New in vivo data suggests ROCK2 has broad potential in fibrosis

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First-in-man studies, targeting NASH, planned for 2020

Alderley Park, 12 February 2019 Redx (AIM: REDX), the drug discovery and development company focused on cancer and fibrosis, announces promising preclinical efficacy data for its lead selective ROCK2 compound.

Redx reports new data from three independent preclinical animal models of lung, kidney and liver fibrosis, which show that the Company's lead ROCK2 compound, dosed therapeutically once fibrosis is initiated, was able to suppress collagen deposition and pathways associated with fibrosis, indicating that selective ROCK2 inhibition can have an impact on established fibrosis. The data from separate studies suggest that Redx's compound possesses a suitable pharmacokinetic profile for an orally bioavailable drug and has a low propensity to inhibit key drug metabolising Cytochrome P450 enzymes, making it less likely to interact with other drugs. The data from these studies will be presented later in 2019 at a scientific meeting.

Following final safety evaluations, the Company plans to nominate a drug candidate for the ROCK2 programme by mid 2019. If nominated for development, the novel selective ROCK2 inhibitor will be developed as an orally administered, first-in-class treatment for the non-alcoholic steatohepatitis (NASH) with first-in-man studies commencing in 2020. NASH is a progressive disease of the liver caused by a build-up of fatty deposits leading to inflammation, tissue damage, tissue remodelling and fibrosis, reducing the metabolic function of the liver. There are currently no approved treatments for NASH and there is a clear need for new therapies.

Dr Richard Armer, Chief Scientific Officer, Redx Pharma plc commented: "ROCK2 plays a central role in metabolic and fibrotic disease. Generating highly selective ROCK2 inhibitors, without the significantly limiting hypotension observed with systemic use of existing non-selective ROCK1/2 inhibitors, has been a key research challenge. We are very encouraged to generate a highly selective ROCK2 inhibitor series where the lead compound has demonstrated anti-fibrotic effects pre-clinically in a broad range of organ models without any observed toxicity."

Lisa Anson, Chief Executive Officer, Redx Pharma plc added: “We are encouraged by the pre-clinical data announced today by Redx. Liver fibrosis associated with NASH remains a condition with a clear unmet medical need and we hope that Redx’s research into ROCK2 inhibition progresses into the clinic, potentially producing further data which could lead to a new treatment option for liver fibrosis patients.”

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About Redx Pharma Plc

Redx is a UK based biotechnology company whose shares are traded on AIM (AIM:REDX). Redx's vision is to become a leading biotech focused on the development of novel precision medicines that have the potential to transform treatment in oncology and fibrotic diseases.

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About NASH (Non-alcoholic Steatohepatitis)

NASH is an inflammatory and fibrotic disease of the liver that develops following non-alcoholic fatty liver disease (NAFLD) – a condition where fatty deposits build-up in liver tissue. It is estimated around 25-30% of adults in the developed world have NAFLD, with fatty liver often caused by diabetes, obesity, poor diet and lack of exercise. Whilst lifestyle changes can reverse NAFLD in the early stages, this goal is unachievable for most patients, and the progressive inflammation leads to tissue remodelling and fibrosis to the extent where the disease is no longer reversible with changes in patient lifestyle. Fibrotic tissue build-up results in loss of metabolic function in the liver and reduced blood flow, known as NASH. NASH progresses through different stages, each with increasing severity. In 2016, the prevalence of NASH F1-F3 worldwide was approximately 44 million with numbers expected to rise to 67 million by 2030[1]. In the final stages (F4), patients have a condition known as cirrhosis, a severely debilitating disease caused by a heavily scarred liver with minimal function remaining. The worldwide prevalence of F4 cirrhosis was 3.6 million in 2016 and is set to more than double to 8.2 million by 2030[1]. These cirrhosis patients are also at high risk of developing hepatocellular carcinoma (HCC), the third leading cause of cancer deaths worldwide. There are currently no approved treatments for NAFLD or NASH and there is a need for new therapies to address these diseases and specifically the treatment of fibrosis that causes loss of liver function.

About ROCK2 (Rho-associated protein kinase 2) inhibitors

ROCK2 is an intracellular kinase with multiple cellular functions. ROCK2 signalling plays a key role in both the inflammatory component and the tissue re-modelling that drives disease progression in many fibrotic conditions. ROCK2 has been shown to be up-regulated in acute inflammatory injury and in chronic diseases such as diabetes and metabolic syndrome. Furthermore, ROCK2 is upregulated in models of liver fibrosis and been shown to modulate activation of the hepatic stellate cells, the

central drivers of fibrosis in the liver. Targeting ROCK2 in fibrosis is a clinically validated approach with Kadmon's KD025, a ROCK2 inhibitor in clinical development for IPF and cGVHD. However, this compound is potentially limited by its interaction with Cytochrome P450 enzymes which have led Kadmon to undertake clinical drug-drug interaction studies. The Redx ROCK2 selective inhibitor compound has a good ADME profile with a low propensity to inhibit key drug metabolising cytochrome P450 enzymes which is encouraging for clinical use in co-administration with concomitant medications in conditions such as NASH.

1. Estes *et al*, Journal of Hepatology, 2018;(69),896-904.