



Ophthalmic gene therapy company Ikarovec launches with £2.5m seed funding

Founded by UKI2S with co-investment from LifeArc & Parkwalk to advance a diabetic macular edema gene therapy and other pipeline products

Cambridge, February 5 2020 – Ikarovec, which is developing novel gene therapies to treat major ophthalmic indications, has launched today with £2.5m of seed funding from leading UK start-up investors UKI2S, LifeArc and Parkwalk. Primary use of funds is to take the company's lead programme, a multicistronic gene therapy for diabetic macular edema (DME), to IND-enabling studies. Ikarovec was founded in 2019 by Chief Scientific Officer Dr Peter Widdowson, around intellectual property spun out of Quethera, which he founded and was bought by Astellas in 2018.

The proceeds of the fundraising will also be used to develop the company's three earlier stage novel gene therapy products for major ophthalmic indications, build the intellectual property portfolio and establish its own laboratories. The lead programme is the first gene therapy for impaired visual acuity associated with DME, designed to manufacture three therapeutic proteins in the retina to target leaking vessels and inflammation. This 'polypharmacy' gene therapy will be delivered by a novel exosome-based system. Encouraging data has been generated in *in vitro* cell assays. DME is the leading cause of blindness in the working age population.

Dr Robert Haigh is Executive Chairman of Ikarovec, bringing extensive business development and ophthalmic expertise via roles at Boehringer Ingelheim, Ferring and KalVista. In association with the fundraising, he is joined on the Board by Oliver Sexton, Investment Director at UKI2S, David Holbrook, Head of the Seed Fund at LifeArc, and Dr Cassie Doherty, Investment Director at Parkwalk.

Robert Haigh, Executive Chairman of Ikarovec, said, 'The increasing incidence of debilitating ophthalmic diseases brings morbidity and economic cost, and we are pleased to announce our seed funding today to tackle these urgent issues. We thank our investors UKI2S, LifeArc and Parkwalk for their support, and look forward to working with them to build Ikarovec into a leading gene therapy company.'

Oliver Sexton of UKI2S said, 'Ikarovec's innovative approach offers a potential one-shot treatment for hugely debilitating and common eye disorders. The multi-gene approach has already shown success and UKI2S is excited to be working with such a strong team to develop cutting edge therapies.'

Dr David Holbrook, Head of LifeArc's Seed Fund commented: 'Our Seed Fund is focused on investing in companies with a promising scientific concept and by

applying our translational expertise we hope to develop these into new interventions that address patient need. We are delighted to be backing Ikarovec and its team with great experience in ocular medicine, in particular ocular gene therapy. We look forward to working with our co-investors in helping the team succeed in bringing vital new therapies to patients.'

Cassie Doherty, Investment Director, Parkwalk, said, 'We are very happy to be supporting the team at Ikarovec, where CSO Peter Widdowson and Executive Chairman Robert Haigh bring a wealth of technical, commercial, entrepreneurial knowledge and expertise to the company. Ikarovec's multi-targeted approach has great potential to help close the gap of unmet clinical need, which will ultimately improve patient outcomes.'

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Notes for Editors

About Ikarovec

Established in 2019, Ikarovec is developing novel, differentiated gene therapies for major ophthalmic indications. Its lead product, a multicistronic gene therapy for diabetic macular edema, is in preclinical studies, and earlier programmes are targeting wet age-related macular degeneration (AMD), dry AMD and intra-ocular hypertension. Building on intellectual property spun-out of Quethera (bought by Astellas in 2018), Ikarovec was founded by UKI2S and recently raised a £2.5m seed round with co-funding from LifeArc and Parkwalk Advisers. There is an experienced senior management team in place with business development and commercial success in ophthalmology and gene therapy - Dr Peter Widdowson (ex Quethera) is Founder and Chief Scientific Officer, and Dr Robert Haigh (ex KalVista) is Executive Chairman.

About diabetic retinopathy and diabetic macular edema

Diabetic retinopathy (DR), the precursor of diabetic macular edema (DME) in type II diabetes and proliferative diabetic retinopathy in type I diabetes, is the most frequent vascular complication of diabetes, affecting up to 80% of patients who have had diabetes for 10 years or more. In 2019 it is estimated that over 100 million people worldwide have diabetic retinopathy and, with more than 2 million new cases being diagnosed annually, this number is expected to double in the next 20 years.

In DR, hyperglycaemia-induced damage to the retinal capillaries leads to inflammation, vascular dysfunction such as new vessel growth and leakiness driven by VEGF, leading to damage and loss of epithelial cells and blurring of

vision. Current treatment relies on monthly intravitreal injections of VEGF inhibitors, but there is growing evidence that this is of benefit to less than 50% of patients. The monthly injections are also associated with some safety concerns. The DME market is currently in the region of \$7 billion pa, with 14% CAGR.

About UKI2S

UKI2S is a national seed investment fund that helps the UK to build innovative businesses, leverage private investment and grow jobs. UKI2S achieves this by nurturing new businesses arising from the great science undertaken in the UK; providing the patient, long-term committed capital and strategic advice these companies need. UKI2S works closely with its partners – led STFC, BBSRC and NERC, which are all part of UK Research & Innovation (UKRI) and Dstl — and is aligned with the Catapults and Innovate UK to create the best environment for innovation to flourish and in turn, boost the UK's competitiveness and productivity by commercialising key technological advances in industrial biotech, ag tech, healthcare, medicine, clean energy, materials, artificial intelligence, software and space. For information, please visit www.ukinnovationscienceseedfund.co.uk

About LifeArc

LifeArc is a self-funded medical research charity. Our work advances the translation of early science along the path to healthcare treatments or diagnostics. We have been doing this for more than 25 years and our work has resulted in a diagnostic for antibiotic resistance and four licensed medicines. Our success allows us to explore new approaches to advise, research and fund translation. Our model is built on collaboration, and we partner with a broad range of groups including medical research charities, research organisations, industry and academic scientists. We are motivated by patient need and scientific opportunity. To find out more, visit lifearc.org

About Parkwalk

Parkwalk is the largest growth EIS fund manager, backing world-changing technologies emerging from the UK's leading universities and research institutions. With £250m of assets under management, it has invested in over 100 companies across its flagship Parkwalk Opportunities EIS Fund as well as the award-winning enterprise and innovation funds Parkwalk manages for the Universities of Cambridge, Oxford and Bristol. Parkwalk invests in businesses creating solutions to real-world challenges, with IP-protected innovations, across a range of sectors including life sciences, AI, quantum computing, advanced materials, genomics, cleantech, future of mobility, MedTech and big data. For more information please visit: <http://parkwalkadvisors.com>