

UC Comprehensive Stroke Center is named national coordinating center for stroke research

The UC Comprehensive Stroke Center has been named the national coordinating center for StrokeNET, a network of 25 regional stroke centers, highlighting its role as a leader in federally funded research. The NIH designation, along with a new regional coordinating center designation, will bring \$8.4 million in federal research grants to Cincinnati over the next three years.

Joseph Broderick, MD, Director of the UC Neuroscience Institute, will be the principal investigator for the national center. **Pooja Khatri, MD**, and **Dawn Kleindorfer, MD**, professors in the Department of Neurology and Rehabilitation Medicine, will be the co-principal investigators for the regional center. The announcement came shortly after the UC Medical Center was named an Advanced Comprehensive Stroke Center, a new level of certification reserved for institutions that receive and treat the most complex stroke cases.

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Bob McDonald, former Chairman of the Board, President, and CEO of the Procter & Gamble Company, recently toured University of Cincinnati Medical Center and had this to say: "The UC Comprehensive Stroke Center is known to be one of, if not the world's best stroke center. They saved my mother's life. The care that she got in those first few minutes after her stroke was critical to her recovering all of her faculties, which she's been able to do. We have such a blessing here at the UC Neuroscience Institute with the top-quality medical care that's available."

UCNI CENTERS & PROGRAMS

- Brain Tumor Center
- Comprehensive Stroke Center
- Epilepsy Center
- Gardner Family Center for Parkinson's Disease and Movement Disorders
- Memory Disorders Center
- Mood Disorders Center
- Neurosensory Disorders Center
- Neurotrauma Center
- Waddell Center for Multiple Sclerosis
- Headache and Facial Pain Program
- Neuromuscular Program

UC Neuroscience Institute puts a premium on patient- and family-centered care

The doctor may still know best, but the doctor wants you to be part of the decision-making process. That is a message being heard over and over at the UC Neuroscience Institute, which is making patient- and family-centered care a priority. Physicians and nurses want to be certain that patients and their families understand the treatment provided and are able to actively participate in their care and recovery.

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"This is an exciting time for stroke research, and we're eager to get started," says Dr. Broderick, who has served as principal investigator on many federally funded clinical investigations related to stroke during his 26 years on the UC faculty. "The prior traditional approach was cumbersome and inefficient, because one had to start each new clinical trial from scratch. Now, with a national network and coordinated leadership, clinical stroke researchers can move more swiftly from one trial to the next without repeatedly having to re-invent the wheel. This trial network will focus on clinical trials of acute stroke treatment, stroke prevention and stroke recovery so that we can reduce the tremendous burden of stroke in our country and around the world."

The coordinating center will include a team of people based at UC as well as leaders in other centers around the United States.

Neurotrauma researchers take part in global initiative

Researchers at the Neurotrauma Center at the UC Neuroscience Institute are taking part in one of the largest international research collaborations ever coordinated by funding agencies. Led by **Opeolu Adeoye, MD**, Associate Professor of Emergency Medicine and Neurosurgery, UC is one of 55 institutions around the world that will team up to study concussion and traumatic brain injury (TBI).

The effort is fueled by an \$18.8 million award from the National Institutes of Health over five years as well as by contributions from the private sector and the nonprofit One Mind for Research.

The International Traumatic Brain Injury (InTBIR) Initiative is a collaborative effort of the European Commission, the Canadian Institutes of Health Research (CIHR), NIH and the U.S. Department of Defense. The collaboration includes a continuing effort called TRACK-TBI. As part of TRACK-TBI, UC researchers will collect data needed to improve diagnosis and treatment of brain injury.

The U.S. Centers for Disease Control and Prevention estimates that 2 percent of the U.S. population now lives with TBI-caused disabilities, at an annual cost of about \$77 billion.

"There are many different ways in which the brain can be injured," says Dr. Adeoye. "Across the world, these patients are all managed very differently, and this makes it very difficult to know which treatments benefit which patients. Making the data available to all will allow us to harness the knowledge and ingenuity of investigators from around the world and improve the chances of discovering new treatments to improve TBI outcomes."

