



Commercializing
Living Therapies



CCRM Enterprises invests in Mediphage's novel gene therapy platform

December 16, 2021 (Toronto, ON) – CCRM Enterprises Inc., the venture investment arm of CCRM, is excited to announce an investment into Mediphage Bioceuticals, Inc., a preclinical genetic medicine company spun-out from the University of Waterloo. The investment from CCRM Enterprises will be used to fund the development of the technology and ongoing operations, and includes access to CCRM's scientific and manufacturing expertise. CCRM is a leader in developing, manufacturing, and commercializing regenerative medicine-based technologies and cell and gene therapies.

Cynthia Lavoie, President and Chief Investment Officer of CCRM Enterprises, commented: "We are very pleased to add Mediphage to our portfolio. Mediphage is developing a novel non-viral gene therapy platform that paves the way for personalized genetic medicine that's safe and effective, and avoids many of the pitfalls associated with the current viral vector-based gene therapy technologies."

Mediphage is developing a safe and redosable non-viral gene delivery platform based on its proprietary ministring DNA (msDNA) technology. msDNA is a non-viral DNA vector capable of carrying a large genetic cargo that can be expressed directly in patients' cells and tissues for therapeutic applications. msDNA has the added benefit of limited to no risk of integration into the genome, being devoid of elements that provoke an immune response; therefore it mitigates the serious side effects associated with traditional gene therapy approaches such as cytotoxicity and off-site integration. Mediphage's platform is versatile, appropriate for several *in vivo* and *ex vivo* cell types and has the potential to address a broad range of applications, including gene and cell therapy, gene editing, viral vector plasmid production, and DNA vaccines. Mediphage is currently exploring the therapeutic applications of msDNA in CNS and ocular diseases. Learn more about Mediphage's unique msDNA technology [here](#).

Mediphage CEO Alvaro Amorrortu commented: "We welcome CCRM as a key partner to allow us to rapidly advance the therapeutic applications of Mediphage's non-viral genetic medicine platform. CCRM is a recognized leader in the development, manufacture, and commercialization of regenerative medicine-based technologies. We look forward to partnering with CCRM's experts to develop best-in-class products to treat challenging genetic diseases."

Regenerative medicine companies have raised US\$19.9B¹ in the first three quarters of 2021 (a 25 per cent increase year-on-year) according to the [Alliance for Regenerative Medicine](#). Regenerative

¹ All amounts are in U.S. dollars

medicine includes gene therapies, cell therapies, and tissue-engineered products intended to repair, replace, or regenerate organs, tissues, cells, genes, and metabolic processes in the body. Gene therapies alone have attracted \$9.1B of investment in the first three quarters of this year, a 40 per cent year-on-year increase. Venture capital is driving much of this record financing, with \$8.2B raised through Q3 2021. This includes \$492M raised in Series A rounds, \$2.5B in Series B rounds, and \$977M in Series C rounds, demonstrating the maturity of the sector.

About CCRM Enterprises Inc.

CCRM Enterprises Inc. is the for-profit venture investment arm of CCRM. CCRM Enterprises invests in early-stage ventures and projects developing therapeutics and enabling technologies. Through an extensive network of investors, it brings together risk capital to support early-stage ventures as they scale-up along the development pathway. By tapping into CCRM's manufacturing infrastructure and expertise, CCRM Enterprises provides capital-efficient support to accelerate early-stage ventures with high potential, further enabling the development of an advanced therapies ecosystem. **CCRM Enterprises Holdings Ltd.** is the associated entity that holds shares in CCRM portfolio companies. Learn more about our investment strategy [here](#).

About CCRM

CCRM is a global, public-private partnership headquartered in Toronto, Canada. It receives funding from the Government of Canada and leading academic and industry partners. CCRM supports the development of regenerative medicines and associated enabling technologies, with a specific focus on cell and gene therapy. A network of researchers, leading companies, strategic investors and entrepreneurs, CCRM accelerates the translation of scientific discovery into new companies and marketable products for patients, with specialized teams, funding and infrastructure. CCRM is the commercialization partner of the University of Toronto's Medicine by Design. CCRM is hosted by the University of Toronto. Visit us at ccrm.ca.

About Mediphage

Mediphage is a spin-off from the University of Waterloo. Mediphage is a non-viral gene therapy company located at JLABS in Toronto, Canada. Our proprietary core technology, ministring DNA (msDNA), is a novel non-viral vector that is designed to overcome critical challenges facing viral gene therapies and leverage advancements of non-viral gene therapy technologies. Leveraging the versatility of our msDNA non-viral technology, we are developing innovative solutions to the challenges faced with genetic and infectious diseases that have limited, or no treatment options available at present. Find out more at mediphage.ca

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