



VENOMSMART

CLOTTING SHIELD

Prophylactic Biologic Against Pit Viper Venom Coagulopathy

The Problem

Pit viper envenomation remains a serious and costly threat to both animals and humans. Venom disrupts the body's natural ability to clot blood, leading to hemorrhage, organ failure, or death.

Current antivenoms are reactive — expensive, time-sensitive, and available only in hospital or emergency settings. No preventive solution currently exists.

The Concept

VenomSmart is a patent-pending biologic approach designed to be administered before venom exposure, with the intent of maintaining clotting integrity during the early stages of envenomation.

This prophylactic strategy draws inspiration from next-generation clotting therapies and aims to create a venom-resistant bridge that can remain functional even in the presence of destructive venom enzymes.

Why it's Different

- Preventive by design — intended to act before damage begins
- Engineered for venom resistance — built to endure exposure to snake proteases
- Potential for venom-triggered local activation — a conceptual safety mechanism
- Veterinary-first pathway — allows for faster preclinical evaluation and practical deployment

Market Opportunity

- Veterinary: Millions of dogs, horses, and livestock are at risk annually in venom-dense regions. The high cost and limited access to emergency antivenoms make preventive options highly attractive.
- Human: Outdoor workers, military personnel, rural residents, and hikers face significant risk. A pre-exposure intervention could provide a new layer of protection.

Status & Next Steps

- **Patent pending**
- Actively seeking veterinary and pharmaceutical partners for development
- Flexible licensing model — veterinary and human rights separable

Contact

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