The UC Comprehensive Stroke Center is a research powerhouse whose history as a global leader is founded in its trailblazing study of TPA in the 1980s for the treatment of acute ischemic stroke. During the calendar year 2012 the Comprehensive Stroke Center received approximately \$29 million in federal research grants for the study of brain aneurysms, genetics, acute stroke, intracerebral hemorrhage, neuro-imaging and neuro-recovery. The center's output was equally impressive: 50 publications in peer-reviewed journals and the presentation of more than 50 posters, lectures and symposia at the 2013 International Stroke Conference.

One of the center's most important findings during the last 15 years is that stroke is rising in people under 45. Fifteen years ago, 4 percent of all stroke patients were under 45. Today, 7 percent of all stroke patients are under 45. The most likely culprit is the epidemic of obesity and diabetes, which is causing people to develop risk factors in young adulthood and even childhood rather than in middle age.

U.S. TRACK-TBI sites will enroll 3,000 patients with mild to severe brain injuries – linking clinical, imaging, genomic and outcome data. The data will be made available to researchers to evaluate diagnostic tests and biomarkers of TBI, and to evaluate which treatments improve patient outcomes across all phases of recovery and severity.



Norberto Andaluz, MD, Director of the Neurotrauma Center, with a soldier in the C-STARS simulator

Scientists awarded pilot grants for brain cancer research

The UC Brain Tumor Center's Molecular Therapeutics Program has awarded \$100,000 pilot grants to **David Plas, PhD**, Associate Professor of Cancer Biology, and **Atsuo Sasaki, PhD**, Assistant Professor of Medicine in the Division of Hematology Oncology.

Dr. Plas's research is focused on finding a way to halt the growth and spread of glioma, a cancer that begins in the brain's glial cells. His research focuses on a specific protein known as S6K1 that plays a role in all four sub-types of glioma.

Dr. Sasaki's research is focused on finding a way to halt malignant brain tumors, including glioblastoma, the most advanced form of glioma, and brain metastasis of breast cancers. His research focuses on a specific protein, Type II PIPK, which is linked to a mutation that frequently appears in glioblastoma and breast cancer metastases.

The grants will be given over two years, with funding having begun in December 2013. The Molecular Therapeutics Program is a translational research program that seeks to translate novel laboratory research into Phase I clinical trials for patients.

The grants are the latest example of how fundraising efforts by the UC Brain Tumor Center's Community Advisory Council, chaired by Kathy Beechem, and the Shemanski Foundation have fueled innovative pilot studies. "Pilot grants of \$50,000 to \$100,000 enable researchers to test new ideas and to gather preliminary data that are necessary for a larger grant from the National Institutes of Health," says **Ronald Warnick, MD**, Medical Director of the UC Brain Tumor Center and the John M. Tew, Jr., Chair in Neurosurgical Oncology.

New Headache and Facial Pain Program matches patients with sub-specialists

The new Headache and Facial Pain Program at the UC Neuroscience Institute promises a personalized treatment approach for the thousands of people in the Midwest who suffer from migraines, cluster headaches and facial pain. The program is led by specialists from multiple disciplines who help patients reduce or eliminate the pain that is unique to them.

"This program is one of the only multidisciplinary headache and pain centers in our region," says **Vincent Martin, MD**, a headache specialist and Co-Director of the program. "In the past, headache and facial pain have been treated separately and without much integration. Our program combines services including neurology, internal medicine, neurosurgery, neuro-oncology, otolaryngology (ear, nose and throat), dentistry, pain management and integrative medicine to maximize the treatment of both headache and facial pain."

Patients who call to make an appointment will be referred to the most appropriate specialist within the program. For example, a patient with temporomandibular joint disorder, or TMD, may receive treatment from an oral surgeon who is an expert in that field, while a patient with sinus infections that produce headache or facial pain will be treated by an ear, nose and throat specialist. A subset of patients with facial pain who suffer from trigeminal neuralgia will be referred to a neurosurgeon.

