



## THE POWER OF TOGETHER

UF Health Strategic Plan 2015 – 2020

May 20, 2015

*Forward Together* was the first strategic plan for UF Health, the University of Florida's academic health center. Published on May 20, 2010, *Forward Together* has served as our roadmap in serving the education, research and service missions of the University of Florida.

The fundamental idea was that great things would happen if faculty, staff, hospital administration and UF leadership came together to work collaboratively with a commitment to excellence. It worked.

- Our patients and our community became the center of all we do.
- "We and they" became "us."
- The quality of patient care markedly improved.
- Growth in clinical volumes and financial performance followed, allowing us to invest in the research efforts of new and existing faculty.
- Consequently, National Institutes of Health funding grew substantially despite a flat NIH budget nationally.
- Curricular innovations have occurred or are planned in each college.
- New buildings for patient care, research and education have been completed or are under construction with funds that have been internally generated.

And all of this success and excitement have attracted philanthropic support, superb students and highly accomplished new faculty, spurring continued momentum in patient care, research and education.

Building on *Forward Together*, we now embark on UF Health's second five-year strategic plan, which is occurring at an historic time for UF as a whole, given the state's significant new investments in the University of Florida. In its 2013 session, the Florida Legislature designated UF a "preeminent university," recognizing its exceptional record and its capabilities to foster innovation, economic development and job creation. Accordingly, the Legislature appropriated funds to UF under the "Preeminence Initiative" and subsequently made additional commitments to UF Health to advance cancer research.

Countervailing forces, however, are often present. Our hospitals and faculty at both the Gainesville and Jacksonville campuses provide a large amount of health care to those

with significant medical needs but limited financial resources. We receive essentially no reimbursement for this care in patients who are uninsured, and only partial payment for those who are eligible for Medicaid. While we have received safety-net funding for some of these unreimbursed expenses in the past, there is always uncertainty about the continuation of such funding from year to year. Moreover, there will likely be downward pressure on research grants and contracts, Medicare reimbursement and GME funding. Our plan must incorporate strategies that provide resilience against these financial pressures so that the model is sustainable.

Work on *The Power of Together* began in January 2014. This document reflects the input of hundreds of faculty members, staff and students. A description of the process by which the plan was created, and a list of participants, is contained in the Appendix.

## **THE POWER OF TOGETHER: A PARADIGM FOR PREEMINENCE**

The UF Preeminence Initiative focuses strongly on research preeminence and the recruitment of accomplished investigators and scholars. But it also includes programs that will foster preeminence in education through innovations in online degree programs and in core curricular requirements for undergraduates. “Preeminence” can mean many things, but in the context of the UF-wide preeminence initiatives, it has come to mean reputational stature and distinction among our peers. To reach UF’s goal of becoming a top-10 public university implies increased stature and distinction in all of UF’s missions, not just research.

How do we get there? The answer is at the core of UF Health’s strategic plan for the next five years: We get there by harnessing the “Power of Together.” That is, by coordinating our UF Health faculty, staff, students and administrators as a functionally integrated team — across all colleges, campuses, research institutes and hospitals — we create a positive feedback loop among our missions that expands the scale, scope and stature of UF Health. Thus, *The Power of Together* strategic plan builds on the momentum created in *Forward Together*. This momentum is captured in a paradigm, described below, that diagrams the positive feedback loop among missions.

According to the Merriam-Webster dictionary, a “paradigm” is “a model or pattern for something that may be copied.” It comes from the Greek noun παράδειγμα (*paradeigma*), which means a “pattern” or “example.” In his book *The Structure of Scientific Revolutions*, Thomas Kuhn gave “paradigm” another meaning when he used the word to refer to a coherent set of theories and practices that define a scientific discipline at any particular time, and that are well-accepted by the scientific community. Thus, Merriam-Webster includes a second definition of paradigm: “a theory or a group of ideas about how something should be done, made or thought about.”

Let’s consider how the term “paradigm” might apply to UF Health. Is there a model for academic health centers that has been copied successfully? Is there a well-accepted and coherent set of theories and practices employed by successful academic health centers? We would answer “yes” to both questions. Shown in Figure 1 is a diagram of

what we believe to be the paradigm followed in the past several decades by the most successful academic health centers; it will be our roadmap for the next five years.

As Figure 1 indicates, our ultimate goal is to improve health. We do this locally and regionally through direct patient care, education and community outreach, and nationally and globally through research. At UF Health, the term “health” encompasses both human and animal health.

Figure 1 conveys that we can achieve this goal of improved health through a virtuous circle in which the size, scope and stature of UF Health expands by way of enhanced patient care, research and education. Beginning with a focus on the quality of patient care, the clinical enterprise not only delivers excellent service directly to the population we serve, but also generates financial and intellectual capital that can be invested in research and education. This process is bolstered by additional investments from private sources (such as philanthropy, research foundations and industry partnerships), and government (such as Florida’s preeminence initiatives and research funding from federal agencies). Success in research and education, in turn, attracts superb faculty who further augment the clinical enterprise, spurring greater investment in research and education. Through many iterations, the size, scope and stature of UF Health expands; ultimately, the momentum created in this process becomes unstoppable.

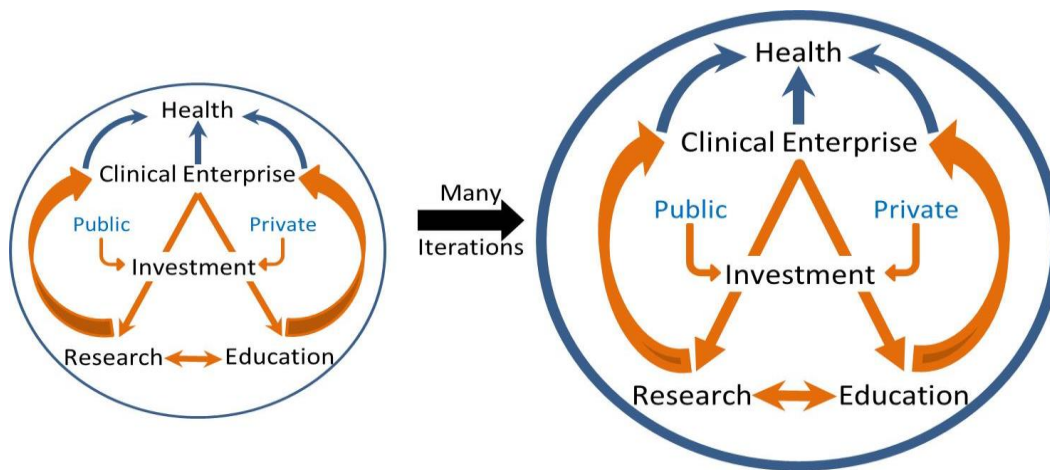


Figure 1. The Power of Together: A Paradigm for Preeminence

As noted, our ability to implement this virtuous circle in the next five years may be adversely affected by countervailing external forces. To the extent that clinical revenues decline due to a combination of external factors, there will be downward pressure on investment in research and education. An important strategic goal is to minimize the impact of these countervailing forces.

## VISION

UF Health is a nationally unique collaboration between the colleges, centers and institutes of the University of Florida Health Science Center and its affiliated hospitals

and campuses. The Power of Together described above is embodied in our vision:  
*Together we strive to create unstoppable momentum toward the goal of improving individual and community health through discovery, clinical and translational science and technology, exceptional education, and patient-centered, innovative, high-quality health care.*

## VALUES

By embracing the importance of collaboration and implementing an integrated strategic plan founded on a shared paradigm and vision, the faculty and staff of UF Health can ensure that all those we touch — our patients, students, collaborators and community — have an exceptional experience. Our core institutional values are shown below in Figure 2. If we don't get this right, nothing else follows. Remaining true to these shared values, centered around the patient and our community, will foster excellence not only in patient care but in research and education.



Figure 2. The Power of Together: Core values centered around our patients and community

## GUIDING PRINCIPLES

During the development of *Forward Together*, and during its implementation over the past five years, a set of guiding principles, as shown in the table below, served as our institutional compass. These principles — thematic, general and mission-based — served as fixed points in a spinning health care and academic world, pulling us consistently toward our purpose and vision, keeping us on track.

