Using Dasatinib to Treat Traumatic Brain Injury

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ABSTRACT

Researchers at the University of California, Davis have developed a novel approach to treating traumatic brain injury (TBI) and other acute neurological disorders using the FDA-approved cancer drug, dasatinib.

FULL DESCRIPTION

This invention leverages dasatinib, an FDA-approved kinase-targeted cancer drug, for the treatment of traumatic brain injury (TBI) and acute neurological disorders. By repurposing an existing drug dasatinib, this approach offers a quicker, cost-effective alternative to the lengthy and expensive process of developing new drugs. The research demonstrates that dasatinib can reduce cognitive deficits and alter kinase phosphorylation in TBI models, providing a promising therapeutic avenue for TBI patients.

APPLICATIONS

- Treatment for mild, moderate, and severe traumatic brain injury.
- Therapeutic applications in acute neurological disorders.
- Potential use in reducing systemic inflammation and protecting the brain post-TBI.

FEATURES/BENEFITS

- Cost and time-efficient drug development through repurposing.
- Reduces risk of failure due to extensive pre-existing safety data.
- Translates to clinical trials and healthcare integration upon FDA approval.
- Decreases cognitive deficits post-TBI. Alters phosphorylation states of critical kinases involved in TBI pathology.
- Lowers high costs and lengthy timelines associated with new drug development.
- Meets need for effective TBI treatments that can quickly reach patients.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20250295659	09/25/2025	2021-920

INVENTORS

- Liu, DaZhi
- Lyeth, Bruce G.
- Martin, Ryan M.
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OTHER INFORMATION

KEYWORDS

acute administration, cognitive deficits, dasatinib, drug repurposing, kinase inhibition, neurological disorders, safety data, traumatic brain injury

CATEGORIZED AS

- **Medical**
  - Disease: Central Nervous System
  - Therapeutics

RELATED CASES

2021-920-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Using Abemaciclib to Treat Traumatic Brain Injury

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