Through the Bioglass

*Dental Tribune* looks at a thoroughly British development making its debut at Showcase...

Dental products are constantly evolving as new technologies make their way to market. More efficacy, cost-effectiveness, biocompatibility and patient comfort are just some of the driving forces behind new product development. Whilst this type of development often comes from companies, every once in a while something new comes from the research being undertaken within the university system that breaks boundaries. Sylc from OSpray is just such an example.

Sylc is a therapeutic bioglass prophylactic powder which has been developed by a team of biomaterials engineers and dentists from Imperial College London and Kings College (Guy’s Hospital) London. Ten years in the making, the technology has its origins in maxillofacial surgery, reconstructing faces after an accident or cancer. Sylc is a 100 per cent calcium phosphate-bioglass material - a powdery form of bioactive materials that as they combine with saliva or water, forms hydroxyapatite crystals (HCA) that become entrapped into the collagen of dentin and biologically bond into the mineral surface to promote regeneration of dentin and damaged tooth surfaces. Sylc has been developed to provide a wide range of clinical benefits including:

- cleaning, polishing, desensitising, brightening, remineralising and anti-microbial properties.
- In-vivo and in-vitro published studies demonstrate Sylc not only clean teeth more efficiently than existing materials, but also rapidly combats sensitivity and promotes remineralisation of tooth surfaces. Patient response is very positive, with much higher levels of comfort being reported.

Richard Whatley, Europe & Asia Business Director for OSpray Ltd, a technology start-up company funded to commercialise the development of the use of air propelled bioglass powders for prophylactic and therapeutic treatment for minimally invasive in dentistry, spoke to *Dental Tribune* about the product. “Sylc has been 10 years in the making – from the original research and development through the clinical trials and finally to the first viable product.

“Trials of Sylc were conducted at sites in London and also at the university of Maryland in the United States. All studies showed a significant reduction in sensitivity and a higher level of patient comfort. Feedback from patients meant the appreciation of its neutral, salt-free taste. The spray was aimed to be far more direct, so it did not get all over the patient.”

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tient’s face and clothes. Clinicians reported positive feedback too – there was highly significant reduction in sensitivity and rapid stain removal.”

Richard added: “The way it is used is very simple – it is sprayed on using a standard air polisher (no specialist equipment is needed) one centimetre from the tooth surface. The powder can remove stain and discoloration, however it has the added benefit of impregnating the tooth surface to reduce sensitivity. The particles are able to embed themselves into the tooth and block the hot and cold sensations that cause the pain of sensitivity.

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Richard commented: “Sensitivity is an increasing problem for patients – at least 10 per cent of the overall population is expected to suffer significant sensitivity; this increases to almost 100 per cent as the population gets older.

“In addition, we are currently undertaking studies to validate the efficacy of Syle in reducing sensitivity pre and post bleaching.”

To find out more about Syle and how it can be of benefit to your patients, visit the J & S Davies stand (M10) at Showcase, where you can take advantage of some special show offers for the product. More information can be found on www.ospray.com, or by contacting J & S Davies on 01458 758 908. 