All of the guiding principles defined under *Forward Together* still pertain as highly relevant under *The Power of Together*. As UF Health evolves, however, so do our guiding principles. Thus, the theme of *Forward Together* was “getting from ‘we and they’ to ‘us.’” Given the circumstances that existed in 2009, there was a clear imperative to make this the overriding principle of the strategic plan. While some work remains in creating functional integration between UF faculty and hospital leadership,

this has largely been accomplished. Now, in 2015, given the circumstances that exist around the potential benefits of the state-funded UF preeminence programs, there is a clear imperative to make “The Paradigm for Preeminence,” as discussed above, our overriding principle. The table below also points to evolution in our general and mission-based guiding principles, as UF Health has been transformed over the last five years and as we now look forward to the future. While key principles for each mission area are summarized in the table, detailed discussion of mission-based goals follows.

	<u>2010-2015: Forward Together</u>	<u>2015-2020: The Power of Together</u>
Theme	“We and they” become “us”	The paradigm for preeminence
General	Primary mission is to serve UF Use internally generated resources	Primary mission is to serve UF Leverage state resources
Clinical	Quality is Job 1 Faculty ownership of outcomes	Continue to enhance quality while accommodating growth
Research	Reach for excellence Expand clinical and translational research to complement basic science	Leverage preeminence initiatives Collaboration across UF Enhance industry partnerships and technology commercialization
Education	Become national model of inter- professional education (IPE) Update professional curricula	Become national model of IPE Enhance preeminence of graduate education
Community Engagement	Ensure that community health is an integral part of our other missions	Become a trusted and valued partner dedicated to community health improvement

## MISSION-BASED GOALS

Following the above guiding principles and the process described in Appendix 1, we developed overall goals and strategies to implement our vision. Broadly, these goals and strategies will be interwoven with university-wide goals; locally, they will be tailored to fit the needs of each college, center, institute and hospital that comprise UF Health.

### Patient Care

Over the next five years, the overall goal for patient care is to “accommodate growth while continuing to enhance quality and support the academic mission.”

The "Power of Together" begins with the clinical enterprise. Under the UF Health umbrella, there are two campuses — Gainesville and Jacksonville — each with its distinct history, role and strategic focus. UF Health in Gainesville is challenged by a significant safety-net mission, but has benefited from its presence on the main campus of the University of Florida, a strong research infrastructure, and recognition as a

destination clinical center for patients throughout Florida who have needs for highly specialized services. In contrast, UF Health Jacksonville's inner-city location, and the continuing community perception of its role as primarily a trauma center and site for indigent care, has created an environment — with large numbers of acutely ill patients — that can become clinically, financially and emotionally overwhelming. UF Health Jacksonville now looks forward to developing its sparkling new campus serving the North Jacksonville community, and the opportunity to reframe its downtown Jacksonville location so as to continue its safety-net mission in a sustainable manner.

Inpatient volumes are stretching capacity to its limits on both campuses, albeit for different reasons. Equal in importance to the quantitative increase in the number of patients served has been the qualitative improvement in the experience of our patients, and in the engagement of our faculty, students and staff. In active collaboration with UF, the transition to “UF Health” has created a functionally integrated academic health center that generated ownership of the patient care experience and meaningful improvement in patient outcomes. Indeed, a palpable sense of pride and identity with our mission and vision have led to markedly less turnover in faculty and staff.

Significant growth in demand for our patient care services, however, has led to a fundamental question for the clinical mission, which we must address successfully through *The Power of Together*:

*“How can we continue to promote the virtuous circle of growth in volume and stature, and accommodate that growth for several years in a fixed inpatient facility, while continuing to enhance the quality of care that we provide and maintain the support of faculty and staff who are increasingly stressed by increased patient care demands?”*

Continuing to enhance patient satisfaction and the overall quality of patient care services we provide, while accommodating growth in already crowded inpatient facilities, is our key challenge. The two campuses under the UF Health umbrella must tailor their respective clinical implementations of *The Power of Together* according to their own environments. That said, most of the strategic concepts apply to both campuses. Where there are unique plans for one site or another, these will be noted.

Following the process described in the Appendix, 10 patient care subcommittees (whose members are also listed in the Appendix) wrote reports using logic models to address different aspects of the quality-growth challenge. (See Attachment, “Strategic Plan Subcommittee Reports – Patient Care.”) In summary, based on these reports, the impact goals for patient care and the means for their achievement are as follows:

*Goal 1: Deliver exceptional service, value and quality to every patient at every encounter.* UF Health is to be recognized as a national leader in quality, patient safety, hospitality and service by 2020. We will strive to accomplish this goal by continuing to:

- reduce preventable harm by becoming a high-reliability organization;
- reduce variation by standardizing the processes of care through the use of evidence-based practices across the continuum;

- transform ourselves into a team-based, accountable culture;
- increase value by providing care that achieves the best outcomes while reflecting good resource stewardship;
- deliver health care services that are personalized, respectful and compassionate, in settings that are hospitable and inviting, and with care processes that reflect patient-centered values; and
- enhance patient satisfaction by feedback to physicians on individual patient experiences from anonymous survey inquiries benchmarked against local and national metrics

While it is recognized that a variety of metrics exist for measuring progress in individual and overall measures of quality and safety, success in this goal will be measured primarily by the UHC Quality and Accountability scorecard and by the CMS Physician Quality Reporting System.

*Goal 2: Accommodate continued growth in inpatient admissions in hospital facilities that are already at capacity.* In early 2018, the UF Health Neuromedicine Hospital and the UF Health Heart & Vascular Hospital will open on the Gainesville campus, adding 200 beds. In Jacksonville, a 90-bed hospital will open in North Jacksonville in conjunction with our recently opened ambulatory facility. Until then, continued growth in hospital admissions must be accommodated by increased efficiency in the use of existing hospital beds. The goal will be achieved by reducing Emergency Room length of stay, hospital length of stay, avoidable admissions and readmissions. We will strive to accomplish these reductions by implementing programs that:

- provide open access to all services for same- or next-day appointments from the Emergency Room;
- improve education about, and utilization of, community-based ambulatory care;
- improve coordination with long-term acute care facilities and nursing homes;
- improve the timeliness of ancillary and diagnostic service availability and results needed for time-sensitive clinical decisions and hospital discharge;
- increase patient discharges early in the day;
- extend the schedule for staffed operating rooms during weekdays and create schedules for elective cases on Saturdays; and
- expand dedicated observation unit capacity

*Goal 3: Maintain a balanced portfolio of geographic patient demand with a financial mix that ensures sustainable growth.* In a 10-year time frame, the goal for UF Health is to be recognized at the premier academic health center in the Southeast. In the next five years, UF Health will become the clear provider of choice for health care in our primary market, and for selected services in our secondary and tertiary markets. We will achieve this goal by:

- creating necessary infrastructure to ensure patient access, including open-access scheduling and after-hours access for pediatrics, internal medicine, family medicine and orthopedics;
- providing a comprehensive spectrum of primary care services, ranging from walk-in retail service, convenient urgent care and continuity-of-care primary care

- practices distributed throughout the market;
- continuing to build out and upgrade outpatient specialty care facilities;
  - ensuring that the opening of the UF Health Heart & Vascular Hospital and the UF Health Neuromedicine Hospital in 2018, and the upgrading and geo-localization of children's, women's and medical services in UF Health Shands Hospital, creates the "perfect patient experience" across all specialties;
  - expanding GatorCare to become the insurance vehicle for all employees of UF and its affiliates;
  - completing the UF Health North bed tower and becoming recognized as the preferred site of care for North Jacksonville and South Georgia;
  - creating synergies between UF Health and Munroe Regional Medical Center, Orlando Health and other hospital systems that will increase the number of patients from around the state seen by UF Health faculty and admitted to UF Health hospitals;
  - leveraging research and clinical trials at UF Health to develop and deliver innovative methods of care; and
  - expanding educational programs to enhance health care training throughout the state of Florida and improve relationships with community health providers

Goal 4: UF Health will become a high-reliability organization. UF Health will strive to become a high-reliability organization by putting into place consistent processes that ensure the delivery of timely, patient-centered, accurate, error-free and effective care. High reliability establishes the trust that is at the foundation of the relationship between caregivers and patients. The following measures will be taken to foster high reliability:

- Develop interprofessional flight plans for admitted patients;
- Define algorithms for which clinical service team performs which procedure;
- Develop standard operating procedures for all ancillary services;
- Leverage technology to deliver safe, reliable and effective care; and
- Continue to support and extend the culture of reliability across UF Health

Goal 5: UF Health will provide integrated, multidisciplinary team care throughout the patient experience. UF Health aspires to be a premier comprehensive destination that sets the standard for team care. The following measures will be taken:

- Improve patient access to multidisciplinary teams for specified conditions;
- Integrate patient care across the clinical enterprise such that inpatient and outpatient care occurs seamlessly;
- Enhance the use of human navigators and/or electronic tools for navigation;
- Engage patients and their families in their care with meaningful education; and
- Foster opportunities for institutional leaders, faculty members and other care providers to periodically sample the patient experience

Goal 6: Establish nationally recognized clinical programs. UF Health already has a number of clinical programs that enjoy regional and national reputation, but there is opportunity to recruit high-profile individuals in targeted areas that would either augment current programs or establish specialized services not otherwise available in



the state and region. Thus, our plan over the next five years is to recruit clinicians and build clinical teams that will bring the same level of national recognition as scientists recruited under the UF preeminence initiatives.

