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ASX RELEASE

CimetrA™ Pre-clinical Trial Progress Report

Key Highlights:

- Preliminary results from a Pre-clinical In-vitro study indicate that **CimetrA™** has a wide-ranging application as an anti-inflammatory treatment, through the modulation of the production of pro-inflammatory cytokines.
- The study, undertaken by Israeli contract research organisation, Science in Action, examined the specific mechanism of **CimetrA™**'s anti-inflammatory effect on Human peripheral blood mononuclear cells.
- The results support previous findings from a study untaken by MGC Pharma in 2020 on patients suffering from moderate COVID-19, where the **CimetrA™** formulation was shown to modulate the body's over production of cytokines, which can lead to a Cytokine Storm, a severe immune reaction seen as a sudden increase in different pro-inflammatory cytokines, including IL-1, IL-6 and TNF-α.
- **CimetrA™** has been found to be able to moderate the body's release of pro-inflammatory cytokines by the inhibition on their mRNA expression and complete abortion of transcription factors that induce the secretion of pro-inflammatory cytokines.
- One of the key findings of the current study was the effect of **CimetrA™** effectively blocking the IL-32mRNA expression, the pro-inflammatory cytokine related to Rheumatoid Arthritis, Inflammatory bowel disease, Asthma, Psoriasis and Chronic obstructive pulmonary disease[1].
- Further studies will now take place to explore additional aspects of **CimetrA™**'s action and to discover other positive impacts that the product may have on cytokines.

MGC Pharmaceuticals Ltd (ASX, LSE: MXC, 'MGC Pharma' or 'the Company'), a European based bio-pharma company specialising in the production and development of phytomedicines, is pleased to provide an update on its pre-clinical In vitro study into **CimetrA™**, MGC Pharma's proprietary Investigation Medicinal Product (IMP), mechanism of action in inhibiting cytokine production.

Results from the study indicate that **CimetrA™** may have a wider-ranging application as an anti-inflammatory treatment, beyond the treatment of the symptoms of COVID-19, which has been the primary focus of clinical trials to date, and which are continuing to be progressed.

The study undertaken by Israeli contract research organisation, Science in Action, built on previous studies commissioned by MGC Pharma, and examined the mechanism of **CimetrA™**'s anti-inflammatory effect in Human Peripheral Blood Mononuclear Cells (PCBC).

The study has found that **CimetrA™** moderates the body's release of pro-inflammatory cytokines by effecting their gene expression and transcription factors.

Specifically, this study has demonstrated the effective blocking of the mRNA expression of IL-32, the pro-inflammatory cytokine related to Rheumatoid Arthritis, Inflammatory bowel disease, Asthma, Psoriasis and Chronic obstructive pulmonary disease.

1. https://www.frontiersin.org/articles/10.3389/fimmu.2022.837588/full#:~:text=Most%20autoimmune%20and%20inflammatory%20diseases,10%2C%2012%E2%80%9314)

