing a two-year acute care surgery fellowship, expanding a team of surgeons experienced in a wide variety of trauma, burn and surgical critical care, strengthening partnerships with smaller community hospitals in the region and developing a robust translational program.

"Everybody wins when you do this because you get 40 different brains thinking about these complex issues in different ways and you know you are covering all possible bases."

A Lifesaving Application

Now you can use your smartphone to help revive a patient thanks to an application that allows you to time your breath and chest compressions and indicates the proper time to administer medication and defibrillation.

A new CPR app, created by UF College of Medicine physician-scientists geared toward first-responders, does just that. In the heat of the moment, this app could be a lifesaver.

Scan this QR code to learn more.

High Performance

UF researchers seeking to better prevent, manage and cure Type 1

When Matt Danner learned he had Type 1 diabetes two years ago, he wasn't worried about the possible long-term complications or the fact that his survival depended on injecting insulin for the rest of his life. Like most pre-teen Canadian boys, Matt had more pressing concerns.

"His first question was, 'Does that mean I can't play hockey?'" recalls his mother, Laurie Danner.

With help from UF's Diabetes Center of Excellence, Matt has answered his own question with a resounding "no." In 2009, he participated in a UF study led by assistant pediatrics professor Mike Haller, M.D., using stem cells from Matt's umbilical cord blood as an experimental therapy to protect his body's natural insulin-producing cells. His mother credits Haller and the study with not only prolonging Matt's ability to produce his own insulin, but also with teaching him how to control his blood sugar. Today, the Oakville, Ontario, 13-year-old takes to the ice nearly every day. He dreams of playing in the National Hockey League.

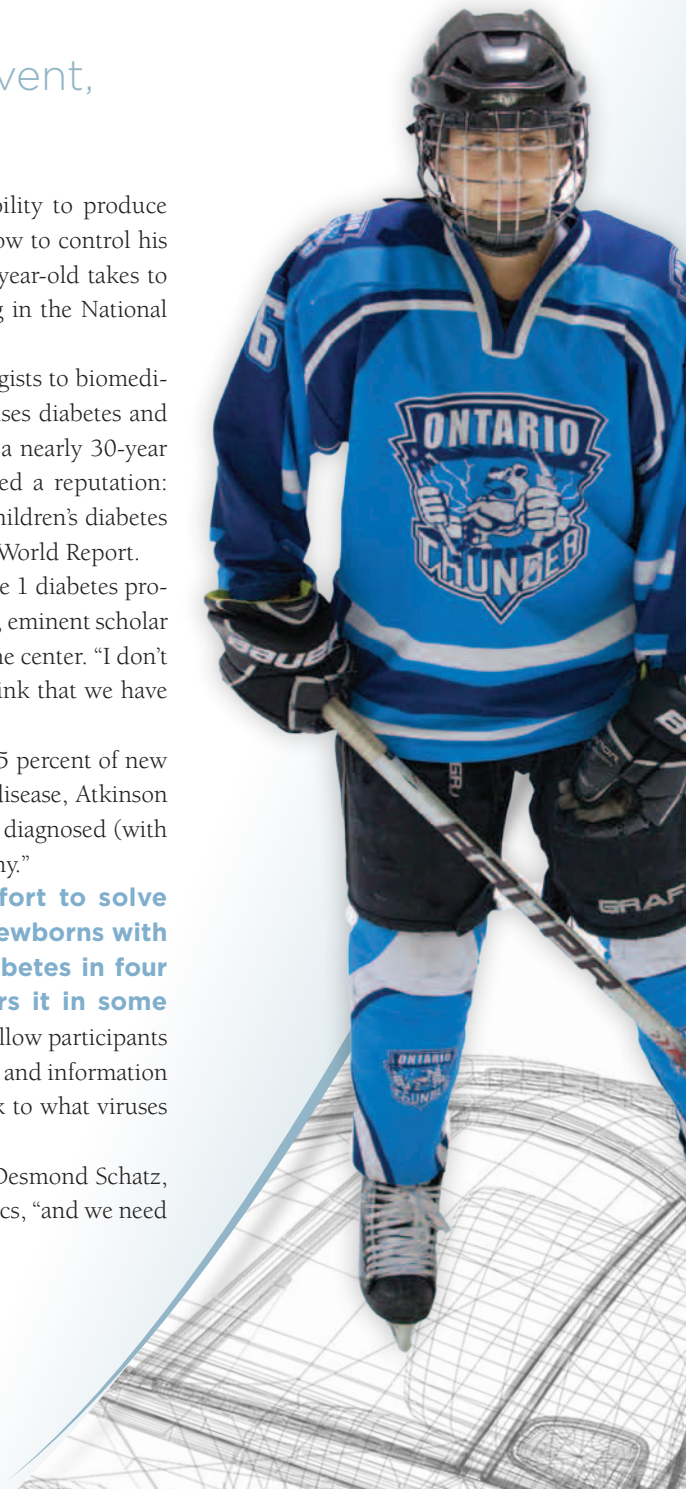
At the UF center, experts from endocrinologists to biomedical engineers are working to unravel what causes diabetes and to better prevent, manage and cure it. Led by a nearly 30-year veteran team of doctors, the center has earned a reputation: Shands at UF ranks No. 12 in the nation for children's diabetes and endocrinology, according to U.S. News & World Report.