*Goal 7: Innovation in the delivery and support of health-related information technology that facilitates the above patient care goals.* UF Health will provide IT services that will facilitate streamlined, excellent patient care through intuitive and effective practices for patients and caregivers. This will be accomplished as follows:

- Enable patients to be active partners in creating, understanding and managing their health care;
- Improve communication, collaboration and connections between patients, families, faculty and other caregivers, external providers and insurers;
- Optimize and innovate tools and workflows to create an agile workforce;
- Create seamless experience for patients, from initial appointment through discharge and health care in the home and the community; and
- Enable clinical research through use of the electronic health record and integrated data repository to increase the speed the discovery and more quickly deliver effective care solutions to our patients

*Goal 8: Provide ready access to synthesized information, powerful analytic tools and robust information architecture to facilitate the above patient care goals.* The overall vision for data analytics at UF Health is to transform data into information, information into knowledge, and knowledge into wisdom to support outstanding patient care, research and education. This vision will be accomplished by achieving goals in:

- Governance — ensure that all electronic technology system implementation and additions to existing data streams are accurate, sustainable and compatible with an overarching data governance plan;
- Harmonization — Data from a continuum of sources are aggregated, harmonized and transformed; through documentation and development of ontologies, data are organized to be available, transparent and searchable;
- Tools — Analytic needs are identified, tools are developed, staff is trained and results are available and actionable in support of clinical care, research and operations;
- Communication — Through a flexible and responsive data, analysis and communication infrastructure, cross-disciplinary and inter-institutional teams are enabled to undertake patient care quality and research initiatives; and
- Sustainability — Resources are allocated rationally in support of governance and user support, assuring that the models developed are scalable and sustainable

## **Research**

Over the next five years, the overall goal for research is to build on the substantial momentum created under *Forward Together*, now further enhanced by state of Florida funding of UF Preeminence initiatives, to become top-10 programs in at least 10 additional scientific fields of biomedical and population science.

The University of Florida has been identified by the state of Florida as its preeminent university, with a stated goal to become one of the top-10 public universities in the U.S. Of the criteria for this designation, the amount of total and federally supported research support must be expanded in order to be so ranked.

The six colleges of UF's Health Science Center account for over half of UF's sponsored research. Therefore, the HSC must improve its rankings in health-related research for UF to achieve its overall goals. This challenge must be met in the context of extremely challenging environments for external research support. While there is little expectation of any increase in the national research budgets for NIH and for most other federal agencies, research and development funds from industry increasingly favors discovery research in academic settings, with an increased emphasis on applied and small business innovation research. Furthermore, historically significant funding has become available for research within "learning health systems," emphasizing comparative effectiveness research and implementation science.

The number of UF research trainees supported by federally funded training grants is small relative to peer public universities. Research training now is faced with oversupply of many biomedical science disciplines, but there are critical workforce shortages in applied quantitative and qualitative sciences such as bioinformatics, biostatistics, epidemiology, outcomes research and health economics.

UF Health is well-positioned to meet these research challenges and opportunities. New leadership at the UF Health Science Center and its colleges, departments and institutes is now in place. Other UF research partners include the UF Division of Sponsored Programs, UF research regulatory offices (e.g., IRB, IACUC, OTT), and collaborative research programs in other UF colleges with life science programs (IFAS, CLAS, Health and Human Performance, Engineering, Journalism and Communications). The Malcom Randall VA Medical Center remains a major UF research partner. Collaborations have also prospered with several regional research partners, including the Sanford-Burnham Medical Research Institute, Florida State University, the University of Miami and Florida state government. This large research enterprise has generated considerable momentum, with NIH-funded research at HSC colleges overall expanding approximately 33 percent to \$130 million over the past five years based on data from the Blue Ridge Institute for Medical Research, with corresponding improvement in rankings. The College of Medicine had the largest increase in NIH funding, at 46 percent.

Research goals and strategies in *The Power of Together* build on the successes we have achieved under *Forward Together*. The Research Strategic Planning Committee consisted of associate deans for research from the six HSC colleges at UF in Gainesville, the UF College of Medicine – Jacksonville, the Malcom Randall VA Medical Center and the HSC executive vice president for research and education. As part of the needs assessment and fact-finding, seven White Papers were commissioned: Research Space; Research Infrastructure; Metrics for Research

Productivity; Research Training; Public-Private Partnerships; Multi-campus Research Programs; and Global/International Research. Each writing group was chaired by an associate dean of one of the six colleges plus UF in Jacksonville and consisted of representatives of all HSC colleges and campuses. In addition, three workshops/retreats were convened by the executive VP for research and education, leading to Workshop Reports: Research Regulation, Research Programs at the UF Research and Academic Center at Lake Nona, and Research Programs at UF Health Jacksonville. Two interactive focus groups were each convened with 10 eminent researchers at UF Health, and an additional focus group was convened with HSC faculty and leadership of the IFAS Cooperative Extension Service. Approximately 115 faculty and staff participated in this research strategic plan.

On the basis of the input from these faculty and white papers, the Research Strategic Planning Committee constructed a Logic Model that identified seven impact goals, as well as the activities, short-term outputs (achieved in 1-3 years) and the longer-term outcomes (achieved in 3-5 years) needed to attain them. White Papers, Workshop Reports and the Research Logic Model are shown in the attachment, "Strategic Plan Subcommittee Reports – Research." Recommended goals and strategies for research are as follows:

*Goal #1. Build on the UF Preeminence and Cancer Preeminence Initiatives to accelerate scientific momentum.* The colleges of the UF Health Science Center have the unprecedented opportunity to hire 60 to 65 highly accomplished scientists through the UF Preeminence and the UF Cancer Preeminence Initiatives, funded by the state of Florida. Approximately 12 of the 26 thematic targets of UF Preeminence involve UF health science colleges, with the hiring of about 40 faculty positions anticipated. UF Preeminence funds are limited to salary and benefits, with start-up funding assistance from the UF Office for Research and the remaining funds from the colleges that will provide the academic home for the faculty member. The UF Cancer Preeminence Initiative is a contract between the state of Florida and UF Health Shands Hospital to enable UF Health to attain National Cancer Institute designation by 2019. The hiring of 20 to 25 well-established cancer researchers is anticipated, across Gainesville, Jacksonville and Orlando, as well as the use of these funds for space, equipment, support staff and educational programs.

The addition of 60 to 65 senior investigators and new laboratories at UF Health will no doubt accelerate our scientific momentum, but the vision of their impact is much broader. In particular, selection of faculty for the preeminence initiatives has taken into account their impact on the productivity of current UF faculty through collaboration, synergy and the building of "critical masses" of investigators in specific fields. The goal is to establish collaborations with existing faculty members to compete successfully for program projects, center grants and training grants. Such clusters of research will also enhance clinical training in related fields and promote the development of new clinical services.

Goal #2. Enhance research infrastructure to match an expanding research enterprise.

As we expand the research enterprise across UF, including UF Health, we must enhance research infrastructure proportionately to support the work of new and existing investigators. To ensure that sufficient research infrastructure is available to allow biomedical and population science research to flourish at UF Health, we will use available access to indirect cost recovery funds, other university research resources, hospital transfers and reserves as needed in special situations.

