



Unlocking the Science of Venom in Cosmetics

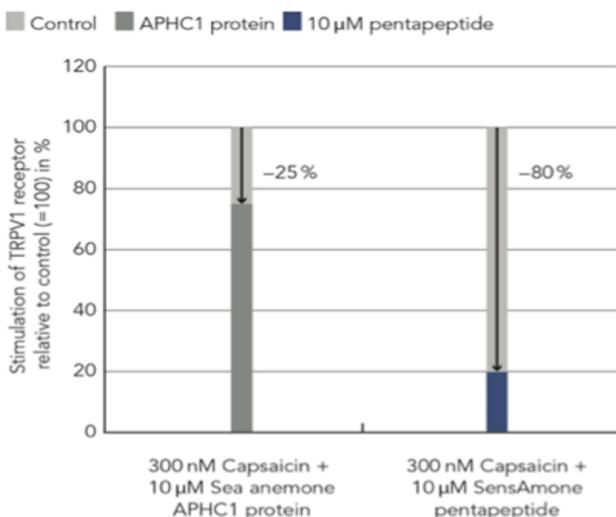
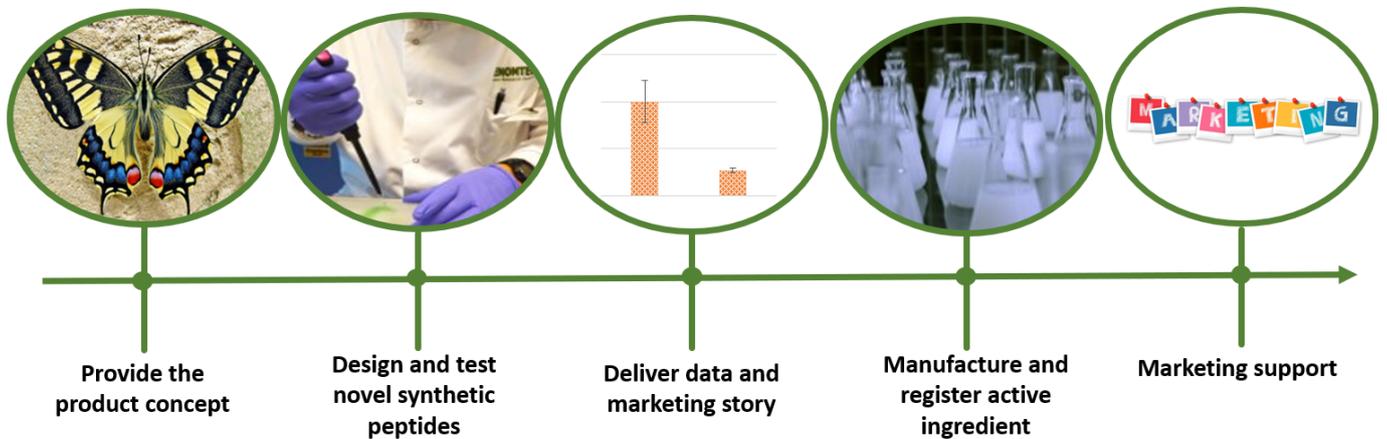
- ✓ Venoms hit specific targets
- ✓ Target based cosmetics deliver value
- ✓ Bring a venom-edge to your brand!

VenomSELECT™ is a comprehensive offering, from concept to active ingredient, with a unique marketing angle that has been proven to sell. You can start with just an idea, or a requirement, and we can do the rest!



See the flowchart below for the steps involved.

The VenomSELECT™ Service



The VenomSELECT™ process delivers new, first-in-class active ingredients such as **SensAmone P5**.

Developed with **Mibelle Biochemistry**, this is the first venom peptide derived from sea anemones to soothe sensitive skin by reducing the action of the pain receptor TRPV1.

The graph indicates the crude peptide reduced stimulation of the TRPV1 receptor by 25%. Venomtech's optimised SensAmone P5 peptide however, reduced stimulation by 80%



Synthetic peptides mimic the power of evolution and are non-toxic to human cells. Discover the active peptides Venomtech has to offer!



LioPep-5™

Lionfish (*Pterois* spp.) are successful tropical reef fish that are quick to colonise new reefs. These magnificent, venomous fish have a secret to their success; they can cope with toxins from marine pollution. Toxic substances, including heavy metals and organochlorides, bind to proteins in the Lionfish and are held away from their skin. These same toxins are found in polluted city air and can accumulate on human skin.



MorphoClense™

Swallowtail butterflies (*Papilio* spp.) are found throughout all the world's continents. These butterflies' delicate anatomies hide a powerful biochemical physiology that has evolved to protect them in the many hostile environments that they encounter. These adaptations include anti-inflammatory proteins to protect their fragile wings from inflammation and damage.

