

Gardner Center & Brian Grant launch Cintas Crosstown Shakedown

Brian Grant, the former NBA and Xavier University basketball star with early-onset Parkinson's disease, will partner with the James J. and Joan A. Gardner Family Center for Parkinson's Disease and Movement Disorders in a new event: Cintas Presents the Crosstown Shakedown. The Shakedown will be held April 14, 2012, on the court at Xavier's Cintas Center.

Proceeds from the gala event will be split equally between the Gardner Center and the Brian Grant Foundation. For information about sponsorship opportunities, including table purchases, please contact Gina Weitzel at (513) 558-6112.



Brian Grant and Joan Gardner

Thank you, friends of UCNI!

The summer and fall seasons have featured a record number of fundraising events, many of them staged independently by friends of UCNI. The UCNI physicians, researchers and leadership offer a heartfelt thank you to organizers of the following events:

- The Shemenski Foundation Strike Against Cancer Bowl-A-Thon (Aug. 6), which benefitted the Brain Tumor Center
- The 20th annual Jerry Wuest-Pete Hershberger Dinner & Golf Classic (Aug. 7-8), which raised \$60,000 for the Gardner Center
- Cheering for Charity's Sideline Event (Aug. 20), which benefitted the Memory Disorders Center
- Putting for Parkinson's (Aug. 26), which benefitted the Gardner Center
- Above the 37th Parallel (Sept. 17-18), a one-woman play by Nancy Jones about multiple sclerosis, which benefitted the Waddell Center



Paulette and Rick King, friends of the Brain Tumor Center.

- The Rick King Brain Tumor Research fundraiser (Sept. 24), which benefitted the Brain Tumor Center
- Cheering for Charity's Golf Outing (Oct. 7), which benefitted the Memory Disorders Center



Janet Emery (left) and Priscilla Burt (right), co-founders of Cheering for Charity Foundation, with Memory Disorders Director Brendan Kelley, MD.

To make a donation to any of the centers within UCNI, please call (513) 558-6112 or send your gift to: UCNI Office of Development P.O. Box 670570 Cincinnati, OH 45267-0570

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UCNI benchmark

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- Cerebrovascular Disease and Stroke Center
- Epilepsy Center
- Memory Disorders Center
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- Neurosensory Disorders Center
- Neurotrauma Center
- Gardner Family Center for Parkinson's Disease and Movement Disorders
- Waddell Center for Multiple Sclerosis
- Neuromuscular Disorders Program

New Memory Disorders Center offers hope

Patients and families coping with memory loss have gained an important resource with the official opening of the Memory Disorders Center at the University of Cincinnati Neuroscience Institute. "We're committed to addressing memory disorders and Alzheimer's disease with compassionate care that serves the needs of the Greater Cincinnati area," says Brendan Kelley, MD, the center's Director and an Associate Professor of Neurology. Dr. Kelley's work is supported by the Sandy and Bob Heimann Chair in Research and Education of Alzheimer's Disease, which was established in 2008 with a \$1.5 million gift. "Through a comprehensive evaluation, the center can differentiate between benign forgetfulness associated with normal aging, mild cognitive impairment, and more significant cognitive disturbances such as Alzheimer's disease," Dr. Kelley says.



Brendan Kelley, MD

Continued on page 4

Targeting Parkinson's with symptom-specific exercise

The Parkinson's Disease Exercise Initiative, a new collaboration between the Gardner Center at the UC Neuroscience Institute and the Cincinnati YMCA, is taking aim at a progressive disease by meeting it head-on with progressive exercise. "One gentleman came to us using a walker," says Brian Terpstra, PhD, Director of the Exercise Initiative and a post-doctoral fellow in UC's Department of Neurology. "After 14 weeks of symptom-specific exercise, he no longer uses it."

Continued on page 2



Brian Terpstra, PhD, left, and Exercise Specialist Timothy Kemme assure a safe training environment while a patient performs a balance drill on a CoreTex.

Photo by Mayfield Clinic.

Clockwise, from top: Christi-Anne Beatty, 11, the first female finisher, and her mother, Angeline Beatty; Olivier Rixe, MD, PhD, center, with Jamie Isome, right, and members of Mr. Isome's team; Debbie Penderghast, center, with husband Pat and sister Diane Westerfield.



Walk Ahead
for a Brain Tumor Cure

Hundreds choose to Walk Ahead

Together, the Midwest Regional Brain Tumor Conference and Walk Ahead for a Brain Tumor Cure formed Beacon of Hope Weekend. The second annual 5k walk and chip-timed run – UCNI's largest fundraising event in 2011 – attracted more than 1,600 participants and raised more than \$170,000.

