

# **Brain Injury Awareness!**

Hello from the University of Washington Traumatic Brain Injury Model System.

As we come to the end of *Brain Injury Awareness Month*, we wanted to use the Spring 2022 edition of *TBIMS Updates to* reflect on some of our research projects this cycle. For our *Who's Who?* column we shine a spotlight on our own Dr. Robert Fraser and the vocational rehab program he leads. Also, we hope you will enjoy reading some excerpts from a shared story by Tillie Keaney: "The Day my Life Changed Forever." This edition also includes some physical activity resources available to people who have had a brain injury. And a big congratulations to the latest Adler Giersch Endowed fund awardee, Dr. Maggie McGrath; we include an overview of her project focused on the usefulness of routine CT scanning for patients who had an intracranial bleed and were started on anti-clotting therapy.

So please sit back and enjoy the reading!

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# **UW TBI Model System Research Updates**



As the UW TBI Model System winds down on another 5-year cycle and awaits the next grant, we wanted to share some highlights of our projects since 2017 to now:

**Driving After TBI** — In this multi-site study people were asked a series of questions at two different time points to determine when/if they returned to driving, the reasons behind their

choice, amount they drive, and types of driving they do (highway, nighttime, etc.). We also asked



if there have been negative events (such as crashes or tickets). Forty newly enrolled people were asked questions about their driving prior to injury, and then at 1 and 2 years after injury to see how things changed over time. Another 40 people were asked these questions at one scheduled Model Systems follow-up. Across all of the sites included, 706 people were enrolled, and of those 78% returned to driving (of those, 40% by 6 months and 91% by 2 years after injury); 14% discontinued driving after restarting. Two papers have already been published (see our <u>website</u> for details).

**Cognitive Trajectories** — This multi-site study examined how thinking abilities change over time. People in Model Systems completed a set of memory and thinking tests during and

between their usual follow up calls to give us 3 years in a row of information. This data will help us learn about how thinking skills change across each



year. We were 1 of 11 Model System sites that helped to enroll around 450 people. Analysis of this study will begin in April or May.

**TBI-CARE** — Our local study from the last cycle enrolled 158 people to compare an approach called collaborative care to treat pain compared to the usual care people receive in the Rehab Clinic. People were randomly assigned to two groups. Half the people received calls from a TBI Care manager to work with their clinic care team to address pain and use additional methods like mindfulness and breathing techniques. We are just beginning to look at the results, but they look very promising!

ACCELR8 — This multi-site study examined

people's level of physical activity after TBI, and the relationship between that level and things like mood, sleep, and thinking



abilities. Four Model System sites enrolled people during or directly after inpatient rehabilitation and they were asked to wear a FITBIT like device for 7 days at 3 different time points: discharge, 6 and 12 months post. and answer questions about their physical activity level. We enrolled 180 people across all sites, and will be done collecting data by the end of June.

While not part of our TBIMS grant, the multi-site **BRITE** study that includes 6 TBIMS sites across the country completed enrollment in August 2021, and enrolled a total of 936 patients and 597 caregivers! This study is comparing "usual" discharge care to usual care *plus* intervention calls from a TBI Care

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# **Resources for Physical Activity**

### FLASH (Fun Leisure Access Savings and Health) - WEBSITE

Discount and ID card for adults with disabilities in King County. The FLASH Card provides discounts on goods and services from businesses, recreational facilities and events.

#### Outdoors for All — WEBSITE

**AMERICA** THE BEAUTIFUL

ACCESS

The Outdoors for All Foundation transforms lives through outdoor recreation, delivering adaptive and therapeutic recreation for children and adults with disabilities. Programs include: snowboarding, snowshoeing, skiing, cycling, hiking, river rafting, kayaking, day camps, rock-climbing, and more!

#### Access Pass to National Parks - WEBSITE

A free, lifetime pass - available to U.S. citizens or permanent residents of the United States that have

been medically determined to have a permanent disability (does not have to be a 100% disability) - that provides admittance to more than 2,000 recreation sites managed by five Federal agencies.

