

## Ipomoea-Based Herbal Ointment for Enhanced Wound Healing Efficacy

Technology Domain: Biotechnology

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Status (Patent/TRL): Patent Pending / TRL 4

### Technology Summary:

This invention presents a novel, plant-based wound healing formulation and its preparation method, offering a safe, effective, and affordable alternative to conventional therapies that may cause side effects or prove ineffective. The formulation is an ointment containing *Ipomoea staphylina* stem extract (0.5% to 10% by weight, optimally 1% to 5%) combined with a base of hard paraffin, soft paraffin, and wool fat.

The preparation method involves heating the paraffin and wool fat mixture to 40-50°C, then adding the *Ipomoea staphylina* stem extract with continuous stirring, followed by cooling. This formulation significantly enhances wound closure rates, reduces epithelialization time, and exhibits superior antimicrobial efficacy, as validated through *in vivo* studies on albino Wistar rats, attributed to the extract's rich phytochemical content including flavonoids, phenols, and terpenoids, which possess antioxidant and antimicrobial properties.

