Biodegradable Drug-Eluting Surgical Matrix

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SUMMARY

Surgical gastrointestinal resection is an essential procedure for treating various conditions. However, it can lead to complications, primarily due to challenges in restoring continuity through anastomosis.

This project aims to develop a biodegradable drug-delivery matrix that can be applied during surgery to enhance tissue regeneration and prevent anastomotic leakage. This solution seeks to improve upon conventional technology, leading to better patient outcomes in surgical care.

PROJECT GOALS

- Characterize drug pharmacology in vitro.
- Develop and characterize matrix composition.
- Evaluate efficacy and toxicity in vitro.

LONG-TERM GOALS

- Develop a prototype
- Preclinical study and validation