University of Florida Health Neuromedicine
2015 PROGRESS REPORT

Collaborating to create the ultimate patient experience.
Located in Gainesville on the University of Florida campus, the Evelyn F. and William L. McKnight Brain Institute at UF is one of the nation’s most comprehensive and technologically advanced centers hosting experts who are devoted to discovering how the normal brain operates and how to repair the brain following injury, disease or aging.

Welcome to the University of Florida Health Neuromedicine 2015 PROGRESS REPORT

Greetings Friends,

In 2015, the new University of Florida Health five-year strategic plan was introduced under the name “The Power of Together.” The idea? That together, UF Health physicians and staff are shaping the future of patient care, learning and discovery. The plan is meant to serve as a roadmap while we build on our strengths and continue to invest carefully in the highest-quality patient care, comprehensive education and innovative research.

On campus, we often refer to UF Health Neuromedicine as NICAP, which stands for Neuromedicine Interdisciplinary Clinical and Academic Program. At UF Health, NICAP includes the departments of neurosurgery and neurology and all of the hospital components that support neuromedicine. Our goal is to provide the optimal patient experience. This requires the commitment of every physician and team member within the hospital and facility walls.

This year, we broke ground on the UF Health Neuromedicine Hospital. Our vision is that the new hospital will exemplify our efforts to make the patient experience the best it can be. This report highlights the ongoing work behind the scenes to make sure each and every person who comes through our doors is receiving excellent care and benefiting from the novel research taking place here at UF.

We hope you will appreciate our digital report this year, complete with multimedia components like website links, videos and photo slideshows. If you would like to request a printed copy, use this link, or email Business Development Manager Kelly Flowers at flowek@shands.ufl.edu.

Sincerely,

William A. Friedman, MD  
Co-director  
UF Health Neuromedicine  
Professor and Chairman  
Department of Neurosurgery  
University of Florida College of Medicine

Michael S. Okun, MD  
Co-director  
UF Health Neuromedicine  
Professor and Chairman  
Department of Neurology  
University of Florida College of Medicine
Collaborating to create the ultimate patient experience.

We invite you to learn about three individuals who had optimal experiences while in the care of the University of Florida Health Neuromedicine team. These people represent many others who have taken the brave journey toward healing with us, and the many who continue to follow afterward along the same path. At UF Health, we aim to move medicine forward with each patient we serve. We have four priority clinical quality and patient safety goals, or “Big Aims,” that guide our patient care.

Howell Brown III
12 years old
Race car enthusiast
Brain tumor patient

Catherine Flanigan
66 years old
Loving grandma
Stroke patient

Sharon Meeks
75 years old
Former cowgirl
Spine patient
The interdisciplinary neuro-oncology team at UF Health includes seven highly skilled neurosurgeons. They work together with neuro-oncologists, radiation oncologists, neuropathologists, neuroradiologists and neuro-anesthesiologists as well as with advanced registered nurse practitioners, nurses, social workers, nutritionists and psychologists to develop and deliver optimal treatment plans for each patient.

UF Health Neuromedicine has three medical neuro-oncologists on staff, two adult and one pediatric, who collaborate with the neurosurgical teams through research and direct patient care.

UF Health Neuromedicine neurosurgeons have performed 572 tumor-related procedures in the past year.

Since the beginning of the radiosurgery program in 1988, UF Health neurosurgeons have performed more than 4,500 procedures, many of which have been for brain tumors using the UF-patented radiosurgery system known as the Linac Scalpel.

Howell is just like any other boy growing up in a small North Carolina town. He loves playing sports, raising award-winning cattle for the county fair and NASCAR.

But when Howell was 9 years old, he began getting headaches, bad headaches.

“It got so bad I was throwing up, and it was just terrible,” Howell said.

Howell's pediatrician thought he had bad allergies, or perhaps a persistent and severe sinus infection. But, medicines weren't working. Eventually, his doctor ordered an MRI, which revealed the headaches' source, a medulloblastoma.

Howell was rushed from his hometown doctor's office, via a four-hour ambulance ride, to Duke University Hospital, where he was initially treated for his brain tumor. He had three surgeries, including a craniotomy for gross total tumor resection, followed by six weeks of radiation and four months of chemotherapy.

