Another Successful Strain for the Brain Event in 2012

Location for 2013 event changes to Miller Park

The 5th Annual Strain for the Brain 5K run/walk was another amazing success, raising the most funds in the event’s five year history for brain tumor research. So far, we’ve sent a contribution of at least $25,000 to Froedtert Hospital Foundation’s Brain Tumor Fund. These dollars are used in Wisconsin to fund research, support efforts to find a cure, and to create better ways to treat brain tumors. In addition to raising funds for research, Strain for the Brain helps raise awareness of the impact brain tumors have not only on patients, but on their families and loved ones as well.

Along with former Olympian Bonnie Blair, Medical College of Wisconsin physicians Jennifer Connelly, MD, (Neuro-oncology) and Joseph Bovi, MD, (Radiation Oncology), joined the fun in a show of strong support for their patients. Other caregivers were
Successful Strain for the Brain Event  (continued)

I was more than excited this past March when I accepted a nurse position at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center. Prior to my time here, I worked as an inpatient nurse on a medical oncology floor for six years. I have been fortunate to make a smooth transition into the specialty of neuro-oncology, thanks to the people surrounding me on a daily basis. I am incorporating knowledge from my inpatient experience, while learning new information at the same time. Most of the time, you can find me in the Hope Clinic seeing patients or coordinating care over the phone. I strive to work hard and to get to know my patients well, so their time here benefits them during day-to-day life outside the clinic. I’ve truly enjoyed getting to know so many of you who might be reading this.

Renae, RN  
*Neuro-oncology Clinic Nurse*

I’m one of the neuro-oncology nurses in the Hope Clinic. I’ve been an oncology nurse for 20 years. About half of that time, I’ve had the privilege of working with our neuro-oncology patients and families. For the last few years, I’ve also had the pleasure of running our monthly Brain Tumor Support Group. I was born and raised in Indiana and on a whim, moved to Milwaukee a few years after college (Go Valpo!). I loved the city and community and decided to stay. The strength, hope and courage my patients and their loved ones have are what bring me to work every day. I thank them for allowing me to participate in their care.

Dayna, RN  
*Neuro-oncology Clinic Nurse*

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Many people walked in honor of loved ones who lost their lives to brain tumors, including the dedicated friends and family members of a child who had died just days before the event. This was only one of many moving moments in an otherwise fun-filled morning of camaraderie and mutual support. Although Strain for the Brain provides T-shirts, some people wore custom-made shirts dedicated to brain tumor patients for whom they were participating, or to honor the memory of a loved one. Among many enthusiastic individuals joining the fun, we saw Team Benjamin, Battista’s Brain Busters, Brian’s Brainiacs, Mikesnoggin, Go With The Flo, Extumornators, Don’s Survival Celebration (Don Shave), GI Associates Racers, and Nix Tumor Trotters. Participants shared photographs, and everyone enjoyed the mild, early spring weather.

On June 1, 2013, Strain For the Brain will be held at Miller Park (in the parking lot) — a different weekend than in past years based on the Miller Park schedule. The new location will have ample parking, a certified 5K course (as before), easy accessibility, a more central location, and will be less impacted by inclement weather as compared to the lakefront location. There should also be a mile walk option in 2013, for those who don’t want to walk 5K (about 3.2 miles). This event has grown year after year, and organizers are looking forward to the 2013 event at Miller Park. Hope to see you there!
My role at the Medical College of Wisconsin is research related. As an assistant professor in the Department of Radiology, I research new techniques for brain tumor imaging to better monitor treatment efficacy and tumor progression.

On a personal note, I have been studying brain imaging for seven years, first working in functional imaging at Massachusetts General Hospital (MGH) following my master’s degree in physics at the University of Massachusetts and bachelor’s degree in physics at St. Norbert College. After three years at MGH, I decided to return to school, which brought me back to my home state of Wisconsin and to the Medical College of Wisconsin. As a graduate student I worked in the lab of Kathleen Schmainda, PhD, where I first began brain tumor imaging research. My new faculty role continues on this research path and is expanding into other types of cancer imaging not limited to the brain. It is a privilege to work with the clinicians and fellow researchers at Froedtert & The Medical College of Wisconsin, where we can accomplish truly translational clinical research at a level unattainable at other institutions.

Outside of work, I enjoy sailing, cooking, skiing and traveling.

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**Peter S. LaViolette, PhD**  
Assistant Professor, Department of Radiology, Medical College of Wisconsin

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**Studying the Histological Underpinnings of Brain Tumor Medical Imaging**

Peter S. LaViolette, PhD  
Assistant Professor, Department of Radiology, Medical College of Wisconsin

Medical imaging is used in many stages of brain tumor treatment, including diagnosis, surgical and radiation planning, as well as long term clinical follow-up for monitoring treatment response and tumor progression. Medical imaging, specifically magnetic resonance imaging (MRI), has become so standard to clinical care in recent years that it is sometimes neglected as an area needing improvement.