Research Space: Regarding one central component of research infrastructure — research space — our challenge is similar to that in the clinical arena discussed above: How can we accommodate research growth in a fixed research chassis while awaiting new and renovated facilities to come on line? Hiring 60 to 65 new faculty and their laboratory staffs will create huge space demands, at the same time growth is occurring in the research programs of current faculty. The main solution to this problem, as it was during *Forward Together*, is to recognize that research space is not “owned” by an investigator, department or college, but rather by the University of Florida. Thus, under *Forward Together*, we reassigned space that housed inactive or unfunded programs so that funded programs have adequate facilities to maintain or expand productivity.

We will continue to implement this strategy under *The Power of Together*. Toward this end, we have created an inventory of all HSC research space, along with the productivity of the programs occupying it as measured by funding levels and people per unit of space. Using this inventory, we will continue to equilibrate and right-size research space in accordance with one or more of the following parameters, adjusting for the fact that older space is less efficient than newer space: \$300 in total funding per square foot, \$100 in indirect costs per square foot and 150 square feet per person. In addition, laboratory renovations and new research buildings will be needed. These are discussed in the “Facilities” section below.

Animal Care Services: When vivarium facilities were built in the McKnight Brain Institute, Cancer Center and Biomedical Science buildings, it was believed there would be headroom for many years in the future. Now we are almost at the limits of these facilities. As new scientists arrive on campus, we will need to plan, in conjunction with the Division of Sponsored Research, to accommodate growth of Animal Care Services in terms of capacity and staffing.

Information Technology: Additional enhancements will be needed to the scientific IT and data infrastructure needed to support research. To support the growth of existing research activities, as well as to accommodate new research that is about to commence with newly hired scientists under the preeminence initiatives, UF and UF Health requires a forward-thinking, scientist-focused and agile information technology and data environment. UF has an opportunity to engage existing core data services, research groups and partners to establish a center for advanced data capabilities, including:

- data collection from the full range of emerging sources — personal devices, medical records, laboratory and imaging systems, and partner datasets;

- expansion of high-speed research networks and supercomputing;
- Implementation by UF IT of a FISMA computing environment to support grants and contracts with federal and state agencies;
- data standardization for reuse, which includes ontology development and implementation, data mapping, governance and alignment with national standards;
- data enrichment, including natural language processing, geo coding, identity linking, medical record coding and quality assurance processes;
- data tool development, including mobile applications and human factor considerations;
- enhanced data analysis, including statistical methods, data mining, machine learning and visualization; and
- expansion of UF Health’s collaborative i2b2 de-identified data repository and other registries to support UF Health’s research initiatives and enable research collaboration with peer institutions throughout North America

Clinical Studies: Efforts are underway to expand support for multi-site studies, to ensure rapid activation and efficient conduct of high-quality clinical trials for the NIH and other sponsors. In addition, to optimize recruitment and retention of study participants, the CTSI will provide leadership in aligning expertise and integrating resources to blend UF’s extensive data infrastructure for cohort identification, electronic consent and recruitment tracking with participant-centered, customized recruitment and retention approaches for patients, clinicians and other research participants.

Scientific Cores: In conjunction with the UF goal-setting process underway, a strategy for optimizing the balance between the development of on-site equipment and services that constitute scientific cores (now mainly concentrated in the ICBR), and outsourcing such services, will be established.

Regulatory Infrastructure: Another area of critical importance is the regulatory infrastructure that manages and supports UF Health’s scientific programs and research training. A retreat of UF research administrators and UF Health investigators (full report in Appendix III) made recommendations regarding three key issues pertaining to regulatory infrastructure that would have the greatest impact: 1) facilitate regulatory infrastructure processes to enhance efficiency in the use of current research resources; 2) expand regulatory infrastructure in key areas to accommodate current and projected growth in research; and 3) create “surge capacity” to allow brief periods of intense demand to be managed smoothly. Some of the most important recommendations were:

- Efficiency in regulatory infrastructure will be improved by one or more “navigators” to assist new (or even longstanding) faculty with submission and approval of regulatory documents, supported by current programs such as the UF CTSI Service Center;
- Faculty should be incentivized to participate actively in the UF units that govern research regulation;

- Regulatory units should streamline the application process with electronic processes and train new and current faculty and students in their use; and
- Improved technical support for large grant/contract applications should be provided, especially federal contracts requiring both business/administrative and scientific expertise

Global Health: Consideration will be given, in conjunction with UF's International Center, to enhancing the infrastructure that supports international research. Several factors suggest that investment in such infrastructure may yield increased funding in international research. Such factors include the need to "recover" many industry-funded studies that are now being awarded to venues abroad; the increased ability to collaborate-at-a-distance due to IT advances; the continued stream of well-qualified trainee-candidates from abroad; continued funding by the research arms of the U.S. Army and Homeland Security to address the large retinue of diseases that continue to pose threats to the U.S.; and the emergence of large not-for-profit foundations that fund global health research, such as Gates and Ellison. In the report on Global Health Research (see Appendix III), several recommendations are made that will be coordinated with overall UF goal-setting around international research.

Goal #3. Support research and research training programs of existing research faculty at UF Health. During *Forward Together*, a guiding principle for research was to "reach for excellence." Many new faculty members who became part of The Gator Nation during the past five years are preeminent in their fields, joining existing preeminent faculty. Thus, the new UF "preeminence" initiatives will provide a strong boost to a UF Health research community that already has had substantial growth and momentum. To leverage fully these preeminence initiatives, enhanced research infrastructure as described above will be provided to current and new faculty alike so that individual and collaborative research can flourish. Moreover, we will pursue several additional strategies as summarized below and as reported in Appendix III.

- First, it will be important to develop metrics that objectively and fairly assesses research performance across UF Health. These metrics can be drawn from those used by national academic organizations, including measures of research funding, scholarship, entrepreneurship and other qualities. UFIRST will be adopted as dashboard metrics by UF Research Administration. Performance metrics additionally collected will be standardized so that all faculty can participate, and so that results can be readily and promptly analyzed.
- Second, communication can be a barrier to faculty's efforts to collaborate and to take advantage of the enormous resources available across UF Health's campuses. A cross-campus research committee will be convened annually to address barriers and facilitate opportunities across the Gainesville, Orlando/Lake Nona, UF Health at Jacksonville, Alachua/Sid Martin Biotech Incubator, Whitney Laboratory and Malcom Randall VAMC campuses. A VIVO database should include faculty on all these campuses and maintained as a searchable inventory of faculty and their research expertise and interests as the data core for a user-friendly research resource inventory. A "boilerplate" set of

descriptions of UF Health resources will be created and kept up-to-date for use by students, researchers and grant writers.

- Third, all UF Health-related colleges and campuses should be included in research databases and communications. We will explore the feasibility of a UF Health academic calendar to advertise in advance those symposia, visiting speakers and other events that are open to the UF Health research community. These communication resources will ensure that all faculty will have full access to the resources on all UF campuses. This academic calendar would use the capacity of the new UF Health Bridge intranet in its development and rollout.
- Fourth, the problem of an increasingly limited pool of external research funds can be mitigated by wise investment in the scientific programs of existing faculty members. An annual assessment of faculty needs should be carried out across colleges to identify intercollege opportunities for research sharing. Bridge grants (i.e., funding investigators with applications for renewal of research grants that have received promising, but non-funded scores) will ensure high-quality research programs will not close without every effort to refund them. Similarly, research grant applications without pilot data have little chance of funding in these constrained times. An increase in pilot study funding would allow existing faculty to develop new directions in their research. We will strive to identify sources of funding to expand bridge and pilot studies by 20 percent.

*Goal #4: Attract well-prepared and highly motivated graduate students and chart new pathways for developing the translational workforce.* This goal overlaps with the strategic plan for education, but the mission of training future scientific leaders is inseparable from our research goals, as many laboratory programs depend on pre- and postdoctoral trainees to carry out the work for which they receive external funding.

