

IMPROVING LIFE AFTER TRAUMATIC BRAIN INJURY

At UW Medicine

MANY INDIVIDUALS who have sustained a traumatic brain injury (TBI) — as a result of trauma, military service, participation in sports, brain surgery or stroke, among other potential causes — also experience psychological and behavioral problems. Unfortunately, more than 50 percent of people with moderate to severe TBI suffer from major depression, and more than 25 percent suffer from significant anxiety.

These and other serious conditions — including post-traumatic stress disorder (PTSD), irritability, cognitive impairment, pain and substance abuse — often result in long-term disability and can make it difficult for people with TBI to maintain employment and social relationships.

At UW Medicine, we intend to reduce the emotional suffering caused by TBI, and we are looking for partners to help us with this important work.

An Undertreated Problem

Psychological and behavioral problems can severely impede recovery and functioning after TBI, so early diagnosis and treatment of these conditions are critical to maximizing a patient's quality of life. Unfortunately, most patients do not receive adequate care for these problems. Fewer than half seek treatment for their depression. Community resources are limited and fragmented, and primary care providers are generally unprepared to treat these problems.

By conducting research to determine the best way to deliver care, and by enhancing access to that care, UW Medicine faculty are poised to help people suffering from TBI and to help the physicians, family members and friends who care for them.

Breaking Down Barriers to Treatment

UW Medicine possesses state-of-the-art clinical and research expertise that few other programs can claim, and, with investment, our faculty members intend to transform the standard of care for those who suffer from TBI.

Conducting Important Research

TBI does not affect everyone in the same way; we want to **identify the factors** that put people at high risk for developing psychological and behavioral problems and **develop methods** that can more accurately measure the extent and severity of these problems.

Our researchers are also investigating **flexible treatment strategies** for a broad spectrum of psychological and behavioral issues — such as depression, anxiety, PTSD, anger and irritability, cognitive impairment, pain, insomnia and substance abuse — as standard approaches to these conditions may not work well for people with brain injuries.

This research — and the treatment strategies that result — may benefit other people suffering from **common brain disorders**, including stroke, brain tumors, epilepsy, multiple sclerosis, Alzheimer's disease or Parkinson's disease.

A Team Approach to TBI

UW Medicine faculty take a multidisciplinary approach to treating TBI, forming collaborations between experts in our psychiatry, rehabilitation medicine, neurology and neurological surgery departments and at two of our teaching hospitals, UW Medical Center and Harborview Medical Center. We also work with experts from the VA Puget Sound Health Care System and Seattle Children's, among other organizations.

These collaborations have resulted in innovative programs such as Life Improvement Following Traumatic Brain Injury (LIFTcare.org), which focuses on combating depression following TBI, and CONTACT for TBI, which focuses on increasing access to effective TBI treatments through telemedicine.

Philanthropic support will fund the following priorities:

- Ambitious research projects, faculty and staff time, and equipment and supplies: \$500,000.
- Support for pilot research that will lead to larger, federally funded projects: \$275,000.
- The development of fellowship programs to recruit and train the next generation of TBI clinicians and researchers: \$250,000.
- Enhanced capacity to provide state-of-the-art clinical care to more people: \$300,000.

Developing a Telemedicine Program

Providing access to care is a crucial piece of the puzzle for patients with TBI, and developing a telemedicine program will help patients and their physicians enormously.

Telemedicine, which employs mobile and video conferencing technology, will allow physicians and patients in rural and remote areas to consult with experts in TBI and neuropsychiatry at UW Medicine. Faculty at UW Medicine already employ telemedicine services to help rural physicians treat chronic pain, hepatitis C, stroke and other conditions. Providing a telemedicine service for neuropsychiatric care for TBI will help patients recover while enhancing resilience and promoting self-management.

Philanthropic support will fund the following telemedicine priorities:

- Research, faculty and staff time, infrastructure and technology: \$500,000.
- The development of in-person and remote programs that will train other clinicians around the country in providing telemedicine treatments for TBI: \$150,000.
- Enhanced clinical telemedicine capabilities for reaching patients and families who are suffering from the emotional consequences of TBI: \$250,000.

Join Us

Your support can help transform the standard of care for TBI. To learn more about the projects described in this document, please contact James Policar, director for philanthropy at UW Medicine Advancement, at 206.221.7526 or policar@uw.edu. Thank you for your interest in our work.

Key Faculty

Jesse Fann, M.D., MPH

UW Professor, Department of Psychiatry and Behavioral Sciences

UW Adjunct Professor, Department of Rehabilitation Medicine and the Department of Epidemiology Director, Psychiatry and Psychological Services, Seattle Cancer Care Alliance

Dr. Fann has been a leading neuropsychiatrist and researcher in the field for more than 20 years and leads the LIFT Program (see sidebar). His research on the epidemiology and treatment of psychological and behavioral aspects of TBI has earned him honors such as the Academy of Psychosomatic Medicine's Research Award and America's Top Doctors designation. He has served on important national committees such as the Psychological Health Advisory Board of the Department of Defense and the editorial board of the journal *Brain Injury*.