“I was kind of scared when I found out I had a brain tumor,” Howell said. “The surgeries happened fast, but I will tell you what, it was a lot easier than the time I had my tonsils taken out!”

Afterward, Howell had no evidence of disease for nearly two years. But, then the cancer returned...

BY THE NUMBERS

CLINICAL

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Discovering the most advanced treatments

The Preston A. Wells Jr. Center for Brain Tumor Therapy is home to some of the most advanced neuro-oncology research in the world. The department of neurosurgery at UF is one of the top-funded neurosurgery departments in the United States. Supported by the NIH and other grant sources, the department is a destination for some of the top researchers in the area of neuro-oncology.

DISCOVER MORE about current clinical trials and research studies in the area of neuro-oncology at UF Health.

Florida Center for Brain Tumor Research

Since 2006, experts within the Florida Center for Brain Tumor Research, or FCBTR, at the Evelyn F. and William L. McKnight Brain Institute at UF have worked with hospitals statewide to collect tissue and disseminate data on brain tumors, creating a powerful tool to facilitate clinical trials, funding opportunities and research collaborations.

FCBTR is a collaborative effort, sponsored by the state of Florida, and its Scientific Advisory Council, and includes top researchers from H. Lee Moffitt Cancer Center and Research Institute, Mayo Clinic, Cleveland Clinic Florida, Scripps Research Institute, UF Health Cancer Center – Orlando Health, University of Miami and a representative group of neurosurgeons in private practice. FCBTR has sponsored annual statewide brain tumor biomedical technology summits to encourage collaboration.

DISCOVER MORE about how the FCBTR is moving medicine forward.

DISCOVER MORE about the FCBTR is moving medicine forward.

UF Health Neuromedicine researchers have received more than $7.5 million in grant funding to support research into novel methods for treating and curing brain tumors.

15 Within UF Health Neuromedicine, 15 scientists are working to advance neuro-oncology research.
In the areas of stroke prevention, therapies, neuroimaging and other endovascular therapies, UF Health has 16 ongoing clinical trials and research studies.

UF Health vascular neurologists and cerebrovascular/endovascular neurosurgeons have published more than 34 stroke-related papers in peer-reviewed journals during the 2014-2015 academic year.

Discovering the most advanced treatments

Stroke research is a vital component for patients at the UF Health Shands Comprehensive Stroke Center. Medical Director Michael F. Waters, MD, PhD, and Chief of Cerebrovascular Surgery at UF Health Brian Hoh, MD, and their teams currently are involved in basic science, translational research and clinical trials all relating to stroke prevention, acute stroke care and neuroimaging in stroke. This research is funded by the National Institutes of Health, as well as private sources.

Because of their active research, Dr. Waters and Dr. Hoh are aware of new stroke therapies and can offer the best treatment options possible for stroke patients. In turn, patients benefit by having the latest information on stroke prevention and treatment and, as appropriate, can participate in clinical research.

On call 24/7, nine highly trained, subspecialty, board-certified physicians, including vascular neurologists and cerebrovascular/endovascular neurosurgeons, provide state-of-the-art care in Gainesville at UF Health and in Orlando at Orlando Health.

BY THE NUMBERS

1065 In the last year year, UF Health Neuromedicine physicians cared for 1,065 patients with intracerebral hemorrhages, aneurisms, sub-arachnoid hemorrhages, ischemic strokes and transient ischemic attacks.

9 On call 24/7, nine highly trained, subspecialty, board-certified physicians, including vascular neurologists and cerebrovascular/endovascular neurosurgeons, provide state-of-the-art care in Gainesville at UF Health and in Orlando at Orlando Health.

317 UF Health Neuromedicine received 317 neurological stroke requests for transfer (not including endovascular treatment requests) in 2015 from 16 counties all over Florida.

30 Patients benefit from our dedicated, 30-bed neuro ICU, one of the largest in the state, with private rooms and full monitoring capabilities.

