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BSF Enterprise PLC

Kerato Ltd Partners with University of Montreal to develop a novel treatment for corneal damage

BSF the Main Market listed biotech company and owner of corneal tissue replacement company Kerato Ltd, is pleased to announce that Kerato Ltd has entered into a Heads of Terms agreement and research partnership with the University of Montreal in Canada.

BSF's 100% owned Kerato is an independent company established to commercialise new innovations in tissue engineering towards in vitro and in vivo corneal use.

As part of this strategy, Kerato will work with the University of Montreal, combining tissue engineering expertise to further develop an in-situ gelling cornea that offers a novel treatment for corneal damage and full thickness perforations.

Corneas are the most frequently transplanted human tissue worldwide, with around 185,000 procedures per annum¹. However, it is estimated that 55% of the world's population do not have access to donor material¹ with an estimated 12.7 million people worldwide waiting for a transplant². The global artificial cornea and corneal implant market was valued at \$ 421 million in 2021³, of which Kerato estimates its serviceable market to be \$37.6 million. The total market is expected to grow at 6.9% per annum to reach \$ 767.5 million by 2030³.

Kerato's treatment combines host corneal stromal cells with a synthetic extracellular matrix protein sequence to support tissue healing and re-epithelialization of the surface of the eye. Administered via injections to repair damaged tissue rather than performing full transplant surgery, the treatment is expected to greatly reduce the complexity of procedures for many patients. This is expected to reduce time in hospital, decrease the likelihood of graft rejection, reduce costs for health service providers and result in better patient outcomes.

New tissue resulting from the treatment comprising the patient's own stromal cells, is transparent and replicates the natural curvature of the eye. Stromal cells comprise the extracellular matrix that provide structural support for organs. Kerato's Intellectual property and academic partners have previously demonstrated the critical role of corneal stromal cells in engineering a healthy extracellular matrix, and the impact that biomechanics can have on tissue regeneration.³

The partnership with the University of Montreal will build on the successful pre-clinical studies and academic work of Professor May Griffith, advancing the translation of the prototype corneal treatment and taking it through safety and efficacy studies, completing clinical trials and gaining regulatory approvals before launching on to international markets. The partnership with the University of Montreal.

To de-risk this (as well as shorten time to market) the new approach will first be trialled in the veterinary space giving animal owners much greater access to complex corneal repair treatments.

Kerato's aim is to commercialise its advanced intellectual property in tissue engineering and bio-engineered corneal products and accelerate progression toward clinical and veterinary trials. Two applications are being developed, an Implantable Medical Device and an Ocular Toxicity Testing Platform.

Sarah Greenhalgh, Managing Director at Kerato Ltd said: "This project with the University of Montreal marks the next step in the growth and development of Kerato's corneal regenerative therapy technologies. Stromal stem cells significantly contribute to corneal clarity by replenishing damaged or aged keratocytes. We are excited to be working on a transformative treatment for the repair of corneal damage which can reduce costs for healthcare providers and support improved patient outcomes."

¹Gain P, Jullienne R, He Z, Aldossary M, Acquart S, Cognasse F, Thuret G. Global Survey of Corneal Transplantation and Eye Banking. *JAMA Ophthalmol.* 2016 Feb;134(2):167-73. doi: 10.1001/jamaophthalmol.2015.4776. PMID: 26633035

²Gain P, Jullienne R, He Z, et al. Global Survey of Corneal Transplantation and Eye Banking. *JAMA Ophthalmol.* 2016;134(2):167–173. doi:10.1001/jamaophthalmol.2015.4776

³Artificial Cornea and Corneal Implant Market Report, 2030 (strategicmarketresearch.com), accessed 9/04/24

⁴Gouveia, R.M., Lepert, G., Gupta, S. et al. Assessment of corneal substrate biomechanics and its effect on epithelial stem cell maintenance and differentiation. *Nat Commun* 10, 1496 (2019). <https://doi.org/10.1038/s41467-019-09331-6>

For further enquiries, please visit www.bsfenterprise.com or contact:

About BSF Enterprise PLC

BSF Enterprise PLC (BSF) is the parent to a portfolio of innovative subsidiary companies focused on developing and commercialising cell-based tissue engineering solutions to deliver sustainable outcomes across a variety of sectors. Its portfolio of subsidiaries, of which it owns 100% with the exception of 50% owned CMT, is as follows:

3DBT A pioneering UK-based tissue engineering company that successfully produced the UK's first high-quality cultivated meat.

Lab-Grown Leather Ltd A company focused on the customer driven development of cultivated skin technology to produce sustainable leather.

Kerato Ltd A tissue engineering company with patent-protected IP that is already producing human corneas for testing to help restore vision to millions of people.

BSF Enterprise (Hong Kong) Limited A company established to actively support commercialisation of BSF's technology in China and Asia.

Cultured Meat Technologies (CMT) A 50% owned joint venture with CellulaRevolution Ltd (CellRev), focused on providing the market with the premier platform for manufacturing cultivated meat in a scalable and cost-competitive manner.

BSF's core strategy is to acquire, invest in, or develop joint ventures with, the most promising companies from across the industry. In doing so BSF intends to create an environment in which its portfolio of companies can flourish and collaborate, thereby accelerating their progress, potential and time to market.