PRESS RELEASE
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Phico Therapeutics awarded Innovate UK funding for £1.4 million ($1.87M) antibacterial therapy project

Funding will support development of a Pseudomonas aeruginosa targeted therapeutic, to tackle the genetic cause of antibiotic resistance

CAMBRIDGE, UK, 01 August 2018 – Phico Therapeutics Ltd (‘Phico’), a biotechnology company developing a novel platform technology as the basis of a new generation of antibiotics to overcome antibacterial resistance, today announced that it had been awarded significant funding to support the manufacturing development of its intravenous antibiotic, SASPject PT3.8. Innovate UK, the UK’s innovation agency, will provide £1.4 million ($1.87 million USD) to support the project, which will be undertaken in partnership with The Clinical Trial Company and GE Healthcare.

Phico is developing SASPject PT3.8, an antibacterial therapy for the systemic treatment of patients with serious Pseudomonas aeruginosa (P. aeruginosa) infections, which have a high mortality rate. P. aeruginosa causes a wide range of infections, most frequently in hospitals, and is very difficult to treat, due to the organisms/bacteria’s intrinsic antibiotic resistance mechanisms, including an impermeable cell membrane and efflux pumps, which can remove antibiotics that do enter the cell. As clinical trials are expanded, it is anticipated that the product will also be used in situations where a P. aeruginosa infection is suspected but yet to be confirmed, further extending the market opportunity for SASPject PT3.8.

SASPject PT3.8 has been developed using Phico’s SASPject™ platform, which utilises a unique antibacterial small acid-soluble spore proteins (SASP), to target and deactivate bacterial DNA, stopping bacteria from metabolising or reproducing. The Innovate UK funding will be used to improve the manufacturing yield of PT3.8. This includes the manufacture of a 15 litre pre-GMP batch for formal pre-clinical testing, and development of a quality management system (QMS) for manufacturing at Phico. As partners in the project, The Clinical Trial Company is developing the QMS and GE Healthcare advising on practical manufacturing processes. The programme cost will total £2 million ($2.65 million USD), and the remaining funds will provided by Phico’s shareholders.

Dr Heather Fairhead, CEO at Phico, said: “Our goal is to advance the science of antibacterial therapy to help overcome the global problem of bacterial resistance. This non-dilutive funding from Innovate UK is an important validation of our platform, and will enable us to take our lead product towards testing in humans.”

ENDS

Photo: Dr Heather Fairhead, CEO, Phico Therapeutics.
Notes to Editors

About Phico Therapeutics Ltd
Phico Therapeutics, founded in Cambridge by Dr Heather Fairhead, is built around the SASPject™ platform, which utilises a unique antibacterial protein, SASP, which targets and deactivates bacterial DNA, stopping bacteria from metabolising or reproducing. Phico has raised almost £16M from business angels, high net-worth individuals, and the Wellcome Trust and Government grants. Phico’s goal is to advance the science of antibacterial therapy to help overcome the problem of bacterial resistance.

About SASPject™
SASPject™ delivers pan-spectrum antibacterial proteins called small acid-soluble spore proteins, or SASPs, to selected bacterial species using targetable nano-delivery vehicles (NDVs). SASPject™ works by injecting a gene that encodes SASP directly into the targeted bacteria. The injected gene then produces SASPs, which bind to bacterial DNA and inactivate it. SASPs “turn off” DNA so the targeted bacterial cell cannot metabolise or reproduce. The immune system can then remove the bacteria from the body. SASPs bind to all bacterial DNA, irrespective of the sequence of that DNA. Spontaneous mutations in DNA, or the import of new DNA that gives new characteristics to the bacterial cell, are key ways in which bacteria develop resistance to antibiotics. Neither of these strategies affects the ability of SASP to bind to and inactivate bacterial DNA.