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By the Numbers Clinical

STROKE

Catherine awoke in the middle of the night and was unable to move her right leg. Her husband’s face seemed distorted to her, and the words she tried to say just wouldn’t come out right.

Her husband, Harry, realized something was terribly wrong, and called an ambulance. The emergency services personnel determined Catherine was having a stroke. They brought her, via ambulance to the UF Health Shands E.R. as a “stroke-alert” patient, alerting UF Health staff of her impending arrival.

A highly specialized computed tomography scan, or CT angiography and CT perfusion, showed that Catherine had a complete occlusion of her left middle cerebral artery. The left side of her brain was starving for blood and oxygen and at risk for permanent, irreversible damage.

“The doctors and staff were great,” Harry said. “They were so fast, but so careful with everything they did.”

Michael Waters, MD, PhD, a vascular neurologist and medical director of the UF Health Shands Comprehensive Stroke Center said Catherine’s case was particularly complicated...
SPINE

Sharon Meeks has spent her life taking care of her family. She and her husband were married for 55 years. They raised three children and worked hard on their 107-acre cattle farm in central Florida. Hearing Sharon’s story, you might never guess that she was plagued with adult scoliosis for more than a decade. Sharon, now 75 years old, had surgery many years ago to treat a routine spinal problem. The surgery was successful, but over time, her condition continued to worsen. Her posture curved. She was involuntarily leaning to one side and arching forward. This shift in stance was causing her terrible hip and back pain. She could barely stand long enough to do normal activities like prepare a meal. The progressive deformation of her spine was debilitating. Her primary physician told her that if she didn’t do something to correct this problem, she would be confined to a wheelchair within 12 months.

So, Sharon honored the wishes of her late husband and her family, and she did something. Her son, Sanford, had studied at the University of Florida College of Medicine and worked with several faculty members in the department of neurosurgery. He knew his mom needed a level of care that might not be available in their local community...

Discovering the most advanced treatments

Experts within the spine surgery program at UF Health Neuroradiology are participating in the National Neurosurgery Quality and Outcomes Database, or N²QOD, which is a continuous national clinical registry for neurosurgical procedures and practice patterns. A NeuroPoint Alliance project, its primary purpose is to track quality of surgical care for the most common neurosurgical procedures, as well as provide practice groups and hospitals with an immediate infrastructure for analyzing and reporting the quality of their neurosurgical care.

Only 1 percent of hospitals nationwide are participating in the N²QOD at present. Because there is a growing emphasis on quality in health care and in patient outcomes, participation is a significant tool for spine surgeons today.

“The N²QOD project is an important tool that lets us review how our patients compare with others across the country. We can compare our institution with others nationally, and I can compare myself to my colleagues,” said Daniel J. Hoh, MD, the principal N²QOD site investigator for UF Health. “By participating, we are making it clear that the best patient experience is always centered directly on individual patient outcomes, making improvements wherever possible and continuing those procedures that are proven effective. This national neurosurgery registry helps us to do this by answering the challenging questions about our patients’ conditions and how we can best treat them.”

13

UF Health Neuroradiology features 13 highly trained spine surgeons, 10 of whom are based at UF Health in Gainesville and three of whom are based at UF Health Neuroradiology – Orlando Health. They are able to treat pediatric and adult patients, including those with routine and complex cases. Members of the spine surgery team perform nearly all types of spinal decompressive and reconstructive surgery.

5

Only 5 percent of U.S. hospitals are designated as a Blue Cross Blue Shield Blue Distinction Center® in the area of spine surgery. UF Health Shands Hospital is one of them. Research confirms that hospitals designated as Blue Distinction Centers® and Blue Distinction Centers+® for spine surgery have fewer complications and fewer hospital readmissions than nondesignated hospitals.

1000

Neurosurgeons at UF Health Neuroradiology in Gainesville and Orlando perform approximately 1,000 spine surgery procedures annually.

40

UF Health Shands Rehab Hospital, a 40-bed facility located in Gainesville, is staffed by expert physiatrists, therapists, rehab nurses and case managers.
At University of Florida Health Neuromedicine, quality is the top priority.