Patients can make an appointment in Clifton or West Chester by calling (513) 475-8730.

Family-centered care

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During the last several years the UC Neuroscience Institute has embraced collaborative rounds as a new standard of care. During collaborative rounds the neurological healthcare team meets each morning at the patient's bedside to discuss all aspects of the patient's treatment. The daily routine provides patients and family members with an opportunity to ask questions about the treatment plan, to express personal needs or expectations and to review issues that may arise following hospital discharge. Topics include the patient's diagnosis, health status, diagnostic tests, changes that may have occurred during the night, discharge and follow-up treatment and rehabilitation.

Families participate further if their loved one has undergone surgery and is recovering in the Acuity-Adjustable Unit, the first of its kind for neurosurgical patients in the United States. An acuity-adjustable room is designed to eliminate the need for patients to be transferred to different care settings as their recovery progresses. Instead, the room and nursing team adjust to the seriousness, or acuity, of the patient's condition. The new rooms are also designed to enhance autonomy and allow a family member to stay with the



From left, **Lauren Rosenberg, RN**, **Jenny Ross, RN**, and **Molly O'Brien, RN**

patient around the clock. Enhanced family participation has a direct impact on patient satisfaction and has been shown to reduce stress and expedite recovery.

The institute's Nurse Navigator Program is another valuable initiative that helps patients and families navigate the different phases of their care. The program also provides support, education and resources to patients who are experiencing difficulties. The Nurse Navigator contacts the patient prior to his or her admission, meets with family members while the patient is in surgery, and follows up with "high-risk" patients at home or in a rehabilitation facility after discharge. If a patient is admitted to the hospital unexpectedly, the Nurse Navigator also can assist family members with lodging.

NIH study tests anti-inflammatory for patients with progressive MS

The Virgilee and Oliver W. Waddell Center for Multiple Sclerosis is taking part in a Phase II clinical trial for Ibudilast, an anti-inflammatory drug that will be tested in study participants with progressive MS, the most challenging type of multiple sclerosis. The Waddell Center is one of 28 sites participating in the study, which is sponsored by the National Institutes of Health (NIH) and the manufacturer of the drug, MediciNova, Inc. **Aram Zabeti, MD**, the Waddell Center's new Interim Medical Director, is principal investigator of the Cincinnati portion of the trial.



Dr. Aram Zabeti

Progressive MS has two sub-categories: primary and secondary. Patients with primary progressive MS experience steady progression of their disease from the onset. Patients with secondary progressive MS enter this phase following an earlier phase called relapsing-remitting MS, a period marked by cycles of wellness, attacks and recovery. "Once they are progressive," Dr. Zabeti says, "they keep getting worse, month by month or year by year."

At present, there are 10 FDA-approved medications for relapsing-remitting MS, but none for progressive MS. The availability of a medication that slows the progression of MS, Dr. Zabeti says, would be of critical importance.

Study participants will be randomized to one of two groups. One group will receive the ibudilast treatment, and the other a placebo. Study participants will not be told which group they are in. The study will evaluate ibudilast's effect on brain atrophy and relapse rate as well as the drug's safety and tolerability. Researchers also will study drug's effect on disability, cognitive impairment, quality of life and neuropathic pain. The study will enroll about

Shor Foundation Workshop Explored Stress & Epilepsy

Using stress modification as a practical approach to predicting and reducing seizures was a focal point of the 6th annual Stress and Seizure Workshop at the UC Epilepsy Center last October. Researchers from nine institutions gathered to discuss research and ideas related to stress and disease states, including epilepsy. Medication-resistant epilepsy accounts for the majority of health-related epilepsy costs, and the average new antiepileptic drug eliminates seizures in only 2 to 3 percent of patients, says **Michael Privitera, MD**, Medical Director of the UC Epilepsy Center. Those disappointing numbers have prompted several researchers, including Dr. Privitera, to explore a different approach. A study underway at the UC Neuroscience Institute seeks to shed light on whether people with epilepsy can anticipate seizure triggers by keeping twice daily smartphone diaries and reduce or eliminate seizures by reducing stress. At the workshop, which was supported by the Charles L. Shor Foundation, speakers from the fields of cardiology, psychiatry and basic neuroscience instructed the epilepsy specialists about clinical trials and experimental treatments for stress in those fields. Brainstorming sessions yielded new insights, which will be incorporated into future trials of stress and seizures.

