# **NEWS RELEASE**

## FOR IMMEDIATE RELEASE

Thursday, August 10, 2023



## MOUNTAIN VALLEY MD PROVIDES BUSINESS UPDATE

**Toronto, Ontario – August 10, 2023 - Mountain Valley MD Holdings Inc.** (the "**Company**" or "**MVMD**") (CSE: MVMD) (OTCQB: MVMDF) (FRA: 20MP) is pleased to provide a business update and details of its current progress.

The Company has been working towards commercialization of its three core lines of business, which are: a) novel innovations that are designed to improve the administration and efficacy of nutraceutical health and wellness products, b) an agricultural plant signaling technology that is designed to organically drive increases in crop yields and supports the reduction of fertilizer usage where used, and c) the application of solubilized drugs to positively impact the health of husbandry animals and aquatic species.

"The MVMD team and our extensive network of partners has been making significant progress on our commercialization objectives," stated Dennis Hancock, President & CEO of Mountain Valley MD. "It is great to see such tangible progress in support of our business objectives and our vision to positively impact human, plant and animal health."

## LINE OF BUSINESS UPDATES:

### NUTRACEUTICALS

### General and MVMD Proprietary Brands

Following evaluation of North American GMP manufacturing options for MVMD's nutraceutical product strategy, the Company entered into a license agreement with its selected third-party lead production partner in the United States (the "Lead Manufacturer"). The Company's strategy was to secure its lead manufacturing partner as a licensee, who will in turn produce nutraceutical products based on or embodying MVMD's proprietary technologies for third parties approved by and who have an agreement with MVMD and/or for MVMD's own brand(s). The Company believes this strategy of working with the one Lead Manufacturer will help to ensure product quality, support the ability to scale production, streamline the audit process for royalty agreements, and provide the necessary protection of its technology and trade secrets versus having numerous licensees and manufacturers each replicating the manufacturing process for their own products.

Securing the Lead Manufacturer and finalizing the scaled GMP production environment aligns with MVMD's anticipated increased business development efforts that will support the Company's plans to secure additional nutraceutical licensing partnerships.

## Mountains Of... Proprietary Brand

The Lead Manufacturer has been working closely with the Company's formulators on dissolution, flavouring, and production elements for MVMD's proprietary product line, "Mountains Of ... ". Additionally, the Lead Manufacturer has invested in the expansion of its manufacturing facility since March 2023 to provide dedicated space for the specialized equipment that MVMD requires

to manufacture nutraceutical products that embody the Company's Quicksome™ technologies. It is anticipated that full production readiness for MVMD"s proprietary brand products will be achieved in the fall of calendar 2023.

In the fall of 2022 calendar year, the Company applied for, and successfully received, trademark protection for "MOUNTAINS OF" SLEEP, ENERGY, RELIEF, LIBIDO, and LEAN, for its initial GMP product sample development. The "MOUNTAINS OF ..." brand will be used for business development activities focused on securing additional nutraceutical distribution partners that can choose to use the "MOUNTAINS OF" product line or produce proprietary versions with their company's own branding and packaging requirements.

## Circadian Wellness Corp.

MVMD and the Lead Manufacturer have continued work to support the license agreement between the Company and Circadian Wellness Corp. ("Circadian"), an MVMD licensee, to finalize the proprietary formulations for mushroom-infused products that Circadian intends to market under its Eons brand and to finalize the GMP production environment. Circadian's license from MVMD supports the desire to achieve an increase in overall molecule efficacy with the Company's Quicksome™ technology applied across a variety of rapid dissolve sublingual and dermal products in the functional mushroom space. The initial product formulation work and dissolution testing has been positive in MVMD's view and the recent advancements made in the 2023 calendar year align with the anticipated timing to proceed with commercial manufacturing in the fall of calendar 2023. As per the licensing framework with Circadian, the Company is entitled to fees and/or royalties from Circadian for its proprietary formulation work with the application of the Quicksome™ technology to proprietary mushroom-infused formulations.

It is anticipated that Circadian will be introducing a variety of consumer mushroom-infused sublingual products that embody MVMD's technology under its Eons brand for sale in the United States later in the 2023 calendar year.

### **AGRICULTURE**

By virtue of a license arrangement with Agrarius Corp. ("AC"), a private US corporation and owner of Agrarius technology and related products, MVMD is an authorized reseller of Agrarius, a certified organic product owned by AC. The Agrarius product is delivered in a liquid concentrate form that gets mixed with water at the point of application and then applied via sprayer to agricultural crops ideally twice during a plant's lifecycle. The Agrarius product has been tested across numerous major agricultural crops, and has demonstrated its ability to naturally increase crop yields from approximately ten to fifty percent or more depending on crop type, reduce fertilizer usage where used by more than thirty percent, and increase general resilience to pests and climate change forces such as drought.

