Regentis Bio Raises $10M Series C Round For Cartilage-Regeneration Therapy

Brian Gormley, May 14, 2012

Regentis Biomaterials Ltd. has raised a $10 million Series C round to provide knee-injury patients with a better shot to re-grow the cartilage they've lost.

New investor Royal DSM led the round, which closed this month. New investor Crossroad Fund also participated, as did previous backers Medica Venture Partners, SCP Vitalife and Technion Investment Opportunities Fund. Regentis has raised a total of $18 million since forming in 2004 and now has about two years of funding, said Chief Executive Alastair J. Clemow. Valuation is undisclosed.

Cartilage is difficult to re-grow because it is poorly vascularized and doesn't get the blood and nutrients needed for regeneration, according to Clemow. Today, surgeons try to stimulate regeneration through microfracture procedures, in which they make small holes in the bone near the damaged cartilage. The holes release cells that build new cartilage.

Microfracture surgery isn't completely effective as a long-term solution, according to Clemow. A second-line option, autologous chondrocyte implantation, involves harvesting cells from the patient and then culturing and returning them. This requires two surgeries and is expensive, Clemow said.

Regentis's therapy, an off-the-shelf treatment given along with microfracture surgery, combines polyethylene glycol and a blood product. It is injected into the cartilage defect. With the help of ultraviolet light the liquid converts into a solid. As the product breaks down it is replaced by cartilage over six to 12 months, according to Clemow. While the treatment won't completely restore cartilage to the way it was before surgery, it can relieve pain and support the joint, he said.

The technology – originally developed at Technion-Israel Institute of Technology – is designed to enable knee cartilage to regenerate and fit tightly with surrounding cartilage and underlying bone, according to the company. Regentis, which has offices in Or Akiva, Israel, and Princeton, N.J., is conducting a pilot study in Europe and Israel to evaluate the product, called GelrinC.

Regentis intends to secure European marketing clearance in two to three months, Clemow said. The company, which expects to launch the product in Europe in 2013, is still developing its U.S. regulatory strategy, Clemow said.