Obesity may be risky for your hearing and brain

Ravi Samy, MD, Director of the Cochlear Implant Program at the UC Neurosensory Disorders Center, provides supporting evidence of a possible link between obesity and the spontaneous leakage of cerebrospinal fluid through the ear. The research by Dr. Samy and his team was published online in *The Laryngoscope*.



Dr. Ravi Samy

"Spontaneous cerebrospinal fluid leaks are on the rise," Dr. Samy says. "Traditionally, leaks were caused by infection, surgery or trauma, and were rarely spontaneous. Now spontaneous cases occur more often. Why that is happening, we don't completely understand. But it is likely another reason why obesity is bad."

Cerebrospinal fluid, or CSF, is a clear, colorless, constantly circulating fluid that bathes and cushions the brain and spinal cord. Spontaneous CSF leaks have increased from about 3 percent of all CSF leaks in the 1980s to between 25 and 59 percent of all leaks in recent years.

CSF can escape through the ear if a sac-like protrusion of the brain swells through the openings in the skull. When that happens, CSF can leak out of the ear as clear fluid or pool underneath the ear drum. The leak must be repaired surgically to stop further damage.

Dr. Samy's research found patients with spontaneous leaks had one striking feature in common: they were obese, with a body mass index (BMI) of 30 or more. "This study is evidence of yet another health risk of obesity," Dr. Samy says. "Obese patients face a higher risk of complications during surgery to repair the leak and for meningitis and hearing loss."

Thousands of patients, family members and friends took part in fundraising and educational events last summer and fall



Emcee Cammy Dierking, left, and Co-Chair Kathy Krumme at the Sunflower Revolution Fitness Festival

- The Sunflower Revolution in September celebrated its 10th anniversary with a new Fitness Festival format that raised nearly \$160,000 for research and education at the James J. and Joan A. Gardner Family Center for Parkinson's and Movement Disorders, while the educational symposium drew 458 patients, family members and caregivers.



Walkers enjoy the Walk Ahead for a Brain Tumor Cure 5k

- The 2013 Walk Ahead for a Brain Tumor Cure in October attracted more than 2,300 participants from 19 states and raised more than \$231,000. The Midwest Regional Brain Tumor Conference was a sellout that served 170 patients, caregivers and family members from six states.



Kathee Van Kirk and her father, Dr. John Van Kirk, at the Forget-Me-Not Gala

- For the past 22 years, the Parkinson's Disease Support Network of Ohio (PDSNOKI) has provided research funding for Parkinson's at UC. This past year it donated \$50,000 in proceeds from the annual Jerry Wuest-Pete Hershberger Dinner Gala & Golf Classic in support of Parkinson's research.
- Supporters also enjoyed the Shemensi Bowl-A-Thon for brain tumor research, Putting for Parkinson's, the Forget-Me-Not Gala for Alzheimer's disease research and Stroke of Genius.

Telemedicine robot visits P&G

Specialists from the UC Comprehensive Stroke Center recently took "Rosie" the telemedicine robot to Procter and Gamble for an educational session on the signs and symptoms of stroke. **Dawn Kleindorfer, MD**, Co-Medical Director of the Stroke Center, described the signs with the mnemonic F-A-S-T:

- F** – facial numbness or weakness, especially on one side
- A** – arm numbness or weakness, especially on one side
- S** – slurred speech or difficulty speaking
- T** – time to call 911

Dr. Kleindorfer also outlined stroke risk factors and taught P&G employees how to help someone who is experiencing symptoms of a stroke. UC Health can bring this and other free interactive programs on health-related topics to your office. For more information, call (513) 585-5336.