The Agrarius product works by activating the plants' "defense mechanisms" at the cellular level, without the actual stress factor. The intended effect of the Agrarius product is that treated plants grow deeper roots and open up their foliage to optimize the effect of photosynthesis, thus increasing growth hormones, plant efficiency for water use and nutrients, decreasing the requirement of fertilizer where used, and increasing overall resistance to diseases and stressed climate conditions. Agrarius technology enables direct plant communication by mimicking naturally occurring organic molecules that correspond to various plant survival instincts, which improves the natural defence mechanisms of the plant to overcome environmental stresses. The Agrarius product works by sending signals that a plant understands and propagates through its roots and mycelial networks, allowing nearby plants to benefit from the signals naturally while

reducing the actual amount of product that is used on a field. These signals literally send information that stimulates plant growth, subsequently increasing yields, volatility resistance, and growth speeds.

Agrarius received organic certification through the Organic Materials Review Institute (OMRI). According to its website (omri.org), OMRI is a non-profit organization that provides an independent review of products, such as fertilizers, pest controls, livestock health care products, and numerous other inputs that are intended for use in certified organic production and processing. OMRI reviews products against organic standards and once approved, acceptable products appear on the OMRI Products Lists© on their company website.

MVMD believes Agrarius presents a significant opportunity to support its growth objectives given the rapidly changing global agricultural landscape due to mass fertilizer shortages, population growth, and urban sprawl limiting available farmlands and has focused its recent resources on the development of this line of business. MVMD is currently conducting business development activity in Mexico, Central America, South America, and the United States of America. The focus of the current business development activities has been to target large scale farming operations to induce trial activity on crops that would demonstrate the benefit to improving crop yields and the corresponding reduction in fertilizer usage where used in the specific farming operation. There are currently more than 30 active crop trials being conducted by targeted large scale farming operations, representing a potential multi-million dollar field coverage pipeline if the clients were to purchase Agrarius product from the Company after successful trial completion. management's view that the business development effort has been well received by the initial farming operations the Company has been targeting and working with for trialing. Additionally, the Company is working through a strategy of targeting large food supply businesses where the Company believes significant purchasing power of agricultural products exists. The Company anticipates revenue from Agrarius sales activity in the 2023 calendar year based on the timing and logic of the crop trialing cycle, whereby farming organizations would personally validate the anticipated positive impact on their crop yields and/or fertilizer reduction after it has been trialed on their farm. Revenue and the related ramp-up of sales growth in many cases is anticipated to take one full crop cycle.

MVMD has hired key team members in South America to support its agriculture line of business objectives in Mexico, Central America and South America (LATAM), including in the areas of finance, operations, business development, and agronomy.

The Company plans to operate its LATAM sales operations primarily through a wholly owned subsidiary in Panama, which was formed along with three (3) additional wholly owned subsidiaries to facilitate the registration of the Agrarius product in certain territories throughout LATAM and to facilitate sales. The Company believes that Panama operations will support product shipping and logistics based on its geographical location, and provides certain tax advantages related to operating in a duty free zone, in its planned operating model. The initial business development and Agrarius product registration processes are focused on Colombia, Brazil, Uruguay, Panama and Mexico. The registration process and timeline vary throughout the territories and it is anticipated that registration timing will be achieved at various times throughout the LATAM territories over the coming months.

## HUSBANDRY ANIMALS / AQUATIC SPECIES

The Company has applied its Quicksol™ solubilization technology to the drug Ivermectin to create its Soluvec™ 1% product formulation, which was designed to provide a safer and more effective

solution that can be administered broadly across the husbandry animal and aquatic species marketplace.

The Company's overall husbandry and aquatic species strategy was to develop its scientific assets with a view to licensing to third parties. As previously disclosed on May 8, 2023, the Company entered into a license agreement with a privately held Ontario corporation (the "Licensee") for its Soluvec™1% animal husbandry applications for the territory of the People's Republic of Bangladesh. The Company has worked closely with the Licensee and its partners inside Bangladesh on the previously disclosed animal pharmacokinetic trials that were conducted under the supervision of The People's Republic of Bangladesh's Ministry of Fisheries & Livestock for the injectable Soluvec™ 1% solubilized Ivermectin technology, and Soluvec™ 1% coated standard fish feed across farmed fish species. The agreement provides the Licensee with the exclusive rights, within Bangladesh, to work through its partners inