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ASX RELEASE

Completion of CimetrA™ Mechanism of Action study

Key Highlights:

- MGC Pharma has completed an in-vitro pre-clinical study on CimetrA™'s mechanism of action (MoA)
- The study, which was carried out at the GLP-Certified Science in Action Lab, in Ness Ziona, Israel, examined the mechanism underlying the CimetrA™-mediated anti-inflammatory effect on human Peripheral Blood Mononuclear Cells (PBMC)
- The study demonstrated the inhibitory effect of CimetrA™ on the mRNA expression and, as a result, on the secretion of IL-32 proteins and the subsequent suppression of inflammation and inflammatory cytokines
- Additional findings show that CimetrA™ increases intracellular HO-1 the antioxidant activity in cells, protecting against oxidative stress that causes the inflammation
- Further demonstrates CimetrA™'s ability to be extended into the anti-inflammatory market

MGC Pharmaceuticals Ltd ('**MGC Pharma'** or '**the Company**') a European based pharmaceutical company specialising in the production and development of plant inspired medicines, has completed the pre-clinical study on CimetrA™, exploring the Mechanism of Action (MoA) of the product.

The study was conducted on human Peripheral Blood Mononuclear Cells (PBMC) crucial in the immune response, the results of which are consistent with previous reports. The administration of CimetrA™ before and during Lipopolysaccharide (LPS) stimulation to produce an immune response and induce cytokine generation, resulted in a significant decrease in IL-32 mRNA expression and a resulting decrease in inflammation.

As such, we conclude that the presence of the IL-32 mRNA protein plays a critical role in the secretion of the cytokines (Figure 1), such as tumour necrosis factor-alpha (TNF-α) and IL-6 (Figure 2), that cause inflammation. Control of this protein is then the fundamental pathway to manage and reduce inflammation. The preclinical study demonstrates that the Mechanism of Action in MGC's core development product, CimetrA™ is the suppression of IL-32 protein via effect on the mRNA expression. The graph below demonstrates the decreased (up to undetectable values) IL-32A level after the treatment of the PBMC induced tissue with CimetrA in comparison with the baseline (LPS column), Placebo treatment and not treated control.