WTA ADA-Accessible Hikes — WEBSITE A list of ADA-accessible hikes in Washington .

Traillink Wheelchair Accessible Trails — WEBSITE

A list of wheelchair-accessible hikes in Washington State.

### YMCA of Greater Seattle — WEBSITE

The YMCA provides financial assistance for people who cannot afford the full cost of membership.

### **Research Updates, cont.**

Manager to help with needs for the first six months after discharge from inpatient rehabilitation. More to come from this study!

LE-TBI — Last but not least, the ongoing LE-TBI study is learning more about the long term effects of TBI through MRI, blood draw, and assessments and making wishes known for brain donation. We have completed 147 visits. We enroll people who are participants in the UW TBIMS and we plan to bring individuals back for a 2nd and maybe a 3rd visit. Recruitment for this study has improved after a challenging scheduling period in January and February, mostly caused by the Omicron spike in COVID

If you are interested in participating or learning more about the LE-TBI study, please contact Laurie at lpeabody@uw.edu or 206-744-3607.





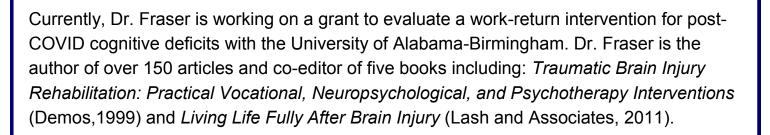


brain injury

project

# Who's Who?

Robert (Bob) Fraser. PhD, CRC is a rehabilitation psychologist and certified rehabilitation counselor and a Professor Emeritus in the Departments of Rehabilitation Medicine, Neurology and Neurological Surgery. He directs the Neurological Vocational Services Unit (more on this program in the next story). Dr. Fraser conducts research on work access and job retention for workers who have neurological disabilities. In addition, he has spent many years as a part of the UW TBI Model System research team.



# Vocational Rehab Program: NVSU



At some point after a brain injury many people ask if, and how soon, they may be able to return to work. Returning to work can be

a big step forward in getting back their identity.

help. The Neurology Vocational Services Unit (NVSU), housed within Harborview Medical Center, has been matching job applicants to companies in the Northwest for more than 45 years. The people they work with may have epilepsy, multiple sclerosis, history of a stroke, autism, but the largest group seeking services from the unit are people who have had a TBI; one thing they have in common is that they all want to find or keep a job.

evaluation which asks about Looking vocational interests, work values, for a job? academic The NVSU abilities. may be able to

emotional status / personality and brief

A visit to the NVSU may include an



cognitive testing (known as a

neuropsychological assessment) to measure attention, memory, and thinking. After a TBI, people hold onto many strengths, and may find new ones, but they may also have some new challenges.

Continued on next page

### Vocational Rehab Program, cont.

The evaluation is important to helping to understand what these are. The initial evaluation and often a "job tryout" (also known as a community-based assessment)

the Job Accommodation Network out of West Virginia University. These resources are invaluable not only for returning to work and accommodations

help everyone involved to understand any accommodations that may be needed to be in place prior to starting. This can involve someone working up to 215 hours in the private or nonprofit sector over a several month period as part of the program. The purpose is to find out how the job works for the employee as well as the employer.

The NSVU assists the employer as well as the person starting the job to understand what accommodations are needed for the job to be successful.

that may be needed at home.



The NSVU receives its funding from the State Department of Vocational Rehab as well as from donations. The job-tryouts are made possible by a 1993 disability waiver classifying TBI as a disability. The NSVU helps to educate for-profit

The COVID-19 pandemic changed the working environment by expanding some opportunities to work remotely. While most

jobs are still inperson, some can be done remotely, and some are a combination of the two. The **NSVU** assists



both the employer as well as the person starting the job to understand what accommodations are needed for the job to be successful. The American Disabilities Act (ADA) can require employers to make reasonable accommodations for workers who have disabilities. Two resources the NSVU uses to promote workplace accommodations are the UW Assistive Technology Lab and

businesses about this waiver to allow them to participate. NSVU also helps people navigate online job searches using LinkedIn, FlexJobs, Zip Recruiter, etc., and polish up resumes and online profiles. They encourage attendance at their weekly job club to learn from others and get support in finding about one's ability to return to the work force.