MRI “contrast enhancement” is currently the clinical standard for defining the margins of high-grade brain tumors. This brightening of the MR image occurs when injected contrast agent leaks from the blood vessels into tumor-disrupted tissue. Though this imaging is effective at initial diagnosis, treatment such as surgery, radiation and chemotherapy can also disrupt brain tissue, allowing contrast agent leakage. This complicates clinical interpretation.

At Froedtert & The Medical College of Wisconsin, we are at the forefront of brain cancer MRI research. Our current research studies are aimed at improving detection of infiltrative brain tumor cells into surrounding healthy brain, detecting changes in abnormal brain tumor vasculature, and better assessing tumor response to therapy. Central to these research aims is the creation and calibration of new medical imaging techniques meant to improve our imaging capabilities beyond current technology.

Together with the lab of Kathleen Schmainda, PhD, in the departments of Biophysics and Radiology, we study the histology underlying our newly developed imaging techniques. To accomplish this, we document the location of brain tumor samples surgically removed by Medical College of Wisconsin neurosurgeons Wade Mueller, MD, and Grant Sinson, MD, with state-of-the-art surgical navigation equipment they utilize during surgery. The study has given us the ability to determine underlying histological tumor characteristics that manifest themselves on imaging acquired prior to surgery. This has helped us better understand what the imaging said about the true nature of the tumor removed. Additionally, tumor samples have been banked for future histological study. Mona Al-Gizawiy, PhD, and study coordinators Judeen Richlen and Laura Wollenweber have been instrumental in this ongoing research project.

We are also honored and humbled by several patients who have approached Medical College of Wisconsin neuro-oncologists Mark Malkin, MD, and Jennifer Connelly, MD, about contributing to research. These generous patients have offered to donate their brains to research following their fight with cancer.

Medical College of Wisconsin pathologist Elizabeth Cochran, MD, performed brain only autopsies giving us the unique opportunity to precisely measure and correlate the true histology underlying imaging at an unprecedented level of accuracy. Patients’ willingness to participate has given us the ability to calibrate our imaging techniques to better help future patients and those currently undergoing treatment. This ongoing research project was recognized internationally with an award this past spring at the annual meeting of the International Society of Magnetic Resonance Imaging in Medicine in Melbourne, Australia. Locally, we were given the top award for non-basic research at the annual Medical College of Wisconsin Faculty Research Day. The unique combination of our brave patient population, and the clinicians and researchers at Froedtert & The Medical College have made our brain tumor imaging program truly world renowned.
Support Groups and Events

Froedtert & The Medical College of Wisconsin offer support groups and sponsor events of interest to brain tumor patients and their families.

BRAIN TUMOR SUPPORT GROUP
The Brain Tumor Support Group is for patients and family members who are looking for information and encouragement. Meetings are designed for open discussion of concerns related to brain tumors, with many sessions featuring speakers who focus on a variety of topics specific to this disease.

CANCER CAREGIVERS SUPPORT GROUP
This support group is for friends, family members or others caring for people with cancer. It promotes open communication of feelings, as well as providing relaxation and stress relief. Various topics of interest to the caregiver will also be presented. (This group is made possible by donations to the Froedtert Hospital Foundation.)

YOUNG ADULT ONCOLOGY GROUP
Children's Hospital of Wisconsin offers the Young Adult Oncology Group for cancer survivors (on and off treatment) ages 18 to 39. This group provides survivorship support, education and offers social activities.

CALENDAR

For more information about our support groups, please visit froedtert.com or call 414-805-3666 or 800-272-3666 (unless otherwise noted).

Brain Tumor Support Group
Third Tuesday of each month
6:15 p.m. – 8:00 p.m.
Open discussion: 6:15 p.m. – 7:00 p.m.
Featured speaker: 7:00 p.m. – 8:00 p.m.
Clinical Cancer Center
Conference Room L, First Floor
Jan. 15, 2013
Seizures in Brain Tumor Patients
Linda Allen, BSN, RN, Program Coordinator, Comprehensive Epilepsy Program
Feb. 19, 2013
Neuro-Oncology Question and Answer Session
Mark Malkin, MD, Medical College of Wisconsin Neuro-oncologist

Cancer Caregivers Support Group
Fourth Tuesday of each month
5:30 p.m. – 7:00 p.m.
Clinical Cancer Center
Conference Room J, Lobby Level
Various speakers are offered.

Young Adult Oncology Group
Meets monthly; dates and times vary
Sponsored by Children's Hospital of Wisconsin, The Medical College of Wisconsin and the Froedtert & The Medical College of Wisconsin Clinical Cancer Center
More information: Kristin Bingen, 414-456-4148 or kbingen@mcw.edu.

THE BRAIN STEM VIA E-MAIL

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