LioPep-5 and Zinc Reduction

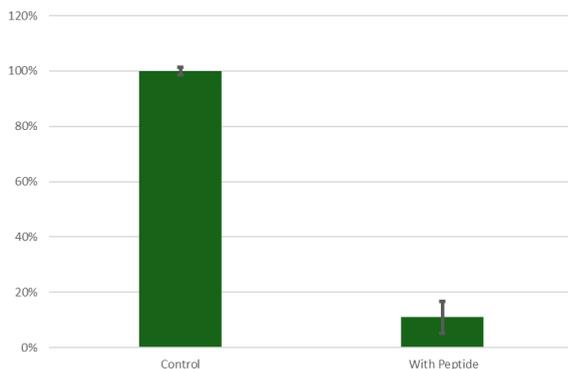


Fig 1. LioPep-5™ displays an 89% reduction in zinc presence compared to the control

LioPep-5™ is a biologically active peptide from the lionfish that collects zinc and other metal ions. Moisturisers could be formulated to protect skin by binding to the ions and isolating them. Scrubs, cleansers and face washes could be formulated to remove these toxins from skin. LioPep-5™ has been shown to reduce zinc by up to 89% (Fig. 1)

MorphoClense and PLA2 Activity

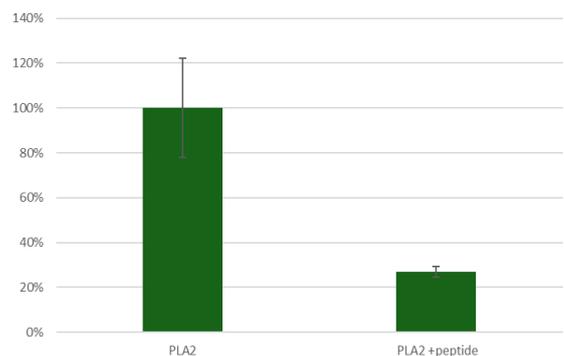


Fig 2. MorphoClense™ displays a 73% reduction in PLA2 activity compared to the control

MorphoClense™ has been shown, *in-vitro*, to achieve a 73% reduction in PLA2 activity (Fig. 2). MorphoClense™ is non-toxic to human cells in culture, water soluble and amenable to many formulations. Suggested formulations include washes, cleansers and scrubs with claims for reducing redness and irritation.



ScorpSoothe™

Bark scorpions (*Centruroides* spp.) are found mainly in North and Central America and into South America. The venom from these scorpions contains active inflammatory proteins, including PLA2. To protect themselves from the inflammatory action of this protein, the scorpions have evolved inhibitory peptides. ScorpSoothe™ replicates the effects of these inhibitors to soothe skin.



ViPep-5™

Carpet vipers (*Echis* spp.) are venomous snakes found across northern Africa, the Middle East and South Asia. Their venom contains toxins that damage skin proteins and harm healthy tissues. These toxins are so potent that carpet vipers have evolved peptides to protect themselves from their own venom. Venomtech, have synthesised the defensive peptides, to create ViPep-5™.

ScorpSoothe and PLA2 Activity

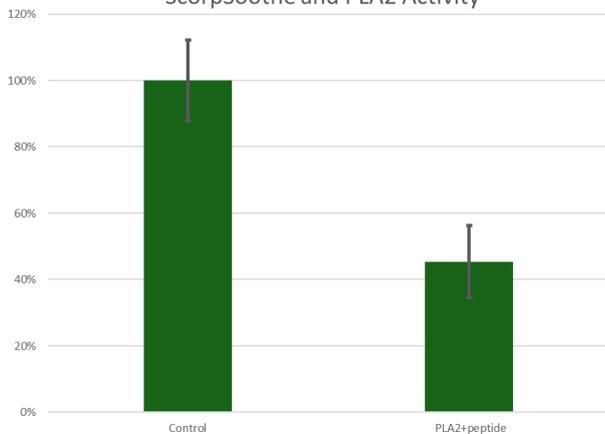


Fig 3. ScorpSoothe™ displays a 55% reduction in PLA2 activity compared to the control

The ScorpSoothe™ tetra peptide reduces PLA2 activity by 55% *in-vitro* (Fig.3). This peptide is non-toxic to human cells in culture, water soluble and is amenable to many formulations. This includes such products as moisturisers, cleansers and foundation. Suggested claims could include reducing redness and skin irritation.

ViPep-5 and Zinc Reduction

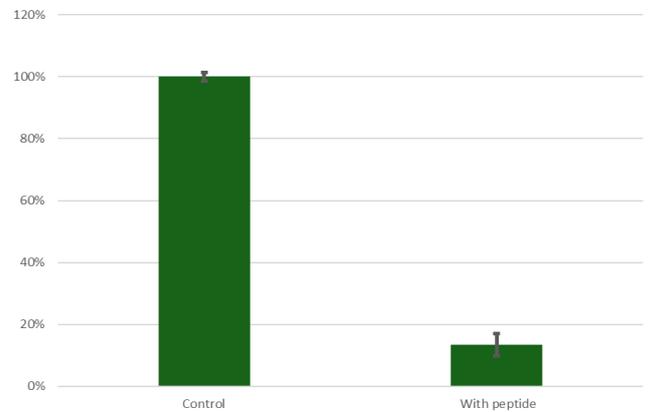


Fig 4. ViPep-5™ displays an 87% reduction in zinc presence compared to the control

ViPep-5™ is a biologically active peptide derived from carpet viper venom. Moisturisers, could be formulated from ViPep-5™ to protect skin from metal ions and other toxins. A face wash or scrub could be formulated to remove these pollutants from skin. ViPep-5™ has been shown to reduce the amount of zinc by up to 87% (Fig. 4).

Contact us today to find out how the power of venoms can work for you!

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