At UF Health Neuromedicine, quality is the top priority. The goal of all physicians and staff is to provide patients with the highest level of quality care and the best possible patient experience. Our care teams strive to consistently meet and exceed national standards for clinical outcomes, patient safety, outstanding service and patient satisfaction. By pursuing the newest and best technologies, hiring and retaining a highly skilled staff and promoting a culture of safety and excellence, UF Health has demonstrated its commitment to quality.

At UF Health, we have four priority clinical quality and patient safety goals, or “Big Aims,” that guide our patient care.

Reduce Harm: We strictly follow practices that reduce preventable complications, improve medication safety and reduce mortality.

Reduce Variation in Care: We also follow practices that reduce preventable complications, improve medication safety and reduce mortality.

Enhance the Patient Experience: Everything we do is focused on patient-centered care. Efforts include our overall hospitality and behaviors, such as clear and supportive patient communication. We also ensure patients are comfortable while receiving medical treatment.

Transform Our Culture: Every person employed or volunteering at UF Health contributes to the care and experience of our patients. We are on a journey to transform our culture through common standards of behavior and consistent practices that make sure everyone with whom we come into contact has a positive encounter at UF Health.

Since the BIG AIMS efforts began in 2014, the UF Health Neuromedicine quality workgroups have completed more than 36 projects.

An additional 75 quality projects are slated to begin within UF Health Neuromedicine in FY16 and beyond.

Within UF Health Neuromedicine, quality task forces and workgroups include 89 faculty members, residents, staff, students and researchers.

In FY15, UF Health Neuromedicine moved in a positive direction in 12 out of 17 quality outcome variables.

Among UF Health Neuromedicine quality initiatives in FY15 were two grants, two manuscripts and two presentations accepted by national and international associations, including the Institute for Healthcare Improvement and the UHC.

Jacqueline Baron-Lee, PhD

Jacqueline Baron-Lee, PhD, is the director of quality improvement for UF Health Neuromedicine. She is tasked with leading groups focused on improving quality care for patients. These groups include faculty members, resident physicians and staff within the UF departments of neurology and neurosurgery, and faculty members, staff and student interns from colleges across the university.

“My job is not only about improving metrics on a scorecard,” said Dr. Baron-Lee. “We do a lot of measuring, benchmarking and comparing, but ultimately, it is all in an effort to deliver the best possible care to our patients.”

Dr. Baron-Lee said UF Health Neuromedicine is ahead of the quality effort in part because of such strong support from UF Health and the UF departments of neurosurgery and neurology.

“Putting quality to the top of the priority list is a group effort,” Dr. Baron-Lee said. “Within UF Health Neuromedicine, we are all held accountable, and we are all supporting each other and feeling the encouragement from our chairmen and other institutional leaders. That support helps us pave the way for continued improvements.”

Dr. Baron-Lee is spearheading numerous projects with the support and involvement of UF Health physicians and nursing and quality leaders, as well as UF researchers.
New University of Florida Health Neuromedicine Hospital Opening in 2018

In January 2015, UF Health broke ground on the UF Health Heart & Vascular Hospital and the UF Health Neuromedicine Hospital, a $415 million project that will give rise to the Southeast’s most advanced home for the care of patients with heart, vascular and neurological illnesses.

Housed in one contiguous building, each hospital’s focus will give patients concentrated care for some of the most complex health conditions. Consolidating cardiac and neurologic experts in one location will help to provide shorter procedure times for patients, provide a variety of treatment options and promote shorter hospital stays and faster recovery.

The new UF Health Neuromedicine Hospital will have 96 patient beds located in the upper floors of the tower. Below, radiology, presurgery, laboratory and other support services will be on the first floor so that patients will be able to have most of their health care needs met in one building. The hospital also will feature multiple hybrid operating rooms with the capability of adapting to rapidly changing medical technology. Conveniently located and centralized neurology and neurosurgery surgery offices for pre- and postoperative appointments will exemplify UF Health’s commitment to a seamless continuum of care for every patient.
At UF Health Neuromedicine, we are dedicated to providing technically superb, compassionate and timely medical care for our patients. We are committed to the education of resident physicians and continuing medical education for practicing physicians in the art and science of neuromedicine. We are always exploring and developing — through clinical and basic research at the Evelyn F. and William L. McKnight Brain Institute of the University of Florida — new and better treatments for neurological and neurosurgical disorders.