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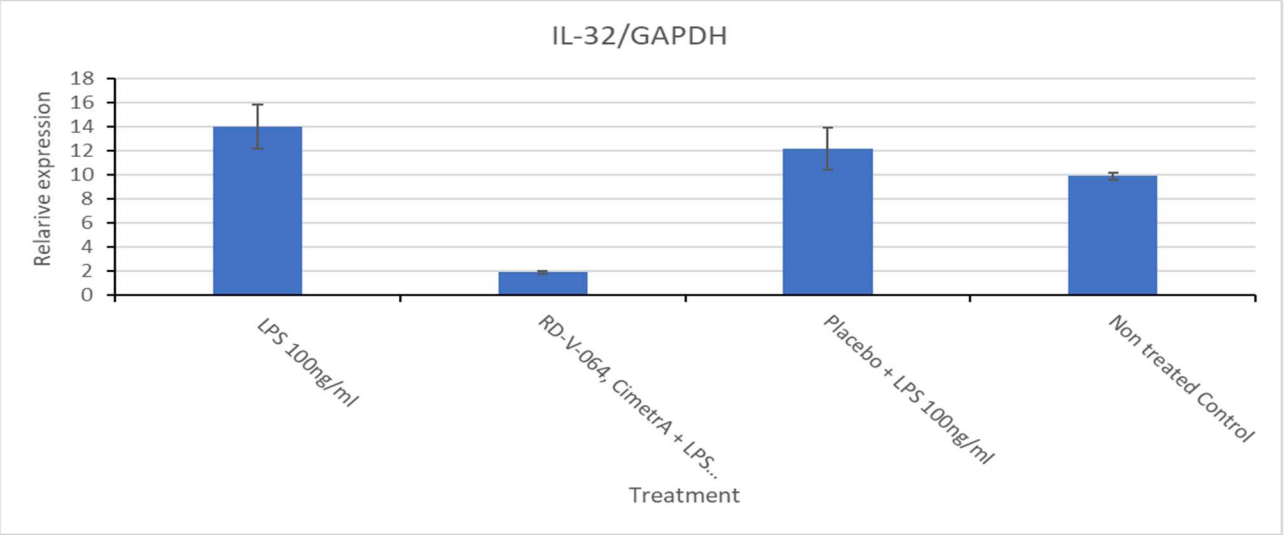
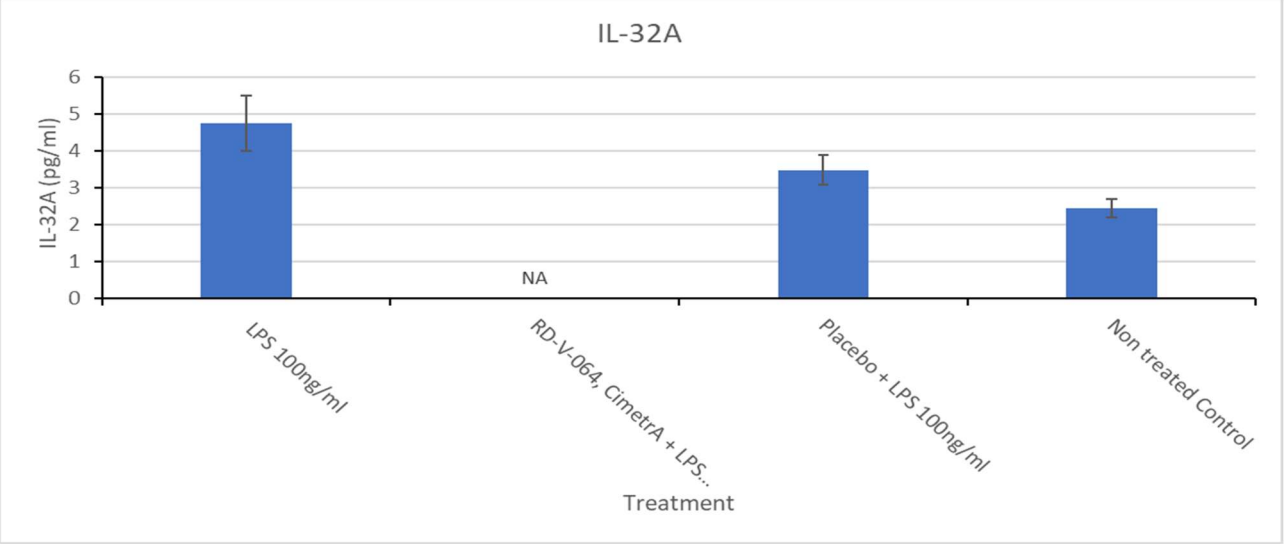
Fig. 1. IL-32 gene expression in PBMCs



The results in Figure 1 show the effect on the production of IL-32 by the Treatment (**CimetrA™**) on prepared PBMCs, compared to IL-32 production on non-CimetrA™ treated cells.

IL-32 stimulates the secretion of inflammatory cytokines by activating NF-κB and p38 mitogen-activated protein kinase (2).

Fig. 2. Concentration of IL-32 in PBMCs supernatant



The study results shown in Figure 2, demonstrated that **CimetrA™** completely aborted LPS-induced IL-32 secretion in PBMCs.

Previous clinical trials have indicated that **CimetrA™** is effective in inhibiting a cytokine storm, which is seen as a sudden increase in different pro-inflammatory cytokines, including IL-1, IL-6 and TNF-α, associated with COVID-19, and was able to treat both mild and severe cases of the disease.

Following this successful study, MGC Pharma plans to further explore aspects of **CimetrA™**'s profile and mechanism of action and begin planning the next phases of its clinical development.

Roby Zomer, co-founder and Managing Director of MGC Pharmaceuticals, commented: "*We have long had confidence in CimetrA, and this latest study on its mechanism of action highlights even more potential applications for the product. This is a big leap forward, with more conditions potentially being treatable with the drug.*

Its anti-inflammatory profile means that it could transform the lives of thousands of patients, and it is particularly reassuring that these latest results confirm the findings of previous studies.

In light of these results, MGC is in the process of designing the next phase of CimetrA's clinical pathway and will keep everyone updated."

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About MGC Pharma

MGC Pharmaceuticals Ltd (LSE: MXC, ASX: MXC) is a European based bio-pharma company developing and supplying affordable standardised phytomedicines to patients globally. The Company's founders were key figures in the global medical cannabis industry and the core business strategy is to develop and supply high quality phytocannabinoid derived medicines for the growing demand in the medical markets in Europe, North America and Australasia. MGC Pharma has a robust product offering targeting two widespread medical conditions – Epilepsy and Dementia – and has further products in the development pipeline.

Employing its 'Nature to Medicine' strategy, MGC Pharma has partnered with renowned institutions and academia to optimise cultivation and the development of targeted phytocannabinoid derived medicines products prior to production in the Company's EU-GMP Certified manufacturing facility.

MGC Pharma has a number of research collaborations with world renowned academic institutions, and including recent research highlighting the positive impact of using specific phytocannabinoid formulations developed by MGC Pharma in the treatment of glioblastoma, the most aggressive and so far therapeutically resistant primary brain tumour.

MGC Pharma has a growing patient base in Australia, the UK, Brazil and Ireland and has a global distribution footprint via an extensive network of commercial partners meaning that it is poised to supply the global market.

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