

FIGURE 5



resolve unmet medical needs in selected therapeutic areas.

Having received a Series A equity investment of \$6 million in December 2007 has enabled Pantec to further develop its device and drug patch technology with the aim of replacing the required hormone treatment regime of daily injections made over a period of several weeks during IVF, with a simpler regime of epidermal preparation and IVF hormone patches. The company's current business model is focused on developing a variety of therapeutic treatments that encompass the IVF therapy regime.

"Building a hand-held laser microporation device is very complex; however, our brilliant team managed to build the most efficient 3-micrometer laser scanner of this small (hand-held) size," says Mr. Böhler. "The combination of a device that pretreats the skin safely and painlessly and a transdermal system, such as a patch, is not very well known with regulatory authorities. The fact that several technologies are screened and approved by authorities during the course of clinical programs helps the entire increasing number of companies trying to develop novel active transdermal systems to deliver large molecular weight drugs, thus avoiding injections."

Pantec's first P.L.E.A.S.E. target application is the multi-week hormone therapy for IVF, and the company is aiming to reach the market as soon as the hormone-containing patches are developed and approved. In addition to IVF, Mr. Böhler says Pantec is currently negotiating with pharmaceutical and biotech companies on several other opportunities in laser-assisted drug delivery.

TRANSPHARMA MEDICAL ANNOUNCES LICENSING & DEVELOPMENT AGREEMENT WITH ELI LILLY

TransPharma Medical Ltd. and Eli Lilly and Company recently announced that the two companies have entered into a licensing and development agreement related to TransPharma's ViaDerm-hPTH (1-34) product for the treatment of osteoporosis. The product, which is administered transdermally using TransPharma's proprietary technology, is currently in Phase II clinical testing.

Under the terms of the agreement, Lilly will obtain exclusive worldwide rights to TransPharma's ViaDerm-hPTH (1-34) and will also gain non-exclusive access to TransPharma's ViaDerm drug delivery system.

TransPharma will receive a \$35-million up-front payment, and may also receive development and sales milestones, as well as royalties on sales if a transdermal PTH product is successfully commercialized. TransPharma and Lilly will both fund and participate in Phase II clinical development activities. Thereafter, Lilly will be responsible for further development activities and the potential commercialization of any transdermal PTH products. Other terms of the deal were not disclosed.

"We are extremely pleased to partner with Lilly, a leading player in the osteoporosis market," said Dr. Daphna Heffetz, CEO of TransPharma Medical. "This collaboration is an excellent example for how our transdermal ViaDerm-based products may deliver added value to promising drug compounds. We are confident that Lilly's experience and outstanding drug development capabilities together with our innovative technology could propel our joint ViaDerm-hPTH (1-34) product as an improved therapy for people suffering from osteoporosis."

TransPharma's ViaDerm drug delivery system incorporates a hand-held electronic control unit, which creates microscopic passageways through the outer layer of the skin, allowing for transdermal delivery of a wide variety of drugs from a patch. The system provides a cost-effective, easy-to-use, self-administered solution that enables the safe, reproducible, and accurate delivery of a broad range of product candidates, including hydrophilic small molecules, peptides, and proteins.

SUMMARY

Looking ahead, these industry insiders obviously agree that active transdermal technology will make great strides in delivering larger molecules, dosing on demand, delivering at alternative sites, and in becoming more sophisticated.

"Whether active or passive, a patch can be extraordinary," says Mr. Pierce of NuPathe.

Mr. Knorr of AR references a quote from J. Herbert Waite, a Professor of Biochemistry at the University of California, "All living things in nature are exquisitely assembled from adhesively bonded parts." Mr. Knorr continues, "I believe this quote eloquently depicts the limitless potential of using adhesives in healthcare applications. In transdermals, we are merely scratching the surface of adhesive applications in drug delivery." ♦

BIOGRAPHY



Ms. Cindy H. Dubin has been a professional journalist since 1988. She is currently a Contributing Editor to Drug Delivery Technology as well as Editor of

its Specialty Pharma section. Prior to these positions, she spent several years focusing her writing on pharmaceutical formulation and development. She has been recognized by the American Society of Business Press Editors for an article she wrote on nanotechnology, and her writing has been awarded by the prestigious Neal Award Committee for Journalistic Excellence. Ms. Dubin earned her BA in Journalism from Temple University in Philadelphia and her certificate in Business Logistics from Pennsylvania State University.