



## RESOURCES

MossRehab Resource Net  
[www.mossresourcenet.org](http://www.mossresourcenet.org)

The Center for Outcome  
Measurement in Brain Injury  
[www.tbims.org/combi](http://www.tbims.org/combi)

Brain Injury Association of  
America  
[www.biausa.org](http://www.biausa.org)  
1-800-444-6443

Brain Injury Association of  
Pennsylvania  
[www.biapa.org](http://www.biapa.org)

Brain Injury Resource Line  
1-866-635-7097

Brain Injury Association of  
New Jersey  
[www.bianj.org](http://www.bianj.org)  
1-732-738-1002  
Family Helpline:  
1-800-669-4323

Brain Injury Association of  
Delaware  
[www.biausa.org/Delaware/  
bia.htm](http://www.biausa.org/Delaware/bia.htm)  
1-800-411-0505

Pennsylvania Department of  
Health Brain Injury Helpline  
1-866-412-4755  
TTY 1-877-232-7640

Support Group: Brain Injury  
Empowerment Group  
2nd Monday of each month  
6:00-7:30 PM  
Moss Rehab Elkins Park  
60 E. Township Line Rd.  
Elkins Park PA  
Contact: Roberta Brooks  
(215)456-9901, ext. 69209



## From the Desk of Dr. Hart

For more information about the Moss TBIMS, contact the Principal Investigator, Tessa Hart, PhD, at [thart@einstein.edu](mailto:thart@einstein.edu)

Welcome to the Spring newsletter of the 2007-2012 Moss Traumatic Brain Injury Model System! The TBI Model System program is funded by the National Institute of Disability and Rehabilitation Research to conduct collaborative, longitudinal research with the 15 other centers nationwide who are also centers of excellence for TBI rehabilitation and research. The program also funds studies done here at Moss Rehab Hospital. In each Newsletter issue, we'll highlight one or two projects of potential interest to you, our research participants and colleagues.

### What's in an Address? The GEO-ID Project

Those of you who participate in the Moss TBI Model System know that whenever a Research staff member calls you, they verify your street address and ask you how long

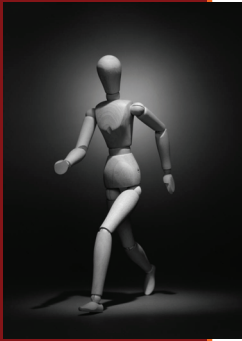
you've lived there. Why? Partly, of course, it's to keep in touch with you. But it's also because we can use street addresses to look up what are called **Geo-ID codes**. Think about the block you live on. Geo-ID codes are groups of blocks ("census tracts") that are in a particular neighborhood. We are working on a project, led by the TBI Model System in Ohio, that will try to find out how the neighborhoods people live in affect the outcomes of their brain injuries.

How can your neighborhood affect you? It turns out that Geo-ID codes are connected to all kinds of surprising health behaviors such as how well we eat, how often we exercise, and whether we are exposed to unhealthy temptations. For example, one study in Chicago found that teenagers who lived far away from supermarkets were more likely to be overweight than teens living

near supermarkets. Why? Because teens who don't have supermarkets close by get their snacks at convenience stores instead, and those kinds of snacks are more fattening. Another study showed that people in neighborhoods where there was a high crime rate were more likely to suffer from depression—even when they had not experienced any crime themselves.

So, "place matters" when we are studying the outcomes of brain injury. We already know that the person's own history, his or her family history, how severe the brain injury was, and how much therapy the person gets are all important. Now, even where the person lives all play a part in how things turn out after TBI. Stay tuned for the results of the GEO-ID study as we try to figure out where this new piece fits into the puzzle!