Learning never ends

The UC Neuroscience Institute continued its commitment to public education by staging significant symposia for patients and caregivers during the summer and fall. The Brain Tumor Center co-hosted the Acoustic Neuroma Association's 20th National Symposium, which drew support group leaders from 26 states in July. The Sept. 10 Sunflower Revolution VIII Symposium and Expo drew 542 patients and caregivers, while the 2011 Midwest Regional Brain Tumor Conference attracted 175 attendees from five states on Oct. 1.



Attendees at the Sunflower Revolution Symposium stretch in unison with personal trainer Sarah Krumme Stahr.



Sunflower Victory Award honoree Carol Simons with Gardner Center Director Fredy J. Revilla, MD

Newsworthy



Mario Zuccarello, MD

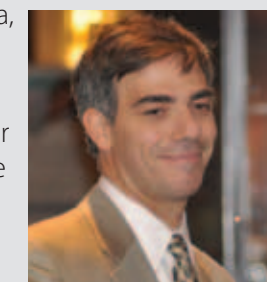
UCNI plays role in quest to conquer vasospasm

Nearly 200 Cerebrovascular experts from 20 nations and six continents took important steps toward developing the first optimal clinical management strategy for vasospasm during Vasospasm 2011: The 11th International Conference on Neurovascular Events after Subarachnoid Hemorrhage, July 21-23, at the Hilton Cincinnati Netherland Plaza. The event was hosted by UCNI and the Mayfield Clinic and UC Department of Neurosurgery. Mario Zuccarello, MD, Chairman and Frank H. Mayfield Professor of the Department of Neurosurgery, and Joe Clark, PhD, Professor of Neurology, were the event's chair and co-chair. The event was sponsored by the Mayfield Education and Research Foundation. Vasospasm is a dreaded complication of subarachnoid hemorrhage, or bleeding stroke. Sometimes called "the second stroke," or "the stroke after the stroke," it is a catastrophic narrowing of one or more arteries in the brain that typically occurs 7 to 14 days after the initial bleeding stroke.

UCNI names Norberto Andaluz, MD, Director of Neurotrauma Center

Norberto Andaluz, MD, has been named Director of Neurotrauma for UCNI. Dr. Andaluz will oversee a regional center recognized for excellence in emergency/surgical care, neurocritical care, clinical and translational research, and academic teaching. Dr. Andaluz, an Assistant Professor of Neurosurgery at UC since 2009, will perform surgery at UC Health / University Hospital and the Veterans Affairs Medical Center. Dr. Andaluz earned his medical degree from Universidad Nacional de Rosario in Argentina. After completing his residency in Argentina, he performed fellowships at the Cincinnati VA and UC.

The heart of the Neurotrauma Center is the 20-bed Neuroscience Intensive Care Unit at University Hospital, which features 24-hour care from physicians and a highly trained nursing and technical staff.



Norberto Andaluz, MD

UC Health

Targeting Parkinson's, continued from page 1

The benefits of exercise training for people with Parkinson's disease are well established and have been a theme during the eight-year history of the Sunflower Revolution, whose annual free symposium and expo was held in September. The Parkinson's Disease Exercise Initiative, which is funded by the James J. and Joan A. Gardner Family Center for Parkinson's Disease and Movement Disorders and the Jerry Wuest-Pete Hershberger Golf Classic, ramps up UC's commitment to exercise and includes a research component.

The comprehensive program includes an array of exercises designed to target specific motor symptoms caused by Parkinson's disease, a progressive neurological disorder that results in a shortened, shuffling stride, freezing in place, decreased speed of movement and a loss of balance. The program adds another facet to the current standard of Parkinson's care, which includes medication and deep brain stimulation surgery.

As patients improve, Dr. Terpstra raises the bar. "You have to push them like they're athletes," he says. "You can't treat them with kid gloves just because they have Parkinson's. If you don't increase the speed on the treadmill, for example, their brain will get used to what they're doing and the adaptations that are helping will subside. So we refer to progression two ways. There is the progression of Parkinson's disease, which will slowly get worse over time. And we try to combat that with the exercise physiology world's concept of progression: the increase of stimulus difficulty over time."

