

MiNA Therapeutics presents proof of mechanism data on MTL-STING as a novel cancer immunotherapy

MTL-STING is the second drug candidate to be advanced from the Company's internal pipeline of small activating RNA therapeutics

STING is a highly validated drug target that plays a key role in immune evasion in cancer

London, United Kingdom, 11 April 2022 – MiNA Therapeutics Limited (“MiNA” or the “Company”), the pioneer in small activating RNA (RNAa) therapeutics, presents preclinical proof of mechanism data on MTL-STING as a novel cancer immunotherapy. The data validates the drug candidate's ability to upregulate the STING protein and related downstream pathways of innate immunity through gene activation. The data was presented at a poster session on 10 April 2022 at the American Association for Cancer Research's (AACR) annual meeting in New Orleans, entitled ‘*MTL-STING restores endogenous STING expression for improving efficacy of cancer therapeutics.*’

Robert Habib, CEO of MiNA Therapeutics, commented:

“We are very pleased to present this encouraging data and to advance MTL-STING further in development. It is the second drug candidate in our internal pipeline of RNAa therapeutics. Upregulation of the STING protein is a radically new approach to improving the innate immune response in cancer patients and enhancing the effectiveness of existing anti-cancer therapies. Demonstrating that MTL-STING can increase levels of STING protein and activate downstream innate immune pathways is a major step towards this goal, and in expanding the possibilities of RNAa therapeutics.”

STING (stimulator of interferon genes) is a master regulatory protein that is essential for identification of cancer cells by the immune system. Downregulation of STING has been reported as a key immune-evasion mechanism in cancer patients and a root cause of inactivation of the cGAS-cGAMP-STING pathway of innate immune response.

Upregulating STING presents a novel therapeutic approach to address immune evasion and improve the effectiveness of existing immunotherapies in cancer patients. To date, therapeutics seeking to drug the cGAS-cGAMP-STING pathway have provided limited benefit to cancer patients. Largely small molecule agonists, they have failed to address the underlying downregulation of STING itself and, in addition, have been limited by safety and bioavailability.

The preclinical data presented at AACR demonstrated that MTL-STING upregulated STING mRNA production by more than fivefold, consistent with the activity required to restore STING to homeostatic levels in cancer patients. Importantly, upregulation of STING mRNA was durable, leading to increased levels of STING protein and downstream functional activation of innate immune pathways. MTL-STING is initially being developed as a combination treatment for solid tumour malignancies, with the expectation to enter Phase 1 evaluation in 2023.

MTL-STING is the second drug candidate to be advanced from MiNA's internal pipeline of RNAa therapeutics. MiNA's first drug candidate, MTL-CEBPA, is currently being evaluated in a global Phase 2 clinical trial in combination with sorafenib in advanced hepatocellular carcinoma (HCC or liver cancer). RNAa therapeutics are a revolutionary new class of medicines that can restore or boost normal function within patients' cells by selectively activating genes.

The poster presented at AACR will be made available on the Company's website at <https://minatx.com/rna-activation/publications/>.

About MiNA Therapeutics

MiNA Therapeutics is the global leader in small activating RNA therapeutics or RNAa. Harnessing innate mechanisms of gene activation, RNAa therapeutics are a revolutionary new class of medicines that can restore or boost normal function of genes and thereby protein-modulated pathways in patients' cells. We are advancing a proprietary pipeline of new medicines with an initial focus on genetic diseases and cancer, while collaborating with leading pharmaceutical companies to apply our technology

platform across a broad range of other therapeutic areas. Based on our unique know-how in RNA activation, we are expanding the possibilities of RNA-based medicine for patients. www.minatx.com

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