**Excellence in Patient Care**
- Preston A. Wells Jr. Center for Brain Tumor Therapy
- Comprehensive Stroke Center – The Joint Commission
- Spine Distinction Center+® – Blue Cross Blue Shield
- Level 4 Epilepsy Program – National Association of Epilepsy Centers
- Parkinson’s Disease Center of Excellence – National Parkinson’s Foundation
- Center for a Dystonia Cure – Tyler’s Hope
- Dystonia & Parkinson’s Disease Center of Excellence – Bachmann-Straus
- Tourette Center of Excellence – National Tourette Syndrome Association
- Huntington’s Disease Center of Excellence – Huntington’s Disease Society of America

**Nationally ranked by U.S. News & World Report**
- One of the largest neuromedicine inpatient Medicare providers in the country
- Comprehensive neuromedicine services unparalleled in the southeastern United States
- One of the nation’s largest volume centers for the treatment of cerebrovascular disease
- One of the top research-funded academic neurosurgery departments in the nation
- World-renowned center for the treatment of movement disorders and neurorestoration
UF Health Neuromedicine in the News

We’ve been busy making news! Click or tap on any of the articles below to learn more.

- 9/8/14 Mentors of University of Florida doctors receive major award
- 9/10/14 Study finds link between insurance type and treatment for stroke patients
- 11/3/15 UF Health among top hospitals with new national comprehensive stroke center certification
- 1/12/15 Study finds genetic predictor of serious hemorrhagic stroke complications
- 1/14/15 UF residency programs ranked top in the South
- 1/22/15 Research suggests anti-inflammatory protein may trigger plaque in Alzheimer’s disease
- 1/23/15 University of Florida Health breaks ground for new hospitals
- 2/24/15 Trial could lead to new treatment for most common form of muscular dystrophy
- 3/3/15 Brain tumor patients fare better with private insurance, new study finds
- 3/4/15 University of Florida researchers find source of some middle-age memory problems
- 3/10/15 Several UF Health graduate programs ranked among nation’s best
- 3/11/15 A one-two vaccine punch could leave brain tumors vulnerable to the immune system
- 3/18/15 New paper updates guidelines for surgical treatment of Tourette syndrome
- 3/23/15 UF neurologist honored as a White House Champion of Change
- 4/2/15 Brain tumor growth can be slowed, new study suggests
- 4/13/15 “Big data” database aims to speed up Alzheimer’s research with input from UF Health scientist
- 5/1/15 Neural stem cell implants hold promise for treating epilepsy, other neurological disorders
- 5/26/15 Modifying stem cells shows initial promise in battle against muscular dystrophy
- 6/11/15 Severely impaired stroke survivors regain arm function after intensive physical therapy
- 6/24/15 New grant supports scholar training in movement disorders research
- 6/29/15 Guidelines urge new approach to treating worst strokes
- 7/8/15 UF Health researchers use immunotherapy to treat malignant brain tumors
- 7/21/15 UF Health Shands Hospital recognized as one of nation’s best hospitals
- 7/27/15 In lab tests, new therapy slows spread of deadly brain tumor cells
- 8/26/15 UF researchers find memory problems in some people with Parkinson’s disease
- 8/26/15 UF, Mount Sinai Medical Center of Florida receive funding for Alzheimer’s Disease Research Center
- 9/11/15 Stroke patients fare better with private insurance than with Medicaid, UF Health researchers find
- 9/16/15 UF Health researchers find some evidence of link between stress, Alzheimer’s disease
- 9/22/15 Researchers and patient advocates receive funding award to build Alzheimer’s research network
- 10/6/15 Virus-drug combination shows improved effectiveness against brain tumor cells
Thank you for taking the time to read the University of Florida Health Neuromedicine 2015 Progress Report.

If you have any questions or would like to request a printed copy of this report, please email Business Development Manager Kelly Flowers at flowek@shands.ufl.edu.