"I really believe we have one of the best Type 1 diabetes programs in the world," says Mark Atkinson, Ph.D., eminent scholar for diabetes research at UF and co-director of the center. "I don't know where the cure (will be found), but I think that we have a good chance here."

Type 1 also has a genetic component, yet 85 percent of new cases occur in families with no history of the disease, Atkinson says. "There's an explosion of cases in children diagnosed (with Type 1) at a very young age. We don't know why."

UF is part of an international effort to solve that mystery, tracking about 8,000 newborns with increased genetic risk for Type 1 diabetes in four countries to determine what triggers it in some children but not others. The study will follow participants for 15 years, collecting blood and stool samples and information about everything from what they eat and drink to what viruses they contract.

"We need to find out what causes it," says Desmond Schatz, M.D., a professor and associate chair of pediatrics, "and we need to stop it."



Engine Rebuild

Dr. Joe Fantone creates a renewed vision for UF medical education

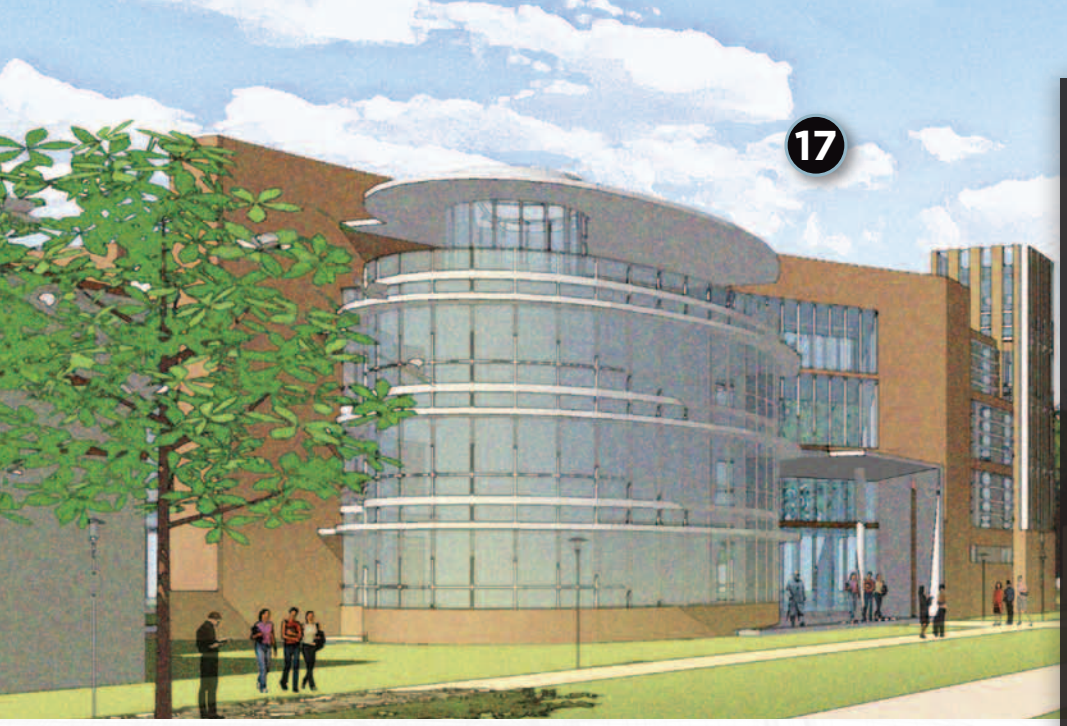
As a physician trained in anatomical pathology, Joe Fantone, M.D., is an expert in diagnosis through close examination, critical analysis and evidence-based decision making. As the senior associate dean for educational affairs at the College of Medicine, Fantone utilizes a similar approach to curriculum review that will lead the UF medical school into the future.

Exponential growth in medical knowledge and technology, along with evidence that team approaches yield safer more effective health care, he says, have transformed how future physicians are educated.

"Traditionally, medical students spent their first two years in medical school acquiring large bodies of biomedical science knowledge, and in the third year they would progress to the hospitals and clinics, where they were asked to retrieve what they had learned, so they could use it to solve clinical problems," Fantone explains. "Often, a lot of what was learned had to be reorganized and applied in the context of patient care.

"Medicine moves too fast now, students must become more clinically mature — able to solve problems and take care of patients — much earlier."

Shortly after joining UF, Fantone, working with students and faculty, initiated a major curriculum assessment and revision process. He is no



New methods for teaching and learning will require the right kind of spaces and resources. The UF College of Medicine is planning to build a new medical education building on the UF Health Science Center campus to support an invigorated curriculum.

stranger to large academic medical centers or to the essentials of medical education. In his previous role as associate dean for medical education at the University of Michigan, he led a successful accreditation process, helped develop a funding model to support teaching efforts and helped design a new medical curriculum.

