Pharmachal (Australia) & Rambam MedTech (Israel) Collaboration, Summary Results of Mice Trial, First Cohort

About Pharmachal	About Rambam MedTech
Pharmachal Health Group is a Melbourne-based pharmaceutical company specialising in nano drug-delivery, primarily for anaesthesia in the cuts, burns and wound markets. Pharmachal is raising up to CAD 5 million and listing on the TSXV in Canada as it prepares to launch its first products into the market in 2024.	Rambam MedTech is part of the Rambam Health Care Campus, the only tertiary medical centre for Northern Israel, a world-class, 1,200-bed teaching hospital in Haifa, Northern Israel. Rambam serves 12 district hospitals, more than two million residents, and is the coordinating hospital for the treatment of Israel's defence and peacekeeping forces.
Proprietary Technology - Pharmachal	**Proprietary Technology – Rambam MedTech**
Pharmachal has developed a highly-adaptable drug-delivery formulae (the "NDDS') that has (A) completed highly-successful clinical trials under renowned burns doctor Professor Fiona Wood AO; (B) been globally patented; (C) extensively used on >100 humans and animals in three continents; (D) will be launch internationally in 2024 through distributors already appointed in UAE, GCC, Israel and Australia. Clinical trials established that Pharmachal's "NOPAYNE" product, which delivers the common anaesthetic lidocaine in the NDDS formula, achieves significantly better efficacy, duration of anaesthesia and safety than leading competitors.	Rambam has developed and conducted extensive in-vivo trials of "Peptide 16AC", a 14 amino acid chain compound shown to (A) rapidly coagulate bleeding, (B) significantly accelerate wound healing by stimulating new dermal capillary growth (C) have significant potential for haemophilic / bleeding trauma treatment, oncology tumour treatment, and diabetic ulcer treatment, as well as trauma related to (burns, cuts, and wounds). Rambam has assigned to Pharmachal Health Group international API synthesising, manufacturing, and distribution rights for the Peptide 16AC products that it develops.

Details of Collaboration

Pharmachal and Rambam are combining NOPAYNE and Peptide 16AC to produce a 3-in-1 spray that: (1) rapidly coagulates bleeding, (2) provides rapid anaesthesia, (3) significantly accelerates wound healing. The current 4-month mouse and 1-month pig trial began in February 2024. Human trials are anticipated to follow in Israel and Australia in mid-2024.

Wound Healing Mouse Trial, First Cohort– Overview

A full-thickness incision of 10mm was made in the back skin of ICR mice. On days 1, 3 ,5, and 7 the following were applied topically to the wound:

- 6 controls - soft paraffin
- 6 with NOPAYNE (lidocaine 3% emulsion)
- 6 with Peptide 16AC and NOPAYNE. (Note: Peptide 16AC was not incorporated into the NOPAYNE NDDS mini-emulsion.)
- 6 with Peptide 16AC in soft paraffin

The incision was measured on days 3, 5 and 8 to quantify the rate of healing (See graph below).

Summary of Results, First Cohort

- 10mm full-thickness incisions treated with Pharmachal's mini-emulsion NOPAYNE lidocaine spray (alone) reduced on 3rd day to 7.6 mm, 5th day to 3.2 mm, 8th day to 1.8 mm in size, demonstrating the wound-healing characteristics of the anaesthetic formulae.
- 10mm full-thickness incisions treated with Peptide 16AC (alone) had almost fully healed by Day 8, reduced to 0.4mm.
- Wounds treated with a combination of NOPAYNE and Peptide 16AC confirmed that the discrete formulations can be used together without negative interaction, providing rapid healing, together with anaesthesia in a topical spray and gel.