



# Florida Tomorrow | College of Medicine





# Florida Tomorrow ... and the College of Medicine

## Excellence and aspiration

As UF's College of Medicine builds on 50 years of excellence and achievements, we face extraordinary opportunities and equally extraordinary challenges in order to compete successfully and keep pace with the rapidly changing field of medicine.

**Students:** We are attracting and developing the students with the greatest potential to become the scientific and clinical leaders of their generation. Cultivation of this talent requires a significant investment, one that far outstrips the financial support provided by the Florida Legislature. Because competition for the nation's best students is fierce, scholarships are desperately needed in order to attract the best and the brightest and to offset the financial burdens that many years of medical training imposes. The College of Medicine must continue to find other sources of support for our students, so they can focus on developing preventions, treatments and cures for today's diseases.

**Faculty:** Our faculty members are well on their way to developing novel treatments and cures for such common and menacing diseases as cancer, diabetes, blindness and high blood pressure. Funding from private sources to support exceptional clinical and research faculty is greatly needed to accelerate the pace of new discoveries and treatments. Financial support is particularly needed for young physicians and scientists to help realize their tremendous potential. Additional endowed professorships are also needed as they are the key to attracting and retaining the best medical faculty leaders. Endowments provide them with the resources needed to fuel their research and support their mentorship of tomorrow's physicians. An appointment to an endowed professorship is one of the highest honors in academic medicine as well as an important career achievement.

**Facilities:** The College of Medicine is 50 years old and so are its facilities. There is no question that we need to construct an education building that will provide the latest teaching facilities and technologies to transform the way clinical and research professionals are trained. The building will be designed to foster collaboration and will include wireless communication, classrooms with multimedia capabilities, patient simulation areas that employ virtual reality and computerized mannequins programmed to simulate illness, areas for clinical teaching of students videotaped with standardized patients, and conference areas where students can learn of groundbreaking advances in science and medicine.

We are building tomorrow's research and health-care teams, using new approaches and technologies to provide the most advanced and accessible care, delivered with compassion and skill. With greater levels of private funding, we will be successful in building a stronger College of Medicine, one that is known as a national champion in the battle against disease.

### The Promise of Tomorrow

The University of Florida holds the promise of the future: *Florida Tomorrow* — a place, a belief, a time. *Florida Tomorrow* is filled with possibilities. *Florida Tomorrow* is for dreamers and doers, for optimists and pragmatists, for scholars and entrepreneurs, all of whom are nurtured at Florida's flagship university: the University of Florida, the foundation of the Gator Nation.

What is *Florida Tomorrow*? Here at the College of Medicine, we believe it's an opportunity, one filled with promise and hope. It's that belief that feeds the university's capital campaign to raise more than \$1 billion.

The *Florida Tomorrow* campaign will shape the university, certainly. But its ripple effect will also touch the state of Florida, the nation and the entire world. *Florida Tomorrow* is pioneering research and spirited academic programs. It's a fertile environment for inquiry, teaching and learning. It's being at the forefront to address the challenges facing all of us, both today and tomorrow.