The program's research study is designed to quantify the program's value and to discover whether exercise conveys potential cost reductions to patients. Dr. Terpstra and his team will also measure motor scores, depression, quality of life, overall disability, and quality of gait in study participants who have engaged in regular 60- to 90-minute training sessions over a period of 14 weeks.

For more information about the Exercise Initiative, please call Maureen Gartner at (513) 558-0018.

Drs. Theodosopoulos, Zimmer are leaders in skull-base mapping and tumor removal

UCNI's Lee Zimmer, MD, PhD, and Philip Theodosopoulos, MD, are gaining national stature as pioneers in the anatomy of the skull base, a complex, cavernous area that involves the nasal passages and the lower part of the brain. At the 21st annual meeting of the North American Skull Base Society in Scottsdale, Ariz., they presented an eye-popping seven abstracts, a number matched or exceeded by only a handful of other physicians among the 500 represented.

Dr. Zimmer, Associate Professor of Otolaryngology-Head and Neck Surgery, and Dr. Theodosopoulos, Associate Professor of Neurosurgery, are striving to learn how to remove skull-base tumors more effectively.



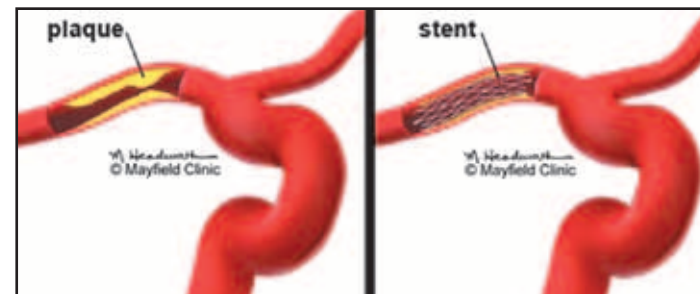
Lee Zimmer, MD, PhD, left, and Philip Theodosopoulos, MD.

Aggressive medical treatment more effective in preventing strokes

For years patients who survived a minor stroke caused by a narrowed artery in the brain have had reason to feel both grateful and uneasy. They have dodged a bullet, true, but now what? They are clearly at risk of a major stroke, which could cause brain damage or death. And a narrowed artery in the brain – a condition called intracranial stenosis – is difficult to treat.

Until recently, physicians were uneasy as well. They did not know the best way to treat narrowed intracranial arteries. Did they prescribe intensive management with medications and behavioral modification? Or did they recommend medications, behavior modification and a stent that props open the artery?

The national, multi-site clinical trial known as SAMMPRIS found the answer quickly enough that the trial was halted last spring. Results were published in September in the *New England Journal of Medicine*, with an accompanying editorial by Joseph Broderick, MD, Research Director of UCNI and the Albert Barnes Voorheis Chair of UC's Department of Neurology.



An intracranial artery compromised by plaque at left; at right, a stent keeps blood flowing freely through the artery. Note the difficult pathway leading to the stent.

Researchers found that aggressive medical therapy alone was preferable, as 14.7 percent of the 451 patients enrolled died within 30 days of treatment with aggressive medical therapy and a stent, compared to 5.8 percent of those treated with aggressive medical therapy alone. Dr. Broderick identified the "tortuous course" a stent must travel to reach its proper place inside the brain and the small diameter of the intracranial arteries as factors in stenting's difficulty.

The study's results provided a wealth of information for the Cerebrovascular Disease and Stroke Center specialists, who are establishing a uniform approach for treating patients who show symptoms of intracranial stenosis. Initial treatment will begin with aggressive medical therapy (including antiplatelet medications) and strong encouragement for patients to control risk factors, including blood pressure, cholesterol, blood glucose levels, body mass index, and tobacco use. Candidates whose symptoms are not controlled by this approach will then be considered for stenting.

Meanwhile, the six patients enrolled in UC's portion of the SAMMPRIS study continue to be followed and cared for by principal investigators Pooja Khatri, MD, MSc, Associate Professor of Neurology, and Andrew Ringer, MD, a Mayfield Clinic neurosurgeon.



Joseph Broderick, MD

Memoir of 25 loving months supports Brain Tumor Center

Kathy Beechem had just been named one of the "25 Most Powerful Women in Banking" by an industry trade magazine when her husband, Pete Nadherny, was diagnosed with a grade 4 glioblastoma, an aggressive and highly malignant brain tumor. Kathy and Pete quit their jobs and spent the next 25 months focused on their love of life, their love for each other, and his health.