## MossRehab at Leading Edge in Research and Therapy



*“Ultimately, we want to offer patients the broadest range of cutting-edge therapies to enhance their independence and quality of life after stroke or traumatic brain injury,”*

MossRehab's recent acquisition of the Lokomat — a robotic training assistant consisting of an exoskeleton mounted above a treadmill — may greatly enhance the process of helping patients relearn how to walk

The Lokomat's exoskeleton wraps around a patient's hips, knees, and lower back. Via a computer, it can be programmed to perform precise walking patterns. These repetitive patterns may train the brain and spinal cord to develop alternative pathways to support mobility after injury or illness.

Prior to the Lokomat, patients were assisted by two or more physical therapists who moved their legs manually in a walking pattern. However, this labor-intensive process did not allow for the precise repetition of specified movements

over an extended period. The Lokomat allows the patient to walk in a consistent manner and speed for a much longer period of time resulting in a significantly larger number of movement repetitions.

“The Lokomat was developed primarily for treating patients with spinal cord injury,” says Alberto Esquenazi, MD, director of the Gait and Motion Analysis Laboratory and Regional Amputee Center. “There are less than 100 centers using this technology in the world, and we're the first in our region. We'll be investigating a newer use of this technology to assist patients after stroke or traumatic brain injury.”

After stroke or traumatic brain injury, patients may have difficulty with symmetrical motion, being weaker on one side. Be-

cause the Lokomat can be precisely programmed, patients can be encouraged to walk in a symmetrical fashion, with assistance or resistance applied as needed. The team at MossRehab has developed and submitted a research proposal to determine the effect of Lokomat therapy in patients with TBI.

According to Dr. Esquenazi, the significant investment in the purchase of the Lokomat, and the days spent training staff, are reflections of MossRehab's commitment to development and implementation of new tools for rehabilitation.

“Ultimately, we want to offer patients the broadest range of cutting-edge therapies to enhance their independence and quality of life after stroke or traumatic brain injury,” he says.



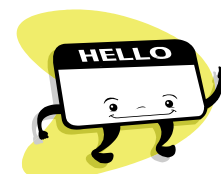
### Where Are They Now?

### Five Years Later: Robert (Bob) Thorpe

The Moss TBI Model System recently caught up with 5-year participant Bob Thorpe, who sustained a severe traumatic brain injury in 2004 after falling from a ladder. Bob was a carpenter who devoted more than 30 years to mastering his trade. Raising four children besides, he led a very active life. Since his injury, Bob can't work at his previous job. He now volunteers 2 days a week by helping out in the therapy gyms on the Spinal Cord and Brain Injury floors of MossRehab. Bob feels that this replaces some of the productive activity that he previously enjoyed. He also said of his volunteering that “it is very rewarding to give back to the people that helped me.” In his spare time, Robert likes to watch CSI, Law and Order, and reruns of MASH. In the future he wants to continue to volunteer, and to plan a trip to Disney World with his family once a year.

Thanks for letting us share your story, Bob!

# SAVE the DATE!



## Empowerment

### Group

## SUMMER CELEBRATION

The Brain Injury Empowerment Group continues to meet monthly. Its annual SUMMER CELEBRATION will be held on **Monday June 8th** from 6-8pm at the Elkins Park campus. Come and share your news and catch up with old friends. Please bring a side dish or dessert to share. Need more info? Call Roberta Brooks at 215-456-9901, ext 69209.

## For Professionals

Friday October 2, 2009

Drucker Brain Injury Center is planning its 4<sup>th</sup> annual conference at the Pennsylvania Convention Center. Titled **The TBI Rehab Continuum: Critical Care to Community Re-entry**, the conference will have information on the breadth of services for individuals who have sustained traumatic brain injuries. The afternoon program will feature two tracks - treatment interventions and care management. The intended audience is Clinical Case Managers, Social Workers, Registered Nurses (Rehabilitation and Trauma), Physical Therapists, Occupational Therapists, Psychologists and Disability Advocates.