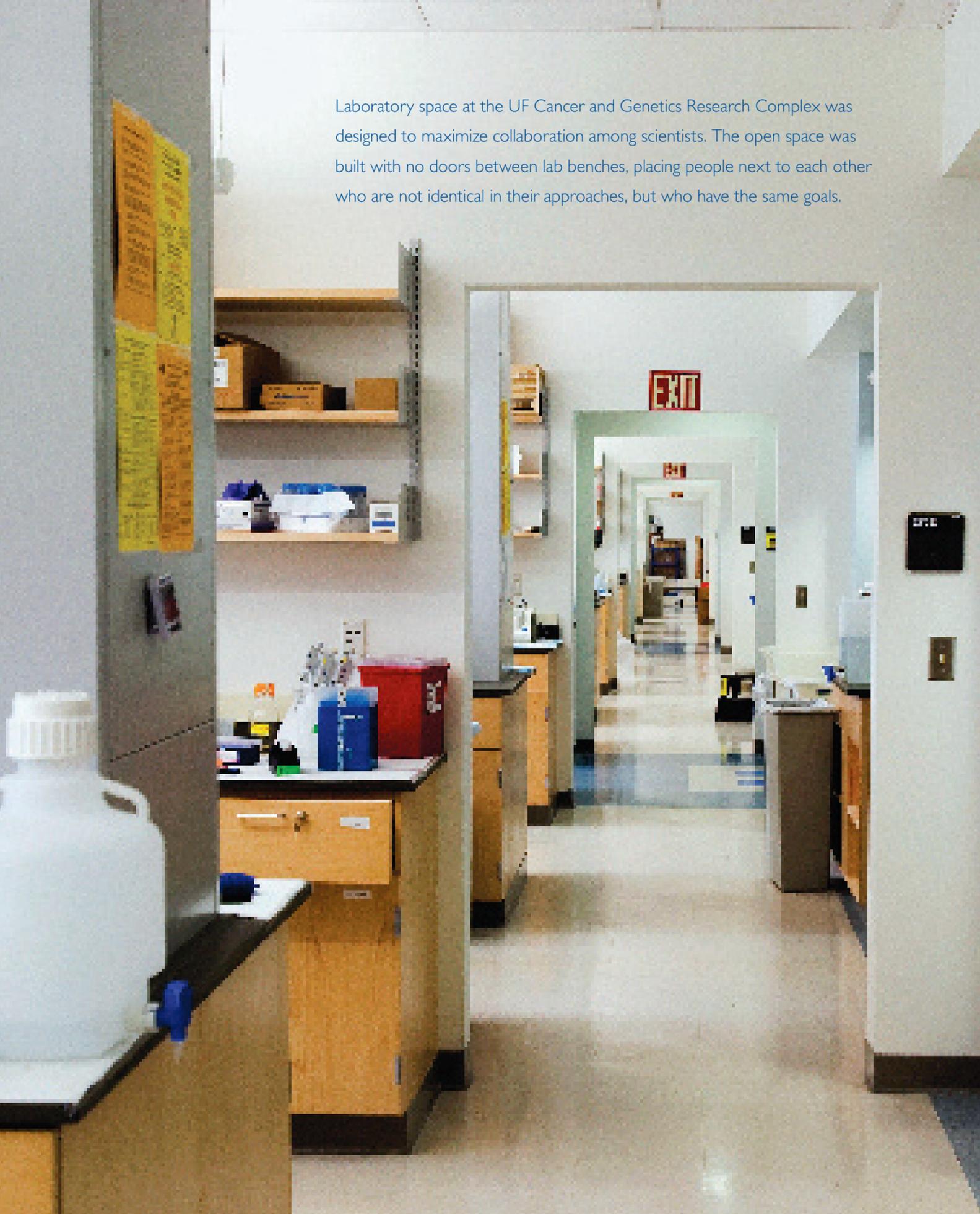
### College of Medicine

#### Florida Tomorrow Campaign Goals

Faculty Support	\$110 million
<i>Endowed Professorships</i>	
Graduate Support	\$15 million
<i>Medical School Scholarships (\$5 million)</i>	
<i>Fellowships (\$10 million)</i>	
Campus Enhancement	\$50 million
<i>HSC Education Building (\$40 million)</i>	
<i>UF Proton Therapy Institute (\$10 million)</i>	
Program Support and Research	\$140 million
<i>Aging and Geriatrics Research and Development (\$20 million)</i>	
<i>Cancer Research (\$50 million)</i>	
<i>Diabetes Research (\$10 million)</i>	
<i>Genetics Research (\$10 million)</i>	
<i>Medical Research Discovery and Development (\$50 million)</i>	
<b>TOTAL</b>	<b>\$315 million</b>



Laboratory space at the UF Cancer and Genetics Research Complex was designed to maximize collaboration among scientists. The open space was built with no doors between lab benches, placing people next to each other who are not identical in their approaches, but who have the same goals.



## Florida Tomorrow is a place ... where thousands of physicians, scientists and scholars work together to discover, perfect and deliver the world's most advanced health care.

### Potential of Gene Therapy

When patients talk with Dr. Barry Byrne, director of the Powell Gene Therapy Center, they ask one question over and over: "When can I try gene therapy?" After all, for those facing chronic illnesses — anything from cardiovascular and pulmonary disease to Parkinson's — gene therapy offers a promising new horizon.

"Patients are following the developments. They're clamoring for this type of treatment," Byrne says. "I can't wait to tell them, 'Yes, we're ready to start.'"

Gene therapy's potential was becoming clear at the University of Florida in the early 1980s. That's when College of Medicine professors Drs. Ken Berns and Nicholas Muzyczka modified and patented a groundbreaking gene-therapy delivery system using AAV — short for adeno-associated virus. Their vector serves as a vehicle to deliver healthful genes to patients.

Now — before widespread gene-therapy treatment can proceed — scientists are making sure the treatment is safe and effective. In that effort, UF is again leading the way. The university's National Gene Vector Laboratory Toxicology Core Center, for instance, is one of just two such facilities nationwide that administer tests for many gene-therapy studies. And UF is also conducting clinical

trials for inherited eye disease and Pompe disease, a hereditary heart condition that is usually fatal within the first year. In the Pompe disease trial, the corrective gene is packaged in a type of AAV that collects in heart tissue, allowing the treatment to be delivered by a single injection into a vein, rather than directly into the heart. Byrne hopes that a single treatment will provide patients with lasting benefits.

"One of the key findings from the work done here is that these are long-lasting therapies," Byrne says. "That's the neat thing about molecular medicine that's different from conventional drug therapy."

Byrne is looking forward to the day that he can offer gene therapy to those with conditions that can't be cured by traditional medicine.

"It's an exciting time, there's no doubt about it," he says. "When you can take a problem that seems unbeatable and offer a novel therapy to combat it, that's exciting."



# Florida Tomorrow is a day ...

when standards are set and excellence is achieved in academic medicine.