He says a patient-centered approach to learning within the context of collaborative team approaches to health care delivery is the philosophical underpinning of the curriculum revision. Fantone is currently working with Senior Vice President for Health Affairs Dr. David S. Guzick and College of Medicine Dean Dr. Michael L. Good to design and build new facilities for medical education.

"Our new curriculum will require spaces for small group discussions, access to advanced technology, simulation equipment and rooms (ICU, ER, patient exam room), and flexibility so we can adjust the size of the learning groups to meet specific objectives, such as interprofessional team training," Fantone explains.

The new facilities, he says, will provide UF the opportunity to bring students together in teams and spaces that simulate the real clinical world.

"We have six health sciences colleges on one campus," he continues. "That gives us the ability to design team training that includes, for example, students from medicine, nursing, pharmacy and the physician assistants program."

In addition to ensuring UF-trained physicians have the ability to access and apply information learned to complex clinical problems and to engage in interprofessional teamwork across disciplines and professions, the new curriculum will provide an increased emphasis on communication with a focus on each patient as a unique individual.

"Our challenges are daunting but at the same time exciting," Fantone says. "Innovative methods for teaching and learning and new, modern facilities will engage our students and our faculty in ways that are not only more effective, but more enjoyable.

"But the most important outcome will be their ability — earlier in their training and throughout their professional lives — to deliver compassionate, collaborative and personalized patient care."

Teaching Without Risk

There is an anesthesia machine so smart that it understands 23 languages and six country-specific medical color codes. Created by physicians and scientists at the UF College of Medicine, the award-winning Virtual Anesthesia Machine is the original web-based interactive simulation of an anesthesia machine. It simulates the inner workings of an anesthesia machine and ventilator to help educate students, residents and anesthesiology professionals all around the world.

Scan this QR code to test your skills.

Equipped to Speed the Translation of Science

New buildings on UF campus designed to fast-track discoveries to patients

Clinical and Translational Research Building

Groundbreaking: May 2011
Opening: January 2013

The Clinical and Translational Research Building, a new home for research that will speed scientific discoveries to patients, will spark collaboration and spur medical advances by bringing together research teams from a range of scientific disciplines. The building will house the UF Institute on Aging, the Clinical and Translational Science Institute and an array of other research departments and clinical programs. The Institute on Aging complex is funded through a $15 million grant from the NIH National Center for Research Resources and will provide for a one-stop facility that will make it easier for mobility-restricted older adults to take part in clinical trials.

The almost 40,000-square-foot Institute on Aging complex is funded under the American Recovery and Reinvestment Act of 2009 through a $15 million grant from the NIH National Center for Research Resources. The adjoining 80,000-square-foot portion of the facility is funded by $30 million from UF.

"This is a unique and well-timed opportunity to have basic and clinical scientists and health services researchers working together as neighbors and partners toward improving the health and independence of older adults," said Marco Pahor, M.D., director of the UF Institute on Aging. Pahor is the principal investigator awarded $64 million over six years from the National Institute on Aging to study whether exercise prevents disability in older adults.

Marco Pahor, M.D.

Biomedical Sciences Building

Opened: May 2010

The University of Florida — already home to the largest biomedical enterprise in Florida — dedicated a new research facility last year that will stimulate the kind of cross-disciplinary interactions that lead to innovations in patient care. The new Biomedical Sciences Building brings together scientists from different UF colleges and disciplines to advance medical discoveries and translate them into treatments for patients.

The $90.5 million, 163,000-square-foot building includes open labs, in which teams are not cut off from each other by walls. It houses researchers from the colleges of Medicine, Engineering and Public Health and Health Professions as well as the UF Diabetes Center of Excellence and the UF Center for Translational Research in Neurodegenerative Disease, and the J. Crayton Pruitt Family department of biomedical engineering. It also features the Howard Hughes Medical Institute Science for Life laboratory.

Emerging Pathogens Institute

Opened: February 2010

The new home for the Emerging Pathogens Institute signifies the growth and collaboration that positions the institute as the adviser to state, national and global health organizations when life-threatening diseases surface.

The 80,000-square-foot building is the state's first research facility focused on preempting and fighting the next new or remerging pandemic or epidemic.

"EPI is like a matrix organization, and this new building serves as a hub for faculty from eight UF colleges, with investigators working on projects that span disciplines and 32 countries," said institute director J. Glenn Morris, M.D., M.P.H.T.M. "No other pathogens research facility in the nation has the breadth and scope of expertise that we do," said Morris, a professor of infectious disease at the College of Medicine.

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New hospital homes for our patients

With a strategic vision to align clinical programs with facilities, the leadership of UF&Shands has committed to improving the infrastructure on both campuses of the academic health center, as is evidenced in recent openings (clockwise from top): Shands Cancer Hospital and Shands Critical Care Center at UF, UF Proton Therapy Institute in Jacksonville, Chest Pain Emergency Room and the Pediatric Emergency Room at the Shands Hospital for Children at the University of Florida.

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