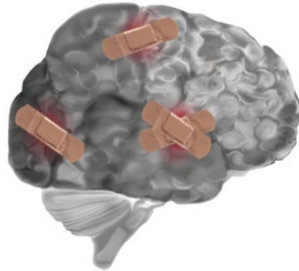




**UNSW**  
SYDNEY

# The manifestation of Traumatic Brain Injury (TBI) on the tear film and ocular surface



**Investigators: Zewdu Bizuneh, Maria Markoulli, Eric Papas, Sultan Alotaibi**

Researchers at UNSW Sydney are looking for people to help study how Traumatic Brain Injury (TBI) affects the tear film and ocular surface.

## What is known about TBI?

- ❖ TBI is a sudden injury to the brain from an external source.
- ❖ It can result from mild injury to permanent disability or death.
- ❖ Can occur in all age groups, but children, young adults, and the elderly are most vulnerable.
- ❖ The most common causes are falls, car accidents, violence, sport activities, and blasts.
- ❖ Globally, around 60 million TBI's occur and at least 10 million people are hospitalised or die annually
- ❖ It's a huge community problem costing estimate of \$8.6 billion in Australia alone
- ❖ Alzheimer's, Parkinson's disease, epilepsy, and dementia are long term consequences of TBI.
- ❖ Although expensive, invasive, and time-consuming; CT, MRI and lab tests are the most common ways to diagnose TBI.

## What's the question???

- ❖ We are looking for a way to diagnose TBI using tear samples which is easy, cheap and non-invasive alternative.
- ❖ **Ethics approval: HC230062**

**Name: Zewdu Bizuneh and A/Prof Maria Markoulli**

**Email: [z.bizuneh@unsw.edu.au](mailto:z.bizuneh@unsw.edu.au), [m.markoulli@unsw.edu.au](mailto:m.markoulli@unsw.edu.au)**

**Phone no: 0492827708/0419810121**