NEWS RELEASE

FOR IMMEDIATE RELEASE

Wednesday, August 9, 2023

MOUNTAIN VALLEY MD ANNOUNCES PUBLICATION OF SOLUVEC™ TRIAL DATA IN THERAPEUTIC DELIVERY

Compared to traditional methods, Soluvec™ demonstrated significant enhancement in Ivermectin solubilization and bioavailability.

Toronto, Ontario – August 9, 2023 - Mountain Valley MD Holdings Inc. (the "**Company**" or "**MVMD**") (CSE: MVMD) (OTCQB: MVMDF) (FRA: 20MP), a leading-edge publicly traded biotech company whose science includes that of novel solubilization methods for therapeutic compounds, is pleased to announce the recent peer-reviewed publication of the Company's Soluvec™ study data in the journal, *Therapeutic Delivery.* The published study highlights the benefits of the Company's patented Soluvec™ formulation, a novel, solvent-free aqueous Ivermectin invention. This proprietary Soluvec™ formulation was developed using the Company's patented Quicksol™ solubilization technology, which aims to address the poor solubility challenges associated with Ivermectin and potentially other macrocyclic lactones.

The study confirmed that parenteral administration of Soluvec™ led to an Ivermectin drug exposure approximately seven times higher than traditional oral drug dosing, with greater bioavailability, offering potential for enhanced therapeutic effectiveness.

Key Findings from the Study:

- **Improved Solubility with Soluvec™:** In the resolubilized product, Soluvec™, Ivermectin was present as a mix of 28.0 nm particles and polysorbate-solubilized free Ivermectin. The total concentration was approximately 2,500 times greater than that of free Ivermectin in water.
- **IVM Exposure Seven Times Higher:** In beagle dogs treated parenterally with Soluvec (subcutaneous or intramuscular dosing), total exposure of Ivermectin was ~seven-times higher than in dogs receiving a non-solubilized Ivermectin tablet of the same dose orally.
- **Increased Duration of Exposure:** Peak levels were higher and, most importantly for ease of treatment, duration of exposure was reliably greater with parenteral dosing; all Soluvec-treated animals had detectable IVM at 48 h, versus none of the non-solublized Ivermectin orally dosed animals.
- **Lower Doses Possible:** Enhanced bioavailability of IVM in Soluvec™ suggests that a lower dose may achieve the desired therapeutic effects, potentially leading to reduced treatment costs and fewer side effects.
- **Safety Profile:** Research underscores favourable safety profile of Soluvec™, with minimal side effects generally observed in test subjects.
- **Potential Human and Livestock Applications:** The results point to the possibility of easier treatment regimens and improved therapeutic outcomes not just for livestock but potentially for humans as well.

"MVMD deems this research as particularly significant given our belief, and what is common knowledge among scientists, that the poor solubility of the avermectin drug class (a series of drugs and pesticides used to treat parasitic worms and insect pests) remains a barrier to achieving

and maintaining therapeutic drug levels in humans and livestock species," stated Dennis Hancock, President & CEO of Mountain Valley MD. "As outlined in the publication, it is likely this challenge will continue for the coming decade and may worsen with stronger drug resistance becoming the reality. Conventional Ivermectin formulations simply have not been able to achieve and maintain therapeutic drug levels, compromising the effectiveness of treatments."

The article, titled "Physical and Pharmacokinetic Characterization of Soluvec™, a novel, solvent-free aqueous Ivermectin formulation" is now available online ahead of print production and can be accessed at https://www.future-science.com/doi/10.4155/tde-2023-0021.

"The peer-review process for consideration of publication of MVMD's study is a third-party validation of our science and the potential commercial efficacy of our Soluvec™ product," continued Hancock. "I am very proud of our science team for this accomplishment and look forward to the pending product rollout we anticipate this year in the animal husbandry industry in Bangladesh".

On May 8, 2023, the Company announced it had entered into a licensing and manufacturing license agreement with a privately held Ontario corporation for its Soluvec™ 1% animal husbandry applications for the territory of the People's Republic of Bangladesh.

Quicksol™ is the Company's patented solubilization technology, which has been developed to provide solubilized drug delivery options across the macrocyclic lactone class of anti-parasitic drugs and is the principal technology applied to Soluvec™.