Ms. Beechem, a former US Bank executive and Chair of the Brain Tumor Center's Community Advisory Board, has written a memoir to help others travel this difficult but intensely meaningful path. She is donating proceeds from her book, "So Far So Good" (Strategic Book Group, \$16.95), to the Brain Tumor Center.

"Pete had two brain surgeries, participated in a clinical trial, had six weeks of radiation, over 30 MRIs, had blood clots and nearly died once of pneumonia," Ms. Beechem says. "Pete's attitude toward his illness was amazing. He was a fighter, always focused on living, not dying. When people asked how he was doing, he would say, 'So far, so good.'"



Epilepsy surgery put an end to seizures and got Rick onto a smooth new track

Rick's strategy for managing his epilepsy wasn't perfect, but it had worked well enough for most of his career as a theme park project manager who traveled the world. Whether he worked in Australia, Malaysia, Singapore or Germany, his routine was always the same. After arriving in a new city, he would find a local doctor, schedule a CT scan of his brain, show the doctor his previous scans and get a new prescription.

Rick's occasional seizures manifested as temporary blackouts with no dramatic symptoms. Considered "high-functioning" during his seizures, Rick would stare, drifting away mentally, while continuing whatever he was doing. People noticed but shrugged if off, figuring their intensely cerebral colleague was "Rick being Rick."

Then came the seizure that changed everything. It struck suddenly while Rick was driving home from a visit to the veterinarian in Cincinnati, his wife, Sharyn, in the back seat trying to comfort their cat. As Sharyn desperately tried to communicate with him, Rick drove in complete silence, turning right off a highway exit ramp from the far left lane. "I drove about half a mile down the road and pulled into a parking lot, and I didn't remember any of it," Rick says.

He and Sharyn had reached a turning point. They found the Epilepsy Center while searching the Internet, and they took the first appointment they could get with David Ficker, MD, the center's Associate Director.

Mood Disorders Consortium tackles unmet needs

Efforts to better serve those who suffer mood disorders kicked into a higher gear April 29 with the establishment of the Cincinnati Mood Disorders Consortium. The Consortium brings together experts from the Mood Disorders Center at the UC Neuroscience Institute, the UC College of Medicine, Cincinnati Children's Hospital Medical Center and the Lindner Center of HOPE.

"Our mission is to improve the lives of people with mood disorders through improved coordination of key clinical care components, research and education," says Stephen Strakowski, MD, Director of the Mood Disorders Center and Senior Associate Dean for Research at UC. "Mood disorders are immensely disabling and disrupt every facet of a person's life, including physical health."

An estimated 21 million Americans suffer from mood disorders, which include depression and bipolar disorder. In the Greater Cincinnati region, Dr. Strakowski said, an estimated 140,000 people have mood disorders, with only one-third to one-half receiving treatment. "These are major medical issues that our country has failed to address," he says. "Yet these are very treatable conditions."

Dr. Strakowski is Chairman of the Consortium's governing board, and Scott Ries, LISW, is the Consortium's Director.

Thus, after coping with epilepsy for 45 years with the help of physicians who were not epilepsy specialists, Rick finally arrived at a comprehensive epilepsy center. And this time, he would not simply go away with a prescription. Dr. Ficker wanted to know whether Rick was a candidate for surgery, which could halt or greatly reduce his seizures. To find out, Rick underwent tests as an inpatient in the Epilepsy Monitoring Unit, or EMU, and further testing with functional MRI.

"We needed to confirm that the 'seizure focus,' the origin of Rick's seizures, was not close to any of his control centers for language, movement or memory," Dr. Ficker says. "At the Epilepsy Center, we have been perfecting this ability to localize and safely remove the brain area triggering seizures for more than 25 years."

Since his surgery, Rick has been able to cut his medication in half, has been free of seizures for an extended period of time, and has returned to his normal, frenetic workload, traveling to all corners of the planet.

"There are thousands of people who, like Rick, are living and coping with epilepsy and may not realize that there are potential cures for their epilepsy," Dr. Ficker says. "About one in three people with epilepsy have seizures that are not adequately controlled with medications, and about 100,000 Americans with epilepsy are candidates for surgery. Yet only a few thousand a year actually have surgery."



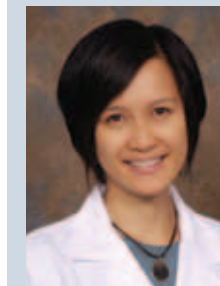
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UCNI Friends' Blog

Good sleep hygiene takes a little work

Consider the word "hygiene," and several things come to mind. Cleanliness and consistency. Soap and toothpaste. Your dentist. Maybe your health teacher from junior high. But how many of us ever utter the words "sleep" and "hygiene" in the same minty-flavored breath? Jennifer Rose Molano, MD, does, and her reasoning could help add a few high-quality zzz's to our lives.