Our first aim under this goal is to increase the competitiveness and performance of UF Health's graduate education programs, so as to attract the best doctoral students to UF for training in biomedical and population science. We will accomplish this goal by enhancing the admissions process and curriculum to encourage early engagement between research faculty and graduate students, and by incentivizing faculty to write more training grants to support this activity. The UF Health-related colleges in aggregate have a low number of training grants in comparison with peer public universities. Our goal is to double the number of institutional and individual training grants by 2020. We will work with UF to create policies that:

- incentivize the writing of training grants and provide institutional support to enhance their competitiveness;
- reduce existing disincentives for individual faculty to train graduate students;
- standardize eRVUs to support the effort of training directors;
- assist in the educational design and evaluation of training; and
- establish a centralized tracking system of training grant graduates' performance and career trajectories

At the same time, workforce shortages do not necessarily stimulate the creation of training programs tailored to correct the shortages. Indeed, long-standing programs

funded by NIH continue to train researchers for fields with a significant over-supply of well-trained scientists. Thus, a second aim under this goal is that our Ph.D. training programs chart new pathways for developing the translational workforce. That is, they should be sufficiently innovative, broad and flexible such that our graduates will follow paths in both academic and non-academic careers (e.g., large industry, entrepreneurship, government/regulatory, not-for-profit, education). Initial plans toward this goal include:

- providing translational science training as a hub at UF, leading professional development, mentor development and educational development in support of all T and K training programs;
- convening high-level, cross-college working groups to improve workforce diversity and academic recognition of team science; and
- developing new opportunities in the CTSA network, including CTSA KL2 and TL1 externships, and national communities of early-career translational researchers and dual-degree candidates from dentistry, nursing, occupational/physical therapy, pharmacy, public health, and veterinary medicine

*Goal #5: UF Health will become a leading Learning Health System.* It has been argued that achieving higher-quality care at lower cost will require health system feedback loops that ensure continuous "learning," as the lessons from research and care experiences are systematically captured, assessed and translated back into improved health care. In this context, the Institute of Medicine convened a Committee on the Learning Health Care System in America. The product of the committee's work, *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America*, makes the case that emerging tools such as medical informatics, connectivity, team-based care and systems engineering techniques make the envisioned transition to a "continuously learning health system" possible, and are already being put to successful use in pioneering health care organizations.

During *Forward Together*, under the leadership of David Nelson, M.D., the CTSI developed several AAMC award-winning initiatives that laid the groundwork for a cohesive learning health system. These included Consent2Share, which allows all eligible UF Health patients the opportunity to consent to be contacted about research studies for which they might be eligible; our integrated data repository, a large-scale database that collects and organizes information from across the academic health center, including the electronic health record system, to support improved care and research; and the CTSI Biorepository, which provides a centralized, large-scale, cost-efficient system for obtaining and storing tissues and other biospecimens, and for ensuring that accurate information about the tissues can be provided to researchers in accordance with approved protocols.

UF Health can be proud to be among the pioneering health care systems that are well on their way to learn from our patients in a manner that will that improve their health care and lower cost. During the next five years under *The Power of Together* and with continued leadership from the CTSI, we will embed translational science throughout our learning health system to support a continuous cycle of inquiry, innovation and



implementation in several ways:

- Increase the use of structured data in our ambulatory practices, thus providing standardized data elements to improve care and research
- Develop advanced data capabilities and cultivate innovative methods and technologies. This will include phenotyping algorithms and natural language processing for the IDR, and continued development of the open source REDCap Electronic Data Importer, or RED-I, software created at UF, which will facilitate the movement of data elements from electronic health records to case-report forms
- Expand high-impact pilot programs to transform discovery and the translation of research to diverse health care settings. This will include the creation of a knowledge base that provides semantic-based representation and searching of UF Health quality improvement projects and translational pilot studies, thus recording all steps and artifacts of the work that enables a continuously learning health system.
- Continue to pioneer the clinical implementation of molecular medicine with an emphasis on genomics and metabolomics
- Develop an outstanding environment for work at the intersection of research and patient care by prioritizing and developing:
  - 1) opportunities for faculty and community clinicians to engage on a regular basis with informaticians and statisticians in research discussions, leading to projects of interest;
  - 2) a new journal club for clinicians interested in integrating research skills into clinical practice, with a focus on study design, measurement and other methodological fundamentals necessary for partnering on translational projects; and
  - 3) longitudinal planning for new tenure-track clinical faculty to participate in established research programs and to gain familiarity with local research requirements and regulatory practices

To add to the positive feedback loop of our learning health system, research training programs at the master's and doctoral levels will be fostered in the areas of health informatics, comparative effectiveness research and implementation science. These efforts should reach a 20% growth per year in research funding for patient-centered outcomes research and implementation science, as well as in peer-reviewed publication and other measures of scholarship.

Additional clinical research space will likely need to be identified for these efforts, as listed in the "Facilities" section below, to house faculty and staff for these burgeoning and related fields of population sciences and informatics.

Goal # 6: Transfer of discovery and technology into commercial application. Many corporate and small business entities look to partnerships with academia as a more attractive opportunity than ever before. The federal funding for Small Business Innovation Research is at an all-time high (\$2.5 billion/year) and for the right situation serves not only to move a discovery or technology toward practical application, but also

provide funds for research needed to advance the science. In step with the growing UF Health research base, a robust biotech industry has been established in the Gainesville/Alachua region. Emerging bioscience companies, most with UF technology or ties to UF, have led this growth. Several specialized UF entities providing infrastructure for these companies are located in or near Alachua's Progress Park, including the Sid Martin Biotechnology Incubators, Florida Biologix and Biotility.

Current opportunities for entrepreneurship and public-private partnerships will be assessed for each college, institute and department. The addition of industry and representatives on HSC research advisory boards will be encouraged. We will strive to revise the promotion-and-tenure language in health science colleges such that faculty can receive credit for successful entrepreneurial and collaborative activities, thereby incenting these activities. We will explore the feasibility of one or more multi-use facilities for UF public-private partnerships, accessible to UF Health researchers on the Gainesville, Jacksonville and Orlando (Lake Nona) campuses. We anticipate that these efforts will expand the number of public-private partnerships by two additional funded awards per year as well as growth by one to two per year in the licenses filed for UF Health intellectual property. The role of UF Health as the hub for the One Florida Research Consortium should be a win-win opportunity for both UF and its private sector stakeholders.

*Goal # 7: The One Florida Clinical Research Consortium will engage stakeholders throughout Florida to create a statewide system through which research results and clinical data are translated back into diverse health care delivery settings to improve health, health care and health policy for Floridians.* Although Florida is the third most populous state in the nation, its level of research and research training is far below its ranking by population size. As the preeminent academic institution in Florida and as a land-grant institution, UF has an opportunity and responsibility to expand statewide collaborations and opportunities to advance a research agenda that reflects the health priorities and diversity of Florida's 19.9 million people.

Toward this end, the OneFlorida Clinical Research Consortium is being developed under the leadership of the UF CTSI in collaboration with Florida State University, the University of Miami and other partners throughout the state. OneFlorida is creating an enduring research infrastructure that will allow researchers, clinicians, patients and stakeholders to join forces to address some of Florida's biggest health challenges. Key areas of focus in developing the OneFlorida network during the next five years include:

- Assess top health concerns and research interests of community-based clinicians participating in OneFlorida to inform ongoing and future research;
- Expand the capacity of clinicians and patients in community-based health care settings to participate in multi-site studies through training and education programs, Consent2Share expansion and honest broker processes;
- Expand the OneFlorida Data Trust to include Medicare data and limited data sets from clinical partners, an i2b2 query interface and a data observatory;
- Implement electronic patient-reported outcomes as well as a common vocabulary and ontology around specific patient populations;

- Partnership with the Florida Cooperative Extension Service in IFAS for opportunities with the 67 extension offices throughout Florida.
- Develop research alliances focused on cancer, oral health, cardiovascular health and children's health; and
- Continue to develop comparative effectiveness research, pragmatic clinical trials and implementation science studies throughout the state

## Education

Over the next five years, the overall goal for education is: “UF Health professional and academic programs will produce graduates who excel and lead in clinical care, science, teaching and community health.”

As the health sector workforce continues to expand, shortages in several health professions are becoming apparent. The health care sector is also changing, with new skills required in health professionals, and accrediting bodies making new requirements for training in team learning, professionalism and evidence-based practice. Both research and clinical care missions at UF Health have maintained high rates of growth and will need a stable supply of well-trained health professionals and scientists.