To safeguard its intellectual property and the Company's licensing royalty model, MVMD has filed for its principal Quicksol™ patent protection. These filings target key markets that the Company has deemed strategically important at this time where it is anticipated its Soluvec™ products will be sold in the future. In April 2023, MVMD had filed for Soluvec™ protection in 12 additional markets outside of the United States, including Canada, China, India, Mexico, Sri Lanka, Thailand, Philippines, Malaysia, Brazil, Peru, Argentina, and Chile.

ABOUT SOLUVEC™

Soluvec™ is an innovative, proprietary formulation of Ivermectin (IVM) made using the Company's patented Quicksol™ solubilization technique. This method integrates IVM with cyclodextrin and subsequently resolubilizes it in an aqueous solution fortified with a polysorbate detergent. The Company's Soluvec™ formulation has been demonstrated to achieve an IVM concentration approximately 2500-times higher than its conventional water-soluble counterpart. Early trials on beagle dogs indicate that Soluvec™, when administered parenterally, delivers nearly seven times the systemic exposure of IVM compared to its oral administration. This suggests that Soluvec™ has the potential to expand the efficacy of treatments for parasitic infections and may have implications in human applications including anti-cancer therapies.

ABOUT THERAPEUTIC DELIVERY

In a highly competitive industry, *Therapeutic Delivery* provides the busy researcher with a forum for the rapid publication of original research and critical reviews of all the latest relevant and significant developments, and focuses on how the technological, pharmacological, clinical and

physiological aspects come together to successfully deliver modern therapeutics to patients. The journal delivers this essential information in concise, at-a-glance article formats that are readily accessible to the full spectrum of therapeutic delivery researchers. [1]

[1]Reference: https://www.future-science.com/journals/tde/aims

ABOUT MOUNTAIN VALLEY MD HOLDINGS INC.

Mountain Valley MD is building a world-class organization centered around the implementation, licensing and reselling of key technologies and formulations:

- patented Quicksome™ oral formulation and delivery technologies,
- patented Quicksol™ solubility formulation technology
- licensed product reseller of Agrarius™, a novel agricultural plant signalling technology

Consistent with its vision towards “More Life”, MVMD applies its owned and licensed technologies to its work for advanced delivery of molecules for human and husbandry animal applications, including the development of products for pain management, weight loss, energy, focus, sleep, anxiety, and more. Additionally, MVMD’s work with Agrarius is focused on generating a positive impact on crop yields and reducing fertilizer usage.

MVMD’s patented Quicksome™ technology utilizes proprietary formulations and stabilizing molecules to encapsulate and formulate active ingredients into highly efficient product formats. The result is a new generation of product formulations that could be capable of delivering nutraceutical and drug molecules into the body faster, with greater impact, efficiency and accuracy.

MVMD’s patented Quicksol™ technology covers all highly solubilized macrocyclic lactones that could be effectively applied in multiple viral applications that could positively impact human and animal health globally.

MVMD’s licensed Agrairus™ agricultural plant signalling technology that could be capable of application to agricultural crops to naturally increase yields, reduce fertilizer usage, and increase general resilience to pests and climate change.

For more Company information and contact details, visit www.MVMD.com.
SOURCE: Mountain Valley MD Holdings Inc.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Certain statements contained in this news release may constitute forward-looking information. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "plan", "estimate", "expect", "may", "will", "intend", "should", and similar expressions. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information.

The Company's actual results could differ materially from those anticipated in this forward-looking information as a result of regulatory decisions, competitive factors in the industries in which the Company operates, prevailing economic conditions, and other factors, many of which are beyond the control of the Company. The Company is making forward-looking statements, including but not limited to: enhanced therapeutic effectiveness arising from Soluvec™, potentially leading to reduced treatment costs and fewer side effects, and the possibility of easier treatment regimens and improved therapeutic outcomes for livestock and humans; poor solubility challenges continuing for several years; and the pending product rollout in the animal husbandry industry in Bangladesh . The Company believes that the expectations reflected in the forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information should not be unduly relied upon. Any forward-looking information contained in this news release represents the Company's expectations as of the date hereof and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking information whether as a result of new information, future events or otherwise, except as required by applicable securities legislation.

Neither the CSE nor OTC has reviewed or approved the contents of this press release.