

Partnership advances revolutionary treatment

By Mark Pavilons

The efforts of a King company to improve the lives of millions has received a solid boost through a unique partnership with an American health care provider.

Sensus Healthcare and BirchBioMed have entered into a collaboration to take scar treatment to the next level.

Sensus, a Nasdaq company and a leader in the innovative use of SRT (superficial radiation therapy) in the treatment of keloids, combined with BirchBioMed's late-stage FS2 product candidates, takes the treatment of scars to new heights.

Sensus Healthcare, Inc. is a medical device company specializing in the non-invasive treatment of non-melanoma skin cancers and keloids with superficial radiation therapy (SRT). The biomedical company is focused on anti-scarring drugs, to treat and prevent scarring more effectively for patients who are afflicted with keloids.

"This partnership unites our joint efforts to eliminate the suffering of millions of people who have disfiguring keloids and other scars," said Kingscross resident Mark Miller, chairman and CEO of BirchBioMed. "Combining Sensus' innovative use of SRT with BirchBioMed's late-stage FS2 product candidates takes the treatment of keloids scars to the next level. This is especially revolutionary given that expensive cosmetic treatments on the market show little, if any, efficacy in treating scars. Medical alternatives are also costly, painful for the patient and focused on healing wounds, not on preventing and eliminating scars altogether."

Sensus' SRT delivers precise, calibrated low-dose radiation that effectively destroys the non-malignant tumor cells that cause keloids and other scars. BirchBioMed's pipeline of fibrosis-targeted treatments, including FS2, prevents the formation of external and internal scars on the molecular level by targeting excessive scar protein formation that results from repair of an injury, surgery and as a consequence of chronic disease. To date, there has been no therapeutic agent approved by the FDA that targets scarring on the molecular level.

"BirchBioMed has the means to provide cost-effective products that will work in conjunction with Sensus' SRT to prevent and/or eliminate scarring," added Joe Sardano, president and CEO of Sensus Healthcare. "This is all about creating better products at a lower cost for patients with scars, and especially keloids, and this collaboration will ultimately create more effective options for both doctors and patients moving forward."

Miller and Susan Elliott, co-founders of BirchBioMed, are pleased their work has moved forward. The duo has been committed to bringing the product to market, and has been working with researchers and investors for roughly three years.

BirchBioMed holds the exclusive world-wide pharmaceutical licence from UBC for two breakthrough therapeutic technologies.

Hopes are, the lead drug, FS2, will replace all existing treatments for several diseases.

"Scarring affects hundreds of millions of people," said Dr. Ryan Hartwell, BirchBioMed's chief science officer, who, along with Dr. Aziz Ghahary, founded the FS2 technology. "The physical and emotional toll it takes is devastating. The simplicity of our topical treatment holds the promise of improving patient quality-of-life and potentially achieving dramatic reductions in the cost of treatment."

FS2 has already proven safe and effective, preventing the formation of scars and promoting the breakdown of existing scars, as well as reversing Type 1 Diabetes and Alopecia, when combined with a simple, one-time cell therapy. The company is poised to begin phase II trials in Canada and the U.S., and its patent for topical use to prevent scarring has been approved in the U.S. In all, BirchBioMed is thrilled with the results, which have already received world-wide acclaim.

These technologies are being viewed as important breakthroughs that have the potential to impact millions of people worldwide.

"Until now there has not been a single therapeutic that can satisfactorily target the molecular aspects of scarring, which results from the body over-repairing after an injury, surgery or disease," said Dr. Ghahary, regarded as one of the top experts in scarring and burn injuries. He's also the director of the British Columbia Firefighters Burn and Wound Healing Laboratory, part of the Vancouver Coastal Health Research Institute (VCHRI).

FS2, a small molecule (roughly the size of aspirin) that the body produces naturally, is an end-stage metabolite, which means that, once it is created in the body, it is no longer modified before being excreted. It's abundant in a woman's body during pregnancy, and has been found to protect the fetus from being rejected by the body as a foreign substance.

FS2 works by stopping the body from over-producing scar tissue, both inside and out. Not only does it prevent scarring from taking place right after damage or surgery, it can actually breakdown scarring that has already taken place. This has tremendous benefits in

treating skin damage caused by various conditions, as well as burns. By using FS2 on sutures themselves, it can prevent scarring from ever taking place. Preliminary tests show efficacy within 60 days.

"This is one of the most exciting efforts I've ever been involved in," Miller said.

"It is our intention to develop our therapeutics to deliver products that can serve the entire global market and address a number of healthcare's costliest segments," he added.

FS2 can be used orally, injected or as a topical treatment and holds the promise of changing cosmetic surgery.

People suffering from scarring, as well as Alopecia and Type-1 Diabetes, are desperate to get something that actually works, Elliott noted.

There's currently nothing like FS2 and AI-001 anywhere in the world.

Miller noted the potential benefits, including with internal scarring, are "huge."

More than 100 million people in the developed world suffer from severe scarring. Wounds of all types (surgical and trauma) contribute 4% of all medical costs.

Autoimmune diseases are responsible for over 80 known conditions and afflict an estimated 5 to 8 per cent (365 to 584 million people) of the world's population. The International Diabetes Federation estimates that as of 2011, approximately 29 to 49 million people were living with type 1 diabetes worldwide, a number expected to grow to an estimated 55 to 61 million people by 2030.

To find out more about these remarkable treatments, visit www.birchbiomed.com or www.sensushealthcare.com.