The NVSU assists people with neurological challenges to qualify for vocational rehab funding. Currently there is no wait-list for the service so it's a great time to reach out!

### For more information about the NVSU program, contact:

Dr. Robert Fraser at rfraser@uw.edu or 206-744-9130.

# **Shared Stories of Hope and Resilience**

While in rehab I

that's all by brain

had the energy to

comprehend. I was

convinced that I

could speak the

entire time, just

chose not to.

skull flap reattachment

remember I had just

surgery at that time, so

I was extremely confused. I did not

come back from

### Excerpts from "The Day My Life Changed Forever" by Tillie Keaney

Tillie started speech therapy in the UWMC outpatient clinic in 2021, and shares some of her journey with us.

May 29th, 2021 was the worst

day of my life -- I hydroplaned

struck on the passenger side by

another vehicle. I survived with

a broken rib, fractured pelvis,

punctured lung and pancreas,

and a serious traumatic brain

the entire course of my life. I

injury (TBI). That day changed

was supposed to be headed off

to college the fall of that year.

into oncoming traffic and was

in my damaged mind I thought that maybe I would mainly watch had fallen, bumped my head, and just cartoons because not remembered.

> Inpatient Rehab: I was then admitted to an inpatient injury rehab facility. It would still be a week before I spoke. When I did start speaking, I still couldn't remember the day of the week, month, the closest holiday, and other simple sequencing.

**Memory:** Over six months later I still have sequencing issues, like not knowing what comes directly after the letter K or the number 7. I have to go through the entire alphabet and ascending order of numbers until I get to the letter or number I need. I quickly learned to associate everything I had to remember with something else that was easier for me to remember. I'll be talking and if someone interrupts me or asks a question about what I'm saying, I can't always remember what I was talking about.

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Do you have a story you would like to share? Do you have guestions about TBI? Do you have any feedback about this newsletter? We would love to hear from you! Please email our team. Email: uwtbi@uw.edu

**Trauma Surgical ICU:** I was airlifted to the hospital and admitted to the Trauma Surgical Intensive Care Unit (TSICU) where I stayed for 4 weeks. I initially couldn't breathe on my own. I was intubated and hooked up to a ventilator, and later used a trach in my windpipe. Due to the extreme swelling of my brain, they removed

a section of my skull so that my brain could swell without doing as much permanent damage. When I awoke from the







# Brain Health & Wellness Classes 2019-2022

Starting in 2019, the UW TBI Model System partnered with the BIAWA on their Brain Health & support can often feel challenging, and many Wellness series to bring classes presentations by experience stress, isolation, and burnout. the University of Washington clinical and

Adjusting to disability and providing caregiving Importantly, especially during the COVID-19

research staff. Classes are held on-line which allows more people, some of whom live far away, able to attend virtually. Attendance requires a smart phone or computer and internet access.

2019- Classes were offered inperson at Harborview Medical Center about every other month.

Topics included complementary and alternative medicine, relationships and communication, mindfulness, and talking to people about having a brain injury.

2020 – February 2020 was the last in-person class and focused on nutrition and exercise. Also were classes on self-advocacy, managing depression and the ABCs of problem solving.

2021 - Continued online with some new and some popular repeat classes including participating in research studies, research about cannabis and brain injury, headaches after TBI, acupuncture and brain injury, and returning to work with the assistance of vocational rehab.

### **JANUARY 2022**

Caregiver Mental Health Jonathan Tsen, M.S.

Family caregivers represent nearly 20% of the US population, providing care and support to an adult person with chronic illness or disability.

You can find slides from all of these classes and more on the UW TBI Model System website

https:// tbi.washington.edu/infoforum-events/

pandemic, caregivers have been at a higher risk of experiencing depression and suicidal thoughts. Potential risk factors for caregiver mental health and ways to help improve psychosocial well-being were discussed.