The UF Health Science Center and its colleges and research institutes are strongly positioned to meet these challenges and opportunities. The six HSC colleges have professional and graduate education programs located on the Gainesville, Jacksonville and Orlando (UF Health Cancer Center – Orlando Health, UF Research and Academic Center at Lake Nona) campuses, Malcom Randall VA Medical Center, numerous outpatient clinics and other regional education partners. The Office for Interprofessional Education has a proud tradition of 16+ years of nationally recognized education involving virtually all the professional education programs at UF Health. The George T. Harrell, M.D., Medical Education Building opening in 2015 embodies the UF Health's commitment to professional education of the highest order. In addition to a core of excellent graduate faculty, the influx of 60 to 65 senior investigators provides many opportunities to enhance the quantity and quality of graduate and postgraduate research training.

The 2015-2020 Education Strategic Plan builds on the *Forward Together* plan of 2010-2015. *Forward Together* focused on updating the traditional curricula in the professional schools to include more integration of basic science and clinical education throughout the educational program, and more small-group learning, simulation and interprofessional education. While much work remains in these areas, which will continue to be at the core of the education mission in the HSC colleges, work in the past five years has established the roadmap and infrastructure. During the next five years, in addition to continuing these efforts in professional education, a new area of focus will be graduate education, especially Ph.D. training.

The Education Strategic Planning Committee consisted of the associate deans for education for the six HSC colleges and the executive vice president for research and education. As part of needs assessment and fact finding, they commissioned six White Papers: Marketing of Graduate Programs; Educational Technologies; Mentoring and Career Development; Leadership; Interprofessional Education; and Diversity. The writing group for each White Paper was chaired by an associate dean from one of the six colleges or a designee and consisted of representatives from all UF Health-related colleges and campuses, education administrators and students/trainees. A total of 78 faculty, staff and students participated.

On the basis of input from these faculty and white papers, the Education Strategic Planning Committee constructed a Logic Model that identified six impact goals, as well as the activities, short-term outputs (achieved in 1-3 years) and the longer-term outcomes (achieved in 3-5 years) needed to attain them. The White Papers and Logic Model are shown in the attachment, "Strategic Plan Subcommittee Reports – Education." Recommended goals and strategies for education are as follows:

*Goal #1. Train leaders of the future in science, the health professions, education and community service.* To achieve preeminence as a research university and academic health center, we must have excellent research-based graduate education. While we have a number of superb programs, there are many areas of opportunity.

With notable exceptions, UF graduate and postgraduate programs have not achieved high rankings compared with peer U.S. universities. In comparison to UF's overall reputation, we lag in peer assessment of our graduate and postgraduate programs. Federally funded research training grants are awarded to UF much less frequently than the current top 10 public universities. Highly qualified and diverse students in UF's undergraduate and professional education programs are infrequently choosing to continue their graduate and postgraduate training at Health Science Center programs.

To address these issues, we will focus on three strategic areas during the next five years: students interested in health science careers, UF HSC faculty and UF HSC training programs. Recruitment and retention of the highest-quality student body will benefit from enhanced procedures and incentives to enroll students in graduate programs. This will include:

- Coordination of new media to advertise UF professional and academic training programs to diverse undergraduate students at UF, across Florida and nationally;
- Increased quantity and quality of exposure to health science graduate and combined-degree programs by UF undergraduates, through the UF Honors Program, 3/2 programs and broad marketing to the UF student body;
- Creation of a database of applicants and matriculates to HSC educational programs to guide and redirect recruitment efforts across time; and
- Creation of a database that tracks the careers of those who complete their graduate education at HSC programs: postgraduate training, professional and scientific positions, and leadership positions

UF HSC faculty can be better supported in their teaching and mentoring efforts. The 60 to 65 faculty recruited by the preeminence initiatives will be encouraged to take leadership roles in graduate and professional curricula and research training programs, including those that could lead to additional federal training awards. An educational development group will be formed to enhance educational skills of UF faculty. All advisors and mentors of students in academic degree programs, postdoctoral fellowships and career development programs will be encouraged to use academic (or “individual”) development plans to ensure that expectations of mentors and mentees are shared. Mentors should receive evaluation and constructive feedback from mentees.

Consideration will be given to expansion of the HSC Interdisciplinary Program for graduate education to the colleges of Dentistry, Pharmacy and Veterinary Medicine, which now have separate Ph.D. programs in various areas of biomedical science. Consideration will also be given to creation of a second “IDP” focused on population and data science, including Ph.D. programs in biostatistics, epidemiology, informatics, health services research and outcomes and implementation science. In both cases, there would be a core curriculum serving doctoral students in the biomedical and population sciences, respectively, and then specific areas of specialization for the Ph.D. degree. The potential for prospective graduate students to work with exceptional faculty at UF HSC colleges will be marketed in a more focused manner with undergraduate college offices nationally and through social media. Reports from both of these IDP groups are included in Appendix V.

*Goal #2. UF Health Science Center is an inclusive learning community.* The diversity in students and faculty varies across health science colleges and programs, with diversity extending beyond gender, age, race and ethnicity to include disability, economic disadvantage, gender identify and other background characteristics. Leaders in each college responsible for diversity and inclusion will improve diversity across the academic health center by:

- supporting and expanding pipeline programs in Florida that ensure the pool of students from underrepresented groups;
- encouraging thesis advisors and mentorship committees to provide opportunities for student interactions with diverse faculty members; and
- enhancing marketing efforts designed to recruit professional and graduate students from diverse backgrounds

*Goal #3. UF Health interprofessional and team learning programs are nationally recognized for excellence and innovation.* To achieve this goal, HSC education leadership will ensure that:

- All HSC pre-and postgraduate professional students will have access to learning opportunities in professionalism, communication, interpersonal skills, patient safety, team building, U.S. health systems, evidence-based practices and clinical informatics;

- All HSC academic students should have access to team building, leadership mentor development, research informatics, preparation of grant applications and regulation of research/technology;
- Experiential learning experiences for students in all HSC professional education programs will be expanded to later years of their curricula and to postgraduate training; and
- Thesis committees, postdoctoral supervision and career development programs will include faculty from multiple disciplines

**Goal #4. Professionals and scientists training at UF HSC are prepared for a**

**technology-facilitated career.** The George T. Harrell, M.D., Medical Education Building will provide a major opportunity to improve the technological knowledge and skills of UF HSC students and faculty. Experiential learning can be coordinated to allow novel interprofessional education programs for HSC students from two or more colleges. Other advanced technologies will also play significant roles in HSC educational programs. A learning management system can be implemented with an educational data warehouse. Instruction modules should be expanded through the Office on Distance Education to enhance flexibility of curricula and improve access to additional trainees at campuses in Jacksonville, Orlando or other partnering institutions.

**Goal #5. UF Health Science Center graduates are prepared for a broad range of**

**science careers.** Planning for careers in professional and scientific fields should recognize the evolution of the workforce and the opportunities created. Within health care or science, traditional academic positions are limited and may be replaced by new opportunities in industry, government and community health. Tracking systems to assess career outcomes and satisfaction among UF HSC graduates will be implemented to inform training programs of programmatic success or need for revision. Training opportunities will include exposure to large industry environments, as well as small industry/entrepreneurism, government and regulatory science, education, community health or nongovernmental organizations. A goal for doctoral and postdoctoral training programs should be at least 90% of graduates continuing to work in science five years after graduation. That said, it is expected that up to one-half of these graduates will work in science careers outside of academia.

## **Community Engagement**

The 2010-2015 Strategic Plan emphasized that community health is an integral part of each of our other missions. Over the next five years, the overall goal for community engagement is: “UF research, education and patient care programs will improve the overall health and quality of life through engagement of people and communities throughout the region.”

UF Health uses the NIH’s broad definition of community: “target populations that may be defined by: geography; race; ethnicity; gender; sexual orientation; disability; illness or other health conditions; or to groups that have a common interest or course, such as health or service agencies and organizations, health care or public health practitioners

or providers, policy makers or lay public groups with public health concerns.” UF Health’s commitment to community engagement recognizes that the care of individual patients, the education of scientists and health professionals, and basic and clinical research are necessary but not sufficient to address many of the health needs of the North Central Florida and Southern Georgia communities.