Jennifer Rose Molano, MD

Dr. Molano is a neurologist and sleep medicine specialist with UCNI and the Memory Disorders Center. Sleep hygiene, she explains, is the conscious promotion and preservation of our health by optimizing our ability to get regular, high-quality sleep. It involves the daily discipline and will to build in a de-activating period during the hour before bedtime.

"Our sleep drive is highly influenced by what we do during the day," Dr. Molano says. "The two things that can influence our sleep drive at night are caffeine or taking prolonged naps in the afternoon. If people drink a lot of caffeine in the afternoon or if they take a one- or two-hour nap during the day, their body is a little bit confused when they try to go to sleep at 10 or 11 at night. Their body is getting a mixed signal; it doesn't understand why it's supposed to go to sleep."

The basics of good sleep hygiene include:

- establishing a routine of going to bed at the same time every night and rising at the same time every morning, even on the weekends
- eliminating caffeinated beverages in the afternoon
- limiting afternoon naps to less than 30 minutes a day
- switching to relaxing activities one hour before bedtime
- creating a calm, quiet space for sleep

The last item, turning the bed and bedroom into a place for sleep, rather than for brooding or problem solving, is critical in our harried world. "If you're unable to fall asleep, it's important to condition and train your brain that your bed is only for sleep and other nighttime activities. So that means if you're unable to fall asleep, it's ideal to go out to a different room and engage in a quiet activity like reading or writing in a thought journal. You should not watch TV, play video games or read e-mails from work in the bedroom, especially if you are prone to insomnia."

Good sleep hygiene alone will not resolve every case of disrupted sleep, of course, and Dr. Molano spends a good part of her day helping patients find solutions to more complex sleep-related problems. But for the typical person who doesn't get enough sleep, the rewards of good sleep hygiene can be significant.

Memory Disorders Center, continued from page 1

It was the human cost of Alzheimer's, which afflicts more than 5 million Americans, that motivated the Heimanns to step forward as the donors who helped make the Memory Disorders Center possible. "We want to make a difference," says Ms. Heimann, whose mother has Alzheimer's disease.

She and her mother, only 18 years her senior, were best friends, she says. "I miss my mom. I see her several times a week, but she doesn't know it. She doesn't recognize me, or walk, or talk."

Sandy Heimann is Chairperson of the UC Board of Trustees, Vice President of American Financial Group, Inc., and Vice President of American Money Management and Great American Insurance Company. Bob Heimann is a board member of the UC Foundation and President of Globe Corporation.

While Alzheimer's disease is the most common form of dementia in older adults, more than 100 conditions are associated with cognitive decline, including trauma, substance abuse, heredity, cardiovascular disease, diabetes, brain tumors and vitamin deficiencies. Many of these conditions are treatable, offering the possibility of substantial improvement in cognitive and behavioral symptoms.

The center's physicians also have expertise in diagnosing and treating rare cognitive diseases, such as primary progressive aphasia, frontotemporal dementia and autoimmune encephalopathy. Patients are seen at the UC Health offices in West Chester and Clifton. The Memory Disorders Center also partners closely with the Alzheimer's Association, the Council on Aging of Southwestern Ohio and the Ohio Geriatrics Society.

Soar into Fourscore

Research informs us that all carbohydrates are not created equal. Carbs differ in the extent to which they trigger the production of insulin as a response to glucose (sugar) in the blood. There are complex carbohydrates (whole grain foods) that break down slowly and produce a moderate insulin response, and there are simple carbs (white bread, potatoes, cake) that break down quickly and produce a rapid and elevated insulin response. In a UC pilot study* led by Robert Krikorian, PhD, 23 people with mild cognitive impairment were prescribed either an ultra-low-carbohydrate diet or a high-carbohydrate diet. Those in the low-carb group consumed only 20 grams of carbs a day. During the six-week study, the low-carb group lost weight and inches, experienced a drop in fasting glucose and insulin, and improved their scores on memory tasks. Dr. Krikorian's initial results add to a growing body of evidence that reducing insulin levels by trimming simple carbohydrates can improve our brainspan while lengthening our lifespan.

John M. Tew, MD – Clinical Director, UCNI

* *Neurobiology of Aging*, Dec. 2, 2010