Figure 1. Showing secretion of the cytokines in IL-32

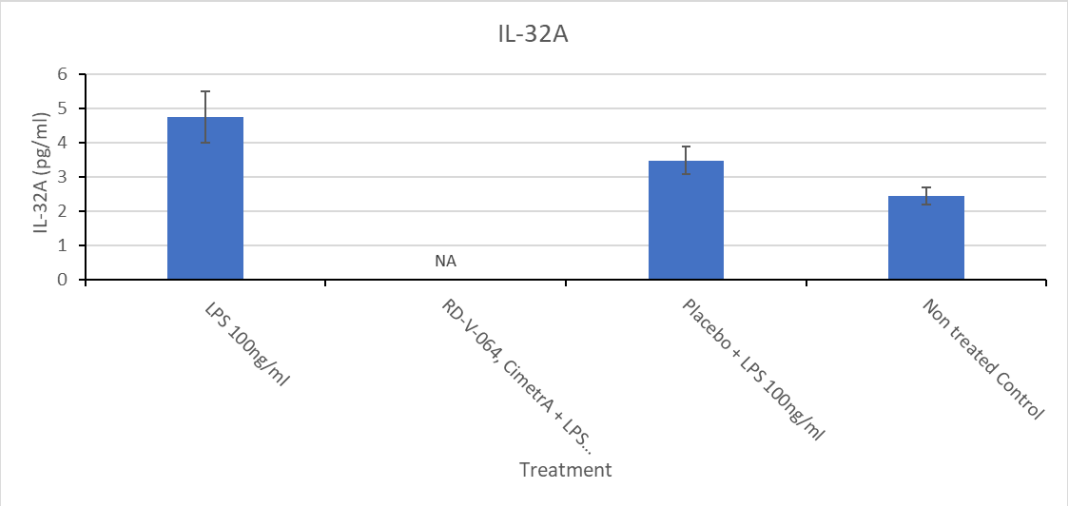
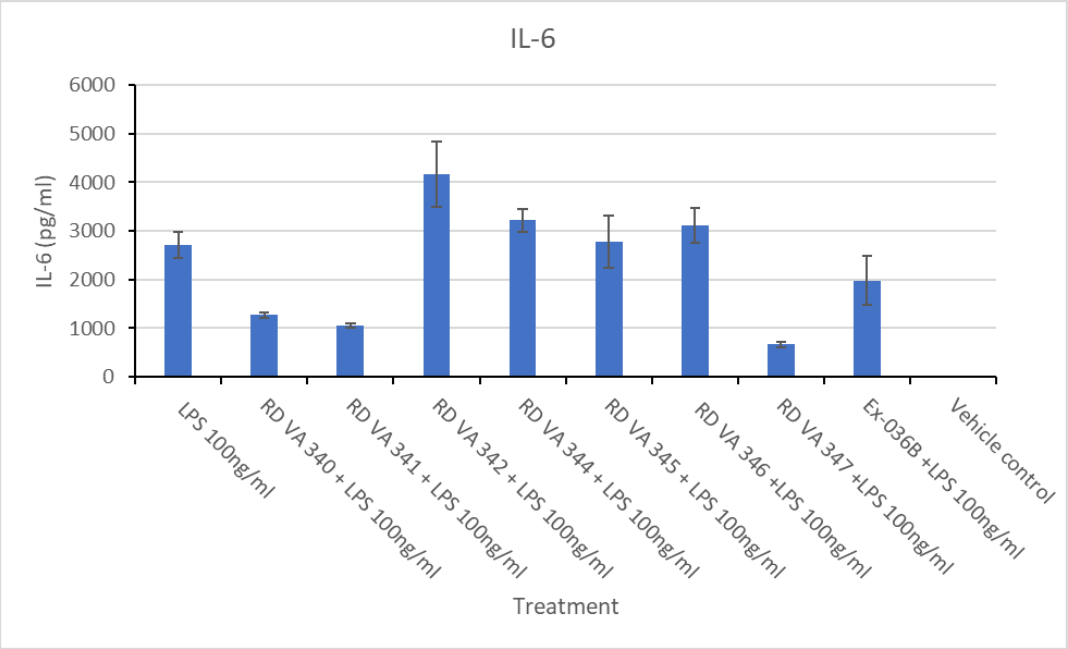
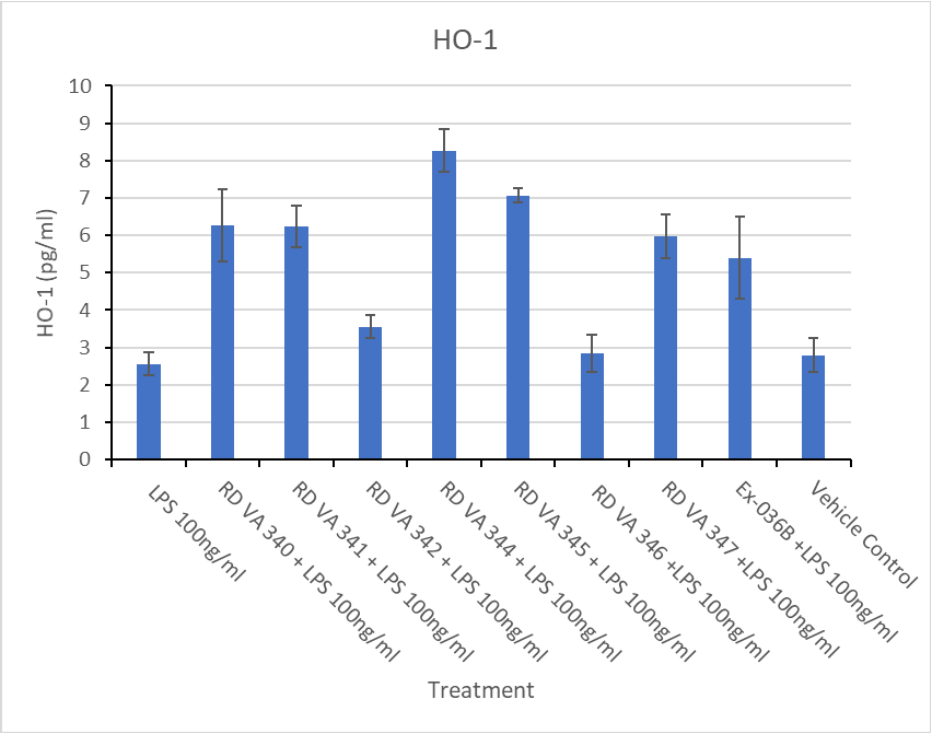