Dr. Dawn Kleindorfer

SAVE THE DATE!

- 5/8 Annual Wine Tasting Event to support the UC Brain Tumor Center**
- 6/21 Midwest Regional Brain Tumor Conference**
- 9/7 Sunflower Revolution Fitness Festival of the Gardner Center for Parkinson's and Movement Disorders**
- 9/26 Forget-Me-Not Gala**
- 10/26 Walk Ahead for a Brain Tumor Cure**

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Remembering Jim Gardner

The UC Neuroscience Institute mourns the passing of James J. "Jim" Gardner, a dear friend whose vision and generosity led to the establishment of the James J. and Joan A. Gardner Family Center for Parkinson's Disease and Movement Disorders. Mr. Gardner, who died Nov. 24, 2013 after a short illness, was a civic-minded leader, a philanthropist and an exemplary and loving caregiver to his wife, Joan, who suffers from Parkinson's disease.



Dr. Fredy Revilla, right, with Jim and Joan Gardner

In 2007 the Gardners made a landmark gift to advance research and treatment programs in Parkinson's disease at the UC Neuroscience Institute. The center was renamed in their honor.

"James Gardner was an exemplary and inspiring person whose actions helped us move research forward and enabled us to reach a larger number of patients with Parkinson's disease," says **Fredy J. Revilla, MD**, Medical Director of the Gardner Center. "He represented our commitment to the tripartite mission of patient care, education and research as well as our commitment to community participation."

Mr. Gardner earned a bachelor's degree in engineering science from Xavier University and spent his career at Cintas Corporation, where he held several management positions. He retired in 1988 as Vice President and General Manager. He was passionate not only about finding a cure for Parkinson's disease, but also about public health and in serving those who were less fortunate than he. In April 2013 Boys Hope Girls Hope Cincinnati named the James J. & Joan A. Gardner Family Foundation its Heart of Gold recipient for their longtime generosity and support.



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NEWSWORTHY

Joseph Broderick named Neuroscience Institute Director; Brett Kissela becomes Chairman of Neurology



Dr. Joseph Broderick



Dr. Brett Kissela

Joseph Broderick, MD, Distinguished Research Professor of Neurology and Rehabilitation Medicine, was named Director of the UC Neuroscience Institute, effective Jan. 1, 2014. Dr. Broderick, who had served

as UCNI's Research Director since 2006, assumed the new position as **John M. Tew, MD**, stepped down from his position as the Institute's Clinical Director. As part of his transition, Dr. Broderick ended his 13-year tenure as the Albert Barnes Voorheis Chair of Neurology and Rehabilitation Medicine, passing the baton to **Brett Kissela, MD, MS**, who became Chair on Jan. 1. Dr. Tew, who co-founded UCNI with **Robert Lukin, MD**, and **Fred Samaha, MD**, in 1998, will assume new roles at the University of Cincinnati College of Medicine and UC Health.

Career milestones



Dr. Cal Adler



Dr. Melissa DelBello



Dr. Danial Kanter

- **Cal Adler, MD**, and **Melissa DelBello, MD, MS**, have been named Co-Medical Directors of the UC Mood Disorders Center.
- **Aram Zabeti, MD**, was hired as Interim Medical Director of the Waddell Center for Multiple Sclerosis.
- **Daniel Kanter, MD**, was named Director of the Division of Neurocritical Care and Medical Director of the Neuroscience Intensive Care Unit.
- **Michael Privitera, MD**, Medical Director of the UC Epilepsy Center, was appointed Second Vice President of the American Epilepsy Society.
- **Maureen Gartner, MSN, NP-C**, earned the title of Nurse Practitioner at the UC Gardner Family Center.

Looking for the latest neuroscience news? Sign up for the UC Neuroscience Weekly Update at <http://ucneuroscience.com/ mailing-list/> or, send an e-mail to cindy.starr@uc.edu