UF Health and its associated colleges have enjoyed a strong tradition of community engagement and service. As the preeminent academic institution in the state of Florida, UF and UF Health have long accepted the responsibility for the health of Florida’s communities. The UF Cooperative Extension Service, for example, has an office and community advisory committee in each of Florida’s 67 counties. UF Health provides direct care for patients of all these counties. UF Health also provides many innovative health education programs. Community engagement has been the cornerstone of the 16-year-old Interdisciplinary Family Health Program in which the educational goal of interprofessional education is carried out while teams of first-year health professions students from all UF Health-related colleges help local families achieve better health.

The UF Clinical and Translational Science Award Program has engaged communities during its six years of operation in its governance, needs assessments and training. It has also involved community members in research, planning, pilot projects, assistance in recruitment of participants in research studies, research workforce development, and dissemination of research results. HealthStreet is an example of UF Health engaging the Gainesville and Jacksonville communities to provide services such as referrals for health care and social services, as well as health screenings, while participating in research studies.

A number of UF programs assist local residents to obtain access to services. As an example, the Equal Access Clinical Network is a family of student-run free health care clinics which is the oldest, continuously functioning, largest and most comprehensive student-run clinic in the U.S. for the last 22 years. It is one of a number of “safety net” clinics serving Alachua County’s disadvantaged communities. Another example is the UF College of Medicine Mobile Outreach clinics, an award-winning free clinic on wheels delivering primary care and social services to people from at-risk neighborhoods who are traditionally hard-to-reach.

The 2015-2020 Community Engagement Strategic Plan builds on the 2010-2015 plan. A Community Engagement Writing Group consisting of 12 faculty members, administrators and senior staff from the UF HSC and the IFAS Cooperative Extension Service was convened by the HSC executive vice president for research and education. Five impact goals were identified. These are described in the Attachment, “Strategic Plan Subcommittee Reports – Community Engagement,” and summarized below:

*Goal #1. Ensure access to health care through collaboration between community-based organizations and UF Health.* A large number of organizations in Alachua County provide citizens underrepresented in health care with a “safety net” of primary

care and social services. The Safety Net Consortium and its individual members, however, often do not interact with the clinical programs of UF Health. When such interactions do occur, the effort to address preventive and acute care needs of the underserved is often not well-coordinated. Communication, referral and continuity-of-care responsibilities have been uneven in quantity and quality.

There is a growing appreciation of community-based opportunities to address important issues in health care quality and safety, such as readmission rates of patients hospitalized at UF Health. Under the appropriate theme of *The Power of Together*, UF Health will work with the consortium of safety net providers in Alachua County to improve coordination, quality and health outcomes.

Goal #2. Build and sustain the reputation of UF Health as a trusted and valued partner dedicated to community health improvement. UF Health media and public relations programs serve as the “front door of UF Health,” informing UF and the North Central Florida communities (and beyond) of developments in research, education and patient care. In 2015-2020, these efforts can expand along the dimensions of the 2015-2020 Research Strategic Plan: new research programs brought to UF by existing and newly recruited research faculty; commercialization and jobs creation from UF research; novel programs to train research leaders; the molding of UF Health as a “Learning Health System”; and efforts to lead statewide and national research programs through the One Florida Clinical Research Network.

Additional media exposure will emphasize the leading role UF Health plays in the education and training of the regional health care workforce and the career development of young health professionals and scientists from diverse backgrounds. Organization of community engagement programs will benefit from the Community Advisory Board of the CTSI, which has grown from a 15-person group of academics and agency providers to a board of 30 community stakeholders representing schools, local businesses, churches and social service groups throughout Florida.

Our Community, Our Health is the centerpiece of the UF CTSI’s community-based dissemination of community health concerns to the research community and to inform future studies. Based on a concept begun at Washington University in 2009, Our Community, Our Health is a platform for open dialogue to help patients and consumers understand health research findings, and to identify community-driven research priorities using community-based participatory research principles.

Goal #3: Assess the health needs of communities we serve. Considerable data are available through state and local governments to identify high-risk communities. The Interdisciplinary Family Health Program also engages about 250 families to learn about their health needs: HealthStreet routinely collects healthcare across information from its community partners. For example, geo-mapping of reported cases of preventable diseases identifies neighborhoods at high risk for many deleterious health behaviors and outcomes. These assessments could be carried out collaboratively with local departments of public health and other governmental agencies. Consistent with the



2010-2015 Forward Together plan, Community Advisory Boards will be convened to identify needs for action by Gainesville and Jacksonville communities, their health systems or a combination of both.

Goal #4. Expand health literacy in the communities served by UF Health. Innovative health education programs targeting high-risk groups will be expanded in Alachua and Duval counties by partnerships with the UF Cooperative Extension Service, the Area Health Education Center, and others. Gainesville programs such as Women's Advantage, Healthy Advantage (for seniors), Mini Medical School for high school teachers, and the UF Health Shands Arts in Medicine Program will be supplemented with new approaches to increase the knowledge and awareness of community residents. In Jacksonville, the church-based Heal Thy People Program, the Healthy Start and Little Miracles Program, and the Trauma Prevention Program will likewise be supplemented. Planned growth will be guided by assessment of community needs and carried out with community advice and participation in all phases of the programs.

Goal #5: Facilitate participation of community-based organizations and individuals in UF Health research and education programs. Current educational programs such as the Interdisciplinary Family Health Program can be expanded to enhance the quality of interprofessional education through community engagement. We will extend this nationally recognized and highly successful program, in which first-year students in our UF Health-related colleges work as a team with specific families in need, to include community health assessment and other interprofessional experiences across the curriculum. Similarly, community participatory research programs such as HealthStreet can be expanded to include rural communities served by the UF Cooperative Extension Service, and other underserved groups. Patient-centered outcomes research and community-based participatory research have received considerable support from the Affordable Care Act and the NIH, providing opportunities for external sponsorship of model programs of community engagement.

## **FACILITIES**

*Forward Together* was developed during the time period of August 2009 – May 2010, when state budgets for higher education were contracting and Florida's funding pool for new building construction was no longer available for new projects. It was recognized, however, that to achieve our goals we would need both new buildings and significant renovation of existing facilities across all mission areas. To the extent that we could generate new and expanded funding streams internally — from increased hospital transfers, philanthropy, indirect cost recovery from research grants and NIH stimulus funding — this was to be the source of revenues for these projects. The guiding principle was to align form and function — to build facilities that were aligned with the clinical, research and education functions they housed.

Because of the success of faculty and staff in implementing *Forward Together* over the past five years, we have indeed been able to generate sufficient resources to engage in a variety of new building projects and renovations that aligned form and function: the

UF Health Shands Children's Hospital, several new facilities for faculty practice primary care and specialty services, the Clinical and Translational Research Building, the George T. Harrell, M.D., Medical Education Building, UF Health North in Jacksonville, and a number of research laboratory renovations to house expanding scientific programs. Over the next five years, several critical projects are anticipated in support of the mission-based goals described for *The Power of Together*. These include:

- The UF Health Heart & Vascular Hospital and the UF Health Neuromedicine Hospital. Ground was broken for this transformative 209-bed, \$415 million project on Jan. 23, 2015. These hospitals will establish facilities for cardiovascular and neuromedicine that set the bar for excellence in patient care experience and outcomes, and complement the geocentric specialty-based services already in place for other specialties.
- UF Health North will add a bed tower of 92 beds to its campus in North Jacksonville, utilizing the infrastructure for emergency services, operating rooms, imaging and laboratory services already in place.
- A new research building focused on research in health outcomes and data science will be needed to house expanding programs that have already outgrown their existing space.
- Plans have been developed for a 70,000-square-foot expansion of the College of Dentistry that would address urgent needs in education, faculty practice and research.
- A new facility housing the faculty practice activities for ophthalmology, otolaryngology and expanded orthopedics will be built in juxtaposition to the UF Health Orthopedics and Sports Medicine Institute along Northwest 34th Street.
- Because of the increased number of faculty who have been hired over the past five years, there is already a shortage of offices, especially for those involved in graduate and graduate medical education. This situation will become more problematic as new faculty are recruited. A new graduate education building to house these faculty and their programs will be needed.

## **CONCLUDING COMMENTS**

Over the past five years, *Forward Together* has created functional integration between the faculty and hospitals of UF Health, which has propelled us forward in serving the missions of the University of Florida. During the next five years, *The Power of Together* will harness this momentum and propel us toward preeminence according to a paradigm that creates a virtuous expanding circle of patient care, research and education.