Figure 2. Showing secretion of the cytokines in IL-6 in induced PBMC tissue in different concentrations of CimetrA active ingredients. RD VA340 – compound used in the current clinical study, decreased the level of IL-6.



Additional findings in the study showed an increase in intracellular Heme-Oxygenase-1 (HO-1) levels (Figure 3). HO-1 is an enzyme which facilitates the breakdown of metabolites in the cell, enhancing the antioxidant activity and providing protection against oxidative stress, which can cause inflammation. This is a further indication as to the CimetrA™ MoA and its treatment of inflammatory disease including COVID-19, seasonal cold and flu, among others.

Figure 3. Showing an increase in intracellular Heme-Oxygenase-1 (HO-1) levels in induced PBMC tissue in different concentrations of CimetrA active ingredients. RD VA340 – compound used in the current clinical study, increased the level of HO-1.



This study is the final preclinical mechanism of action study and will enable the Company to expand the trials in future to show its efficacy against further indications. The study results will form part of the US Food and Drug Administration (FDA) application to register CimetrA™ as an Investigational New Drug (IND). The trial was carried out at the GLP-certified Science in Action Laboratory in Ness Ziona, Israel.

Roby Zomer, co-founder and Managing Director of MGC Pharmaceuticals, commented: "The completion of this study has advanced our understanding of the biological mechanisms and demonstrate CimetrA™'s effective in the treatment of inflammatory disease, which will allow us to open the target market not only as Covid-19 treatment but to the whole Anti-Inflammatory treatments, such keeping the relevancy of CimetrA™ as more than just seasonal hype treatment but as long term treatment offering"

"The data from this study provides critical confirmation in the pathway to drug development and means that we can further target the specific biological functions in our formulation."

Authorised for release by the Board, for further information please contact:

MGC Pharmaceuticals Ltd
Roby Zomer
CEO & Managing Director
+61 8 6382 3390
info@mgcpharma.com.au

MGC Pharmaceuticals Ltd
Arron Canicais / Rowan Harland
Joint Company Secretaries
+61 8 6382 3390
info@mgcpharma.co.uk

UK Financial and Corporate Advisor
SW4
Rupert Fane / Nilesh Patel
+44 7810 056 104
rf@hannam.partners / nilesh@hannam.partners

UK Brokers
Peterhouse Capital
Charles Goodfellow / Lucy Williams
+44 207 469 0930
cg@peterhousecap.com / lw@peterhousecap.com

UK PR Advisors
Tavistock
Charles Vivian / Tim Pearson
+44 207 920 3150
mgcpharma@tavistock.co.uk

About MGC Pharma

MGC Pharmaceuticals Ltd (LSE: MXC, ASX: MXC) is a European based pharmaceutical company, focused on developing and supplying accessible and ethically produced plant inspired medicines, combining in-house research with innovative technologies, with the goal of finding or producing treatments to for unmet medical conditions.

The Company's founders and executives are key figures in the global pharmaceuticals industry and the core business strategy is to develop and supply high quality plant inspired medicines for the growing demand in the medical markets in Europe, North America and Australasia.

MGC Pharma has a robust development pipeline targeting two widespread medical conditions and has further products under development.

MGC Pharma has partnered with renowned institutions and academia to optimise the development of targeted plant inspired medicines, to be produced in the Company's EU-GMP Certified manufacturing facilities.

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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