Destiny Pharma plc
("Destiny Pharma" or "the Company")

Destiny Pharma initiates research to explore XF drug potential for CF

Study to investigate the potential of XF-73 to treat MRSA infection in people with cystic fibrosis

Brighton, United Kingdom – 14 August 2024 – Destiny Pharma (JPJ: DEST), a clinical stage biotechnology company focused on the development and commercialisation of novel medicines to prevent and cure life threatening infections, is pleased to announce the initiation of a research project to test a potential treatment for people with cystic fibrosis. This programme, supported in part by the U.S. Cystic Fibrosis Foundation, will evaluate the potency of XF platform drugs against a range of contemporary clinical isolates of the bacterial superbug Methicillin-resistant *Staphylococcus aureus* (MRSA) collected from the lungs of people with cystic fibrosis (CF) in the United States.

Destiny Pharma is providing the Company's proprietary XF-73 drug to the CF Foundation National Resource Center for Microbiology at the Seattle Children's Hospital. The studies will involve:

1. Measuring the potency of XF-73 against 33 contemporary MRSA isolates from people with CF
2. The impact of mucus, which protects MRSA from traditional antibiotic treatment, on the activity of XF-73 will also be evaluated

CF is a progressive, genetic disease that affects the lungs, pancreas, and other organs. There are nearly 40,000[1] children and adults living with CF in the United States and an estimated 105,000 people have been diagnosed with CF across 94 countries, with a further 35% estimated to be undiagnosed[2]. People with CF have a dysfunctional cell membrane protein, which causes the overproduction of thick and sticky mucus. The mucus clogs airways in the lungs and traps bacteria, leading to infection, respiratory failure, and other complications. MRSA infections are much higher in people with CF than in the general population. It is now found in more than 15% of people with the disease. MRSA is resistant to multiple antibiotics, and lung infections caused by the bacteria often become long-term.

The work investigating the utility of XF-73 against MRSA in CF follows on from recent peer-reviewed publications demonstrating that XF-73 has superior activity compared to mupirocin against MRSA isolates in a superficial skin infection model[3]; and that XF-73 has activity against 840 MRSA clinical isolates from patient infections from around the world[4]. Further data on the ability of XF-73 to prevent bacterial invasion of the bloodstream by MRSA in an *in vivo* burn wound model is to be presented at this year's Infection Prevention Society Conference.

Dr Bill Love, Chief Scientific Officer of Destiny Pharma, said: "*We are excited to initiate this vital research and have high hopes of demonstrating potentially useful activity of XF-73 given our recent publication of activity against hundreds of MRSA strains[4] and activity against bacteria within biofilms[5]. The challenge here will be to explore our drug activity in the presence of mucus which forms a major barrier, causing antibiotic treatment failure*."

References:

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3. Zhang C, Li J, Lu R, Wang S, Fu Z, Yao Z., 2023. Efficacy of a Novel Antibacterial Agent Exeporfinium Chloride, (XF-73), Against Antibiotic-Resistant Bacteria in Mouse Superficial Skin Infection Models. Infect Drug Resist. 2023 Jul 25;16:4867-4879. doi: 10.2147/IDR.S417231. PMID: 37520450.
4. Rhys-Williams W, Galvin HM, Love WG., 2023. Screening of the novel antimicrobial drug, XF-73, against 2,527 *Staphylococcus* species clinical isolates. Front Cell Infect Microbiol. 2023 Oct 11;13:1264456. doi: 10.3389/fcimb.2023.1264456. PMID: 37900306.

5. Ooi N, Miller K, Randall C, Rhys-Williams W, Love W, Chopra I., 2010. XF-70 and XF-73, novel antibacterial agents active against slow-growing and non-dividing cultures of Staphylococcus aureus including biofilms. J Antimicrob Chemother. 2010 Jan;65(1):72-8. doi: 10.1093/jac/dkp409. PMID: 19889790.

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About Destiny Pharma
Destiny Pharma is an innovative, clinical-stage biotechnology company focused on the development and commercialisation of novel medicines that can prevent life-threatening infections. The Company's drug development pipeline includes two late-stage assets XF-73 Nasal gel, a proprietary drug targeting the prevention of post-surgical staphylococcal hospital infections including MRSA and NTCD-M3, a microbiome-based biotherapeutic for the prevention of C. difficile infection (CDI) recurrence which is the leading cause of hospital acquired infection in the US.

For further information on the company, please visit www.destinypharma.com.