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Patent Application for Cannabinoid Drug Delivery System Successfully Submitted to European IP Office

Key Highlights:

- MGC Pharma has recently received formal notification of the acceptance of its Patent Application for the Self-nanoemulsifying drug delivery system of Cannabinoids-Ionic Complex Concentrate by the Slovenian Intellectual Property Office, the priority date for the Patent is 30 June 2021
- This is a novel formulation that increases the bioavailability of Phytocannabinoid medicines (including MGC Pharma's treatments for neurological conditions, CannEpil™ and CogniCann™) and enables the implementation of higher concentrations of CBD which can pass across the Blood Brain Barrier in globular molecules below 50 nanometres (nm) in diameter
- This initial Patent Application gives MGC Pharma priority to file subsequent patent applications for the product in other jurisdictions and Intellectual Property (IP) agencies
- MGC Pharma expects the Patent to be issued within the next 12 months
- The Self-nanoemulsifying Cannabinoids-Ionic Complex concentrate utilises Graft Polymer's proprietary GraftBio™ Self-Nanoemulsifying Drug Delivery System technology, which is a unique platform to deliver active ingredients more effectively in higher concentrations to the cells, improving the bioavailability and synergy of natural active ingredients

MGC Pharmaceuticals Ltd (ASX, LSE: MXC, 'MGC Pharma' or 'the Company'), a European based bio-pharma company specialising in the production and development of phytocannabinoid-derived medicines, today announces the successful submission of the Company's Self-Nano Emulsifying Cannabinoids-Ionic Complex Concentrate Drug Delivery System (SNEDDS) to the Slovenian Intellectual Property Office (SIPO), with the resulting Patent to be assigned to MGC Pharma.

The Patent Application (file number P-202100132) was accepted on the 30th June 2021, the priority date for the Patent, meaning that MGC Pharma has the right to file subsequent applications with other IP Agencies in various jurisdictions.

MGC Pharma anticipates that the Patent for its novel SNEDDS formulation will be issued within the coming 12 months.

The Patent

The Patent Application sets out the formulation of the SNEDDS, the method of manufacture, and its capacity for enhancing stability, solubility, and bioavailability of drugs designed for multiple neurological therapeutic applications.

Cannabidiol (CBD) has been traditionally administered in either oil- or alcohol-based formulations which vary greatly in bioavailability (the proportion of a drug which enters circulation when introduced to the body). The self-nanoemulsifying drug delivery system, the subject of MGC Pharma's Patent Application, enables the administration of higher concentrations of CBD (at 100-200 milligrams per ML) needed for the treatment of neurological conditions at increased bioavailability. The molecule emulsifies immediately at the oral mucosa epithelium, resulting in instant bio-trade into the blood plasma.



The SNEDDS is based on the Type IV (oil-free) nanotechnology which guarantees a globular molecule size below 50 nanometres (**nm**) in order to pass through the Blood Brain Barrier, for the treatment of neurological diseases. The Selfnanoemulsifying Cannabinoids-Ionic Complex concentrate is based on an "Ionic Complex" that greatly increases solubility and bioavailability of the Active Pharmaceutical Ingredient, resulting in the reduction in the diameter of the molecule.

MGC Pharma is looking to implement this delivery system in its CannEpil™ and CogniCann™ products, both of which are going through the clinical development process, including clinical trials.

Cannabidiol as Neurological Treatment

Cannabidiol (CBD) has been shown to demonstrate beneficial effects in various clinical studies and found to have antioxidative, anti-inflammatory¹, and neuroprotective properties², and has become a supplemental therapy for a number of neurological conditions including multiple sclerosis, neurodegenerative disorders (such as Parkinson's disease, Huntington's disease, Tourette's syndrome, Alzheimer's disease), epilepsy, chronic pain, neuralgia³ as well as various psychiatric disorders⁴.

Roby Zomer, Co-founder and Managing Director of MGC Pharma, commented: "The acceptance of this Patent could be transformational for patients who need treatment and therapeutic relief from neurological diseases. The new IP will not only improve MGC Pharma's current formulations, including our phytocannabinoid-based drugs CannEpil™ and CogniCann™, but potentially provide more affordable medicines for patients as a result of the more efficient use of resources in formulations."

"The submission to SIPO provides MGC Pharma with the right to file further applications in multiple jurisdictions and treat people and patients suffering from these conditions on a global scale."

References:

- 1. Sinemyiz Atalay et al. Antioxidative and Anti-Inflammatory Properties of Cannabidiol, Antioxidants (Basel), 2019
- 2. Han Li at al. Overview of cannabidiol (CBD) and its analogues: Structures, biological activities, and neuroprotective mechanisms in epilepsy and Alzheimer's disease, Eur J Med Chem 2020
- 3. Sonja Elsaid et al. Effects of cannabidiol (CBD) in neuropsychiatric disorders: A review of pre-clinical and clinical findings, Prog Mol Biol Transl Sci.
- 4. Stefania Bonaccorso et al. Cannabidiol (CBD) use in psychiatric disorders: A systematic review. Neurotoxicology. 2019

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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 phytocannabinoid derived medicines 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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