## Stopping the Diabetes Tide

Diabetes is a growing epidemic. Affecting 18 million people in the United States — a number projected to grow to more than 30 million by 2012 — the disease causes up to \$142 billion a year in health-care costs. The outlook is particularly dire for children, whose record obesity rates have led to an upswing in Type 2 diabetes, once considered an adults-only problem. A report by the Centers for Disease Control and Prevention predicted that if obesity rates grow as projected, a third of American children born in 2003 will go on to develop diabetes.

The University of Florida is on the front lines of the fight to stop the disease's upward spiral. Dr. Desmond Schatz — who has overseen pioneering studies in early detection, prevention and treatment of diabetes — is medical director of UF's Diabetes Center.

"We're at the forefront of the action," he says, citing the widespread recognition of UF's accomplishments in the field of diabetes research from organizations such as The Juvenile Diabetes Research Foundation, the National Institutes of Health and the American Diabetes Association. "We've contributed a lot to the understanding of the mechanisms leading to diabetes and the genetics of the disease, as well as prevention and treatment."

It's not easy for the kids with diabetes, who often go through their daily lives feeling different, set apart by their disease. Not at Florida Diabetes Camp, however, where they're just like everyone else.

Dr. Janet Silverstein, chief of pediatric endocrinology at the University of Florida's College of Medicine, has volunteered at the camps since 1979, first as a camp physician, and then as the Gainesville-based organization's medical director in 1989. Each summer, Silverstein packs up and heads to Camp Winona, near DeLeon Springs, Fla., where campers gather.

"Camp for me," she says, "is the most rewarding thing I do."

UF campus researchers continue to take the fight against diabetes to the next level. In fact, within 15 years, UF's doctors and researchers could close in on biological markers to track the disease's progression. Schatz hopes to include more researchers, health-care professionals and patients in UF's efforts, and he's optimistic that new treatment and prevention strategies — including gene and stem-cell therapy — will help turn the tide.





## Florida Tomorrow is a belief ... that through creative and collaborative science we will alleviate pain and suffering caused by today's most devastating diseases.

### Advancing Cancer Research

University of Florida cancer specialists have been at the forefront of the fight against cancer for decades. A team of more than 330 clinicians and scientists and hundreds of research assistants, nurses, technicians and staff are each committed to advancing the science and treatment of cancer. UF's leadership has resulted in an investment of more than \$600 million in cancer programs over the past decade. Since 1999, the university has recruited 71 new faculty members specializing in cancer.

In 1998, a \$10 million endowment created through a \$5 million milestone donation by cancer survivors Jerry and Judith Davis of Jacksonville and a \$5 million state match advanced UF's effort. Endowments provide the essential seed money for innovative research in cancer therapies. UF's multi-disciplinary approach encourages the surgeon, the radiation oncologist, the medical oncologist and the basic scientist, and their colleagues to work together as a team focusing on the well-being of the patient.

The University of Florida Shands Cancer Center is the ideal setting for the caliber of translational research that will generate life-saving advances in cancer care. The center is located at the most comprehensive academic health center in the Southeast. The quality and breadth of cancer specialists, scientists and health-care workers on both campuses — Gainesville and Jacksonville — is unprecedented. It is no longer a question of whether doctors will conquer cancer, but when and how rapidly.



Private support advances the quality of research, the excellence of teaching and the finest patient care. Increasing levels of support will enable our medical school to continue to attract the best medical faculty and to equip them with the most sophisticated technology, thereby setting the standard for medical schools in the nation.

The **Campaign for Medicine** provides an opportunity to generously invest in the future of medicine at the University of Florida. Your philanthropic investment will make all the difference in our ability to continue to serve, care and lead. Join us in creating a legacy that will stretch far beyond our lifetimes through the work of generations of doctors, scientists and physician assistants trained here every year. Your support for scholarships, research funds, professorships and a new education building will impact thousands of patients and families for decades to come.

## Our Vision of Tomorrow

The University of Florida's College of Medicine is a place where research flourishes, new generations of physicians master the art and science of medicine, and patients benefit from the most advanced technology and compassionate care available today.

A tradition of excellence in medicine was established during our first 50 years (1956-2006). It is our privilege to build on that foundation of excellence as we strive to realize our full capability as one of the nation's leading academic medical centers. Now, more than at any moment in our history, we have the opportunity to accelerate the translation of discoveries made in our laboratories into better treatments for our patients and possible cures for tomorrow's menacing diseases.

Our researchers are exploring the secrets of cancer, diabetes, blindness and heart disease, developing better diagnostics and treatments at an extraordinary pace. Our professors are mentoring and preparing our medical students — some of the most

talented and brightest in the nation — to serve as leaders in their profession and to serve their communities as highly skilled physicians. Our patients come from every county in Florida, as well as from other states, regions and countries, in order to receive the most advanced medical care available from UF physicians in Gainesville and Jacksonville.

With your help, the possibilities of successfully preventing, treating and in some cases curing diseases are limitless. Please join us by becoming a partner during this important time of discovery as we face the challenges and opportunities tomorrow will bring. Traditional sources of support for academic medicine from clinical activity, research grants and state funding continue to shrink at an alarming rate. Private support has become an essential ingredient to achieving excellence in academic medicine. In fact, there is a direct correlation between an institution's level of private support and what can be accomplished.





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