Our goals are to use the power of our functionally integrated academic health center to improve health through direct patient care, the generation of knowledge that enhances prevention, diagnosis and treatment of disease, and training the next generation of health professionals and scientists who will be leaders in their fields.

## Appendix

Work on *The Power of Together* began in January 2014 and reflects the input of hundreds of faculty members, staff and students. The Strategic Planning Task Force, listed below, met quarterly, with subcommittees of faculty and staff in Gainesville and Jacksonville convening between Task Force meetings. Preliminary recommendations regarding *The Power of Together* was presented to the UF provost and academic deans on March 10, 2015, the UF Health Strategic Cabinet on March 21, the UF Health Jacksonville Board on March 23, and the UF Health Shands Hospital Board on April 7, 2015. Valuable input from all these groups was incorporated into the final document.

### **Strategic Planning Advisory Group Members**

Russell Armistead	David Guzick	Paul Okunieff
Tetsuo Ashizawa	Laura Huntley	Marco Pahor
Patrick Concannon	Ed Jimenez	Thomas Pearson
Marvin Dewar	Julie Johnson	Michael Perri
Wanda English	Jim Kelly	Boyd Robinson
Timothy Flynn	Mary Ann Kiely	James Roberts
Isabel Garcia	James Lloyd	Bill Robinson
Mike Gleason	Anna McDaniel	Melanie Fridl Ross
Timothy Goldfarb	Glenn Morris	Daniel Wilson
Michael Good	David Nelson	

The overall planning process was led by David S. Guzick, M.D., Ph.D., senior vice president for health affairs and president of UF Health. Thomas A. Pearson, M.D., M.P.H., Ph.D., executive vice president for research and education, Health Science Center, was responsible for leading the research, education and community engagement components. Laura Huntley, HSC vice president for administration, staffed all meetings and coordinated the entire process.

A listing of subcommittees is as shown below. Each committee was asked to go about its work following a process akin to the “logic model” developed by Carol Weiss and others (Weiss, C.H. Evaluation Research. Methods for Assessing Program Effectiveness. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1972). Many versions of logic models have now been described, but the basic idea is to plan with the outcome or impact in mind. Our application of the logic model was first to define the desired impact (the ultimate benefits that result from the strategy) and then work backward to define the short- and long-term outcomes that need to be achieved as milestones to reach the desired ultimate impact; the activities that are needed to achieve those outcomes; and the “inputs” or resources that are needed to engage successfully in these activities.

Reports from each subcommittee were posted on the UF Health intranet (“The Bridge”) for input beginning in February 2015; the final reports are included in the attachment “Strategic Plan Subcommittee Reports,” which reflect the diverse contributions of a wide cross-section of the UF Health community. In determining the final goals of the strategic plan, and the recommended elements of the logic model to achieve these

goals, the Strategic Planning Task Force took into account many of the suggestions in these reports, as well as input from the UF Health Strategic Cabinet, the hospital boards, the provost and input from the UF Health faculty and staff in response to earlier drafts that were posted for comment.

### **Strategic Plan Subcommittee on Patient Care**

#### **Members**

David Guzick	James Roberts	Scott Rivkees
Michael Good	Brad Pollitt	Adrian Tyndall
Edward Jimenez	Tom Pearson	Melanie Fridl Ross
Bill Robinson	Tim Goldfarb	Mary Ann Kiely
Tim Flynn	Randy Harmatz	Kari Cassel
Marvin Dewar	Robert Hromas	Laura Huntley
Irene Alexaitis	Kevin Behrns	

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Facility Planning: (Chair: Brad Pollitt)	Tim Flynn Irene Alexaitis	Anna Michelle Brandt Chris Cassisi	Michelle Wahl Mary Ann Kiely
High Reliability (Chair: Rob Hromas)	Steven Hughes - Vice Chair Charles Gibbs Randy Harmatz	Brian Geller Susan Keating Roque Perez	Michele Lossius Eric Rosenberg Scott Teitelbaum
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Information Technology (Chair: Kari Cassel)	Don Novak - Vice-Chair Eric Rosenberg Steve Hughes Christina Shaw Gigi Lipori	Duke Lim Drew Smithson Michael Mahla Elizabeth White	Randy Harmatz Bill Hogan Chuck Behl Sanjeev Tuli
Multidisciplinary Care (Chair: Kevin Behrns)	Tom George, Jr - Vice Chair Greg Janelle Hari Parvanateni	Mike Waters John Reith	Chris Jolley Wanda Whittet

Preeminence and Innovation in Patient Care (Chair: Tim Flynn)	Frederick Moore Michael Waters Mark Segal Brian Hoh Sanjeev Tuli	Kevin Farmer Mark Bleiweis Laurie Davies Diana Richardson Lee Titsworth	Bill Collins Marina Cecchini Gigi Lipori Mark Amox Stephen Figueroa
Quality & Safety (Chair: Randy Harmatz)	Eric Rosenberg Wanda Whittet Jim Kelly Don Novak	Brian Hoh Sanjeev Tuli Diana Richardson	Gigi Lipori Lee Titsworth Mark Amox

### Strategic Plan Subcommittee on Research

Tom Pearson Alan Berger Bob Burne	<b>Members</b> Linda Cottler Debra Lyon Bill Millard	Ammon Peck Steve Sugrue
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<b>Work Group</b>	<b>Members</b>		
Integration of Research Activities Spanning a Main Campus and Parallel Academic Health Center (Chair: Alan Berger)	Tina Bottini Daniel Wilson		
Global/International Research Involvement and Strategies (Chair: Linda Cottler)	Maureen Goodenow Jorge Hernandez	Michael Lauzardo Sven Normann	Jane Houston Scott Tomar
Training (Chair: Jennifer Elder)	Roger Fillingim Marian Limacher	Michael Marsiske Debra McDonald	Reginald Frye Sylvain Doré
Public-Private Partnerships (Chair: Bill Millard)	Chris Batich Patti Breedlove Donn Dennis Hartmut Derendorf	Stephanie Gray Karen Pastos Linda Homewood	Todd Golde David Day Barry Curtis
Research Infrastructure at UF HSC (Chair: Ammon Peck)			
Research Space (Chair: Steve Sugrue)	Karen Pastos Krista Vandenborne Charles Peloquin	Christiaan Leeuwenburgh Patrick Concannon	Henry Baker Todd Golde
Metrics for Research Productivity (Chair: Robert Burne)	Stephanie Gray	Wayne McCormack	Claire Baralt

## Strategic Plan Subcommittee on Education

Tom Pearson Diane Beck Amy Blue	<b>Members</b> Joe Fantone III Pamela Ginn	Linda Haddad Venita Sposetti
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Work Group	Members	Members
Mentoring and Junior Faculty Development (Chair: Tom Pearson)	Rhonda Cooper-DeHoff Brittany Lee-McMullen Roger Fillingim	Donna Giles Linda Edwards Ozlem Yilmaz
Leadership in Trainees and Junior Faculty (Chair: Diane Beck)	Amy Blue Amara Estrada Marian Limacher	Mike Mahla Andrea Gregg Patty Xirau-Robert
Strategic Student Recruitment (Chair: Stacy Beers)	Melanie Fridl Ross Wanda English Joe Fantone III Leila Amiri Ralph Rice Venita Sposetti	Diane Beck Mike McKenzie Linda Homewood Sharon McFadden Kenneth Foote Tracy Wright
Interprofessional Education: Core Curricula, Postgraduate Training and Career Impact (Chair: Amy Blue)	Diane Beck Sharon Bradley Petar Breitingner Sharon Buchs Gail Childs	Andrea Gregg Joe Fantone III Carol Motycka Gina Murray Venita Sposetti
Tools to Integrate Learning, Assessment and Health Care Outcomes (Chair: Joe Fantone III)		
HSC Diversity and Inclusion (Chair: Jeanne-Marie Stacciarini)	Julia Conway Folakemi Odedina Patricia Xirau-Probert	Donna Parker Lisa Farina
		Christy Ewing Kelly Reid

## Strategic Plan Subcommittee on Community Engagement

Tom Pearson Amy Blue Linda Cottler David Feller	<b>Members</b> Micaela Gibbs Tim Goldfarb Michael Gutter Nancy Hardt	Betsy Shenkman Denise Schentrup Jill Sonke
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