# **FEBRUARY 2022**

Fatigue and Brain Injury

Nick Dasher, Ph.D.

Fatigue is a common complaint after a brain injury and while it can be partially related directly to the type and severity of the brain injury, it is most often perpetuated by deconditioning and lifestyle factors. This class discussed the mechanisms contributing to fatigue after brain injury and behavioral treatments to help mitigate their impact and improve quality of life.

### \*\* UPCOMING \*\* April 27th

Talking to Others about Brain Injury Amy Starosta, Ph.D.

Having a brain injury can be a life changing event, not only for you, but also for the people in your life. At times it can be challenging to talk about your injury. In this class, we will focus on strategies for determining what details to share for different social setting and the people in

your life. **Register here** 



# Adler Giersch Fund Awardee: Maggie McGrath, MD



The purpose of the Richard H. Adler Attorney at Law & Adler Giersch Law Firm Endowed Fund is to provide support to research more effective evaluation

and treatment protocols for those with traumatic brain injuries given the long term cognitive, behavioral, and physical consequences and impairments which may result from the underlying trauma.

Congratulations to Maggie McGrath, MD whose proposal "<u>Utility of routine</u> <u>surveillance head computed tomography</u> (within 24 hours) after initiating therapeutic anticoagulation in patients with intracranial hemorrhage" was selected to receive the \$7500 award. Dr. McGrath's project is focused on the utility of routine head imaging for patients with a history of intracerebral hemorrhage who are started on anticoagulation (anti-clotting)



medication. She hopes to identify a group of patients that the selective imaging makes sense to follow, in terms of being less expensive and less exposure to radiation for patients when medically appropriate and safe.

Dr. McGrath (Maggie) was born and raised in Missoula, MT where she



attended the University of Montana and received her degree in biochemistry.

She then attended the University of Washington, where she

graduated with honors in 2019 prior to starting her neurological surgery residency.

Outside of work, Maggie enjoys spending time with her husband and 2 dogs (Mosely and Rollins). They love all things outdoors and are avid runners,

hikers and skiers.

We look forward to learning more as Dr. McGrath dives in to this important research!





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# **Shared Stories, cont.**

Things are constantly on the tip of my tongue and it takes either a Google search or an association for me to think about it. Still to this day, there are many things I cannot remember. I don't remember where I was going when I got in my accident. I will probably never remember the actual accident. I'd like to think that's my brain's form of protection. While in rehab, there were certain things I was confused about because I just couldn't remember them.

THANK YOU HOSPITAL WORKERS People ask me, what have you learned from this experience? Don't take anything for granted because it could be gone in an instant! Without the healthcare workers and the care I received, I would not be here today. My recov-

My recovery is

due to a mix of

doctors.

therapists,

and my own

strength and

determination.

ery is due to a mix of doctors, therapists and my own strength and determination.

**Update:** Tillie continues her outpatient rehab with UW Medicine. She will be starting a part-time job very soon and recently learned she will be able to return to school this fall.

### Thank you Tillie for sharing your story with us!

The Brain Injury Alliance of Washington (BIAWA) offers helpful information and resources.

These resources include how to attend an online support group as well as a podcast with episode that cover educational topics, provide comfort, and offer strategies to get through this time.

Contact the BIAWA Resource Line 1-877-982-4292



Latest Podcast Episode <u>LISTEN HERE</u>



### **UW TBIMS Equity Statement**

The Traumatic Brain Injury Model System team does research to improve the health of people who have had traumatic brain injuries. Structural racism, which is any policy or procedure that contributes to inequality, can make people sicker - especially people who are Black, Indigenous, and other People of Color, as well as LGBTQ+ communities, people with low income and those with disabilities. We are committed to improving the lives and well-being of people who have experienced traumatic brain injuries, and that includes using our research to increase awareness of the effects of racism.



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> NATIONAL INSTITUTE ON DISABILITY, INDEPENDENT LIVING, AND REHABILITATION RESEARCH

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