WashU

Office of Technology Management

METHOD THAT USES TAURINE AS A STORAGE SUPPLEMENT FOR PLATELET CONCENTRATES

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Value Proposition: *Composition of matter that uses taurine to improve cold platelet storage shelf life and functionality.*

Technology Description

Researchers at Washington University in St. Louis have developed a method to cold store platelets using taurine supplementation. There is a crucial need in the field of platelet transfusion medicine for novel platelet concentrates with better efficacy and safety. Currently, in the United States, platelet concentrates are stored at room temperature. These room temperature stored platelets (RT-PLT) are metabolically active, resulting in a rapid decline in function by the end of their short shelf life.

This method introduces taurine into the storage process to provide a platelet storage solution that improves platelet shelf life and physiological functionality of platelets.

Stage of Research

Demonstrated through metabolomics that taurine metabolism is significantly linked to the degradation of platelet performance during cold storage. As such, the intervention is to bolster taurine metabolism by supplementing this compound as either part of the storage solution or as something to be added to the platelets immediately before use in patients.

Publications

- Susan M. Shea…Philip C. Spinella, Kimberly A. Thomas. Cold-stored platelet hemostatic capacity is maintained for three weeks of storage and associated with taurine metabolism. Journal of Thrombosis and Haemostasis, Volume 22, Issue 4, 2024.

Applications

- Platelet storage

Key Advantages

- **Simple and improves challenges with platelet storage**
- **Improves cold platelet shelf life and functionality**

Patents

Patent application filed.