## For Consumers & Families

Saturday, November 7, 2009

The Moss Traumatic Brain Injury Model System will conduct its 3<sup>rd</sup> day-long conference for people with brain injury and their families in downtown Philadelphia. Plan to join us for "**Connections for Life After Brain Injury.**" The keynote speaker will be **Chris Nowinski**, an All-Ivy Harvard football player and World Wrestling Entertainment Professional whose career was ended in 2003 by a concussion. Chris is the author of *Head Games: Football's Concussion Crisis*. Also at the conference: how-to workshops on meditation and T'ai Chi, sports and recreation resources, medical matters, discussions For Caregivers Only, relationship building, employment, and more! For more information, go to [www.mossrehabconference.com](http://www.mossrehabconference.com)



Conference brochures coming soon by ground mail and e-mail. Or, check [www.mossrehabconference.com](http://www.mossrehabconference.com)

## Websites to Watch!

Sit at your keyboard and type [www.Brainline.org](http://www.Brainline.org) into your browser...

Sponsored by the Defense and Veteran's Brain Injury Center, Brainline.org offers topics related to living with a brain injury for individuals, families and professionals. There are resource listings, a calendar of events, personal stories, and video clips that are easy to access. Add this site to your 'favorites' and you'll have an easy way to keep up with activities in the field of brain injury.

## Regional Balance & Vestibular Center Update

In the last issue, we included information about the services available in the Regional Balance and Vestibular Center, a partnership with AEMC's Department of Neurosensory Sciences and Moss Rehab. Please note this additional detail about accessing services in the Regional Balance and Vestibular Center:

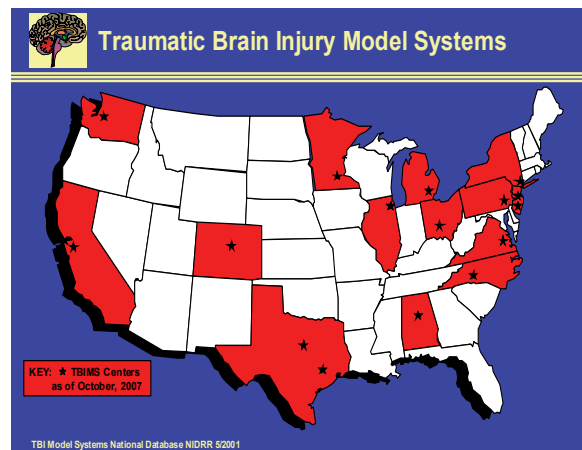
- ◆ To establish a diagnosis, request an appointment with the vestibular neurologist by calling 215-456-7190.
- ◆ If diagnostic testing has already revealed a diagnosis, request an appointment with a Balance Center vestibular rehabilitation therapist by calling 215-663-6354.

MossRehab at Elkins Park Hospital  
60 E. Township Line Road  
2<sup>nd</sup> Floor West - MRRI  
Elkins Park, PA 19027  
ATTN: Kelly Bognar



## Study of a Drug For Disorders of Consciousness (DOCs)

Recently, there have been several reports of individuals with DOCs (vegetative state, minimally conscious state, sometimes referred to as “long-term coma”) regaining consciousness in response to receiving the common sleeping drug zolpidem (Ambien). The Moss Rehabilitation Research Institute is conducting a nationwide clinical study, funded by the National Institute on Disability and Rehabilitation Research, to see how often this type of positive response occurs. An additional focus of the study is to understand why some individuals with DOCs respond to zolpidem, while others do not. If your family member was diagnosed with a DOC more than 4 months ago, is at least 18 years of age, and is medically stable, he/she may be eligible to participate in this study. Participants will be provided study medication, screenings, and testing at no cost. For more information, please contact Riya Rajan, the study coordinator, at 215-663-6456 or [participants@einstein.edu](mailto:participants@einstein.edu).



### The Moss TBI Model System

- ◆ The National Institute on Disability and Rehabilitation Research has designated MossRehab as a Model System of Care for traumatic brain injury since 1997.
- ◆ The TBI Model System program seeks to improve lives by creating and disseminating new knowledge about the course, treatment and outcomes of TBI.