

Adhesive patch to deliver drugs

14 March 2012 | News | By Nandita Singh

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One of the promising alternative drug delivery technologies is a transdermal delivery platform called targeted penetration matrix (TPM). Australia-based Phosphagenics has been working to develop this technology.

Dr Esra Ogru, CEO of Phosphagenics, says a validated transdermal delivery platform called the targeted penetration matrix is the company's core technology. "This platform technology can be used to deliver an extensive range of different products from high level pharmaceutical products to cosmetics," he says. "Our lead pharmaceutical agenda is to commercialize the delivery of the powerful opioid oxycodone via a patch that would adhere to the skin. We have been collaborating with the global patch-manufacturing company 3M to optimize the Phosphagenics oxycodone patch prototype and we regard this optimized patch as an outstanding commercial opportunity."

The patch has already passed extensive tests, proving that it can be optimally used as a twice-weekly product to manage pain.

According to Dr Ogru, it is a first-in-class product that promises to revolutionize pain management globally. "It is also a significant market opportunity. Oral forms of oxycodone currently command \$3.5 billion per annum. As oxycodone is the gold standard for pain relief, we believe a patch would command a substantial percentage of this market," he says.

Oral forms of the drug may be problematic in terms of duration of effect, side effects and abuse potential. Transdermal

delivery bypasses all of these problems.

Phosphagenics is also leveraging on this platform technology to launch other personal care brands like Elixia and BioElixia, both of which will incorporate TPM technology and deliver actives into the skin. Pivotal human trials of Phosphagenics' TPM oxycodone patch are expected to begin in Australia during December 2011 and continue until 2013.

The BodyShaper Cellulite Contour Crème launched in May 2011 uses the company's proprietary platform technology to deliver fat reducing molecules into the skin. The product includes the proprietary anti-fat peptide AOP9604 (which has been licensed to Phosphagenics) and two other lipolytic molecules, caffeine and forskolin.

"The results showed a marked reduction in the appearance of the cellulite at the application sites (up to 40 percent after four weeks and up to 56 percent after eight weeks). There was also improvement in skin elasticity and hydration and, 90 percent of the women involved reported a perceived improvement in the visible appearance of their cellulite," says Dr Ogru.

He says this has become a bestseller. "This revenue generating business has been launched with great success in Australia, and has recently entered the Asian markets," he adds.