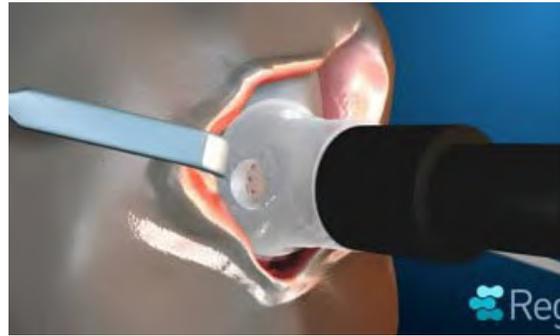


Biodegradable Hydrogel for Cartilage Repair on Track for CE Mark

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News about Israel-based startup [Regentis Biomaterials Ltd](#) raising US\$10 million in funding flickered across my screen the other day. The Series C round of financing from new investors, including Royal DSM's venture capital subsidiary, and existing ones will allow Regentis to establish a European presence and carry on its pilot study of GelrinC, a biodegradable implant that enhances growth of articular cartilage in damaged knee joints. CE marking is expected this summer. We wanted to learn more about the technology and the company's ambitions, so we spoke with Regentis Biomaterials CEO Alastair Clemow.



As anyone who has experienced a knee injury can tell you, and I speak from experience, recovery is often slow and arduous. The Gelrin C biodegradable implant is designed to promote the growth of articular cartilage in damaged knee joints and allow patients to quickly regain an active lifestyle.

The biomaterial is injected into the damaged tissue, completely filling the space where the cartilage is missing in action. The GelrinC then accelerates the migration of tissue-repairing cells to the damaged cartilage and progressively disintegrates as the tissue regenerates. (A [video](#) showing how GelrinC works is posted on [MEDTEC Connection](#).)

Other cartilage repair techniques result in regenerated cartilage that is different from native cartilage and are often followed by subsequent surgical interventions, according to Regentis. Also, GelrinC reportedly has a cost advantage.

“We consider our competition to include cell-based treatments such as Carticel (Sanofi BioSurgery), which can cost up to US\$25,000 per patient and require two procedures,” explains Clemow. “Our treatment is performed in a single procedure and is projected to be priced at a significantly lower point. Like any new treatment these days, improved outcomes and quality of life are crucial to gaining widespread acceptance with both surgeon and reimbursement [officials]. However the fact that we are an acellular product without the limitations of either autologous or allogeneic cells means that we have wider freedom to set prices while still enjoying a healthy gross profit,” says Clemow.

The company has conducted preclinical studies demonstrating GelrinC's ability to promote regrowth of cartilage and is currently conducting a multicentre pilot study in Europe and Israel to evaluate the material's safety and performance. “Our objective is to gain CE mark approval this summer and then expand our presence in Europe by building on our current clinical trial to develop the necessary clinical database to support the product,” says Clemow. The initial focus

will be on Germany, the Netherlands and Belgium, he adds, with growth into other markets, both inside and outside the European Union, beginning over the next few years.

I also asked Clemow about Israel's robust technology and medtech sector. To what does he attribute the country's spectacular and sustained success, I wondered. "I think there are many reasons, including past successes (success breeding success), the outstanding universities and a smart, well-trained workforce," says Clemow. "The presence of a number of experienced venture funds has obviously helped to grow the sector. But, to me, the most important factor is the strong culture of risk taking. In many respects, the startup field in Israel mirrors that of Northern California's in terms of culture, social acceptance and vitality," says Clemow.

-Norbert Sparrow