Identifying Biomarkers for Optimizing TBI Studies

AWARD AMOUNT: $94,693

THE TEAM

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THE PROBLEM

The lack of biomarkers for monitoring TBI recovery and response to therapy remains a critical barrier to successful clinical trials of neuroprotective agents for TBI treatment.

100% of all neuroprotective agent clinical trials have failed

Lack of TBI biomarkers is a major progress barrier

No diagnostic tests for assessing TBI response to therapy

THE SOLUTION

A point-of-care device that measures brain biomarkers to monitor and treat TBI

- Enables optimized doses and dosing schedules in trials
- Allows for personalized touch to TBI treatment
- Useful for triaging high-risk patients after surgery

THE TECHNOLOGY

A point-of-care device that measures protein and metabolite biomarkers of brain injury in order to assess patient response to TBI treatment.

The team will establish an association between protein and metabolite biomarker levels and key measures of TBI severity such as ICP, cortical impact lesion size, percentage of edema, and neurobehavioral outcomes.

They will also develop a platform for rapid measurement of the identified metabolites that will generate quantitative results within 15 minutes.