

Market News

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INTERVIEW-CollPlant uses tobacco to make human collagen

9:37 am -- * Collagen products aimed at wound healing, orthopaedic markets

* Collaboration deals with Pfizer, Edwards Lifesciences

* Expects wound healing gel on market by 2013

By Tova Cohen

TEL AVIV, Oct 3 (Reuters) - An Israeli biotechnology company is producing human collagen, a protein vital for tissue repair, from genetically modified tobacco plants grown in greenhouses throughout Israel.

Medical collagen, used in over 1,000 different therapies including tissue repair and bone replacements, is a multi-billion dollar industry but until now has been risky, expensive and limited in scope because the only sources available were tissues from pigs and cows or human cadavers.

CollPlant Holdings Ltd says its genetically engineered human collagen is safe and offers enhanced properties that have led to collaboration deals with Pfizer Inc and Edwards Lifesciences Corp.

Chief Executive Yehiel Tal said CollPlant is directing its technology mainly at two markets -- orthopaedics and wound healing -- which are growing about 10 percent a year.

"There is a lot of unmet need in these markets," he told Reuters in an interview. "In a growing field of 250 acres of tobacco you can satisfy annual worldwide consumption of orthopedic products based on collagen."

The technology behind CollPlant's collagen was invented by the company's co-founder Oded Shoseyov, who succeeded in transferring all five genes responsible for the production of the protein into a transgenic plant.

Tal said tobacco was well suited for this because it starts a new growing cycle every six weeks, its genome is well known and it is not part of the food chain, so the genes cannot escape into the environment.

In Europe, scientists launched a clinical trial of an anti-HIV biotech medicine produced using genetically modified tobacco.

CollPlant, which has 50 employees, is marketing its collagen as raw material to laboratories. Any researcher wanting to commercialize a product using the collagen has to sign an agreement with CollPlant.

"Sales volume is increasing fast from the raw material and other income will come from our strategic collaborations," said Tal, who forecast the company would be profitable by 2014.

CollPlant has raised \$23 million and main shareholders include a fund led by Eli Horvitz, former CEO of Teva Pharmaceutical, and Harel Insurance.

CollPlant is also developing products on its own, including a gel to accelerate healing diabetic ulcers, which the U.S. Food and Drug Administration has agreed to classify as a medical device rather than a drug.

"This is a breakthrough because the medical device regulatory review process is much simpler and quicker than that used for

products defined as drugs or biologics," Tal said.

CollPlant will carry out a clinical trial in Israel to collect safety data and expects to sell the product in 2013. The market for the gel is estimated at \$250 million a year.

The company is collaborating with Pfizer to develop collagen products for repair of bone fractures and spinal fusion and with Edwards in cardiovascular applications. Tal estimated the products would be on the market in 2016.

"We hope to sign additional collaboration agreements in the next year," he said.

CollPlant is also talking with companies to help it penetrate Asian markets.

"Japan and China prohibit animal source collagen so it's a huge opportunity for us to penetrate these markets," Tal said.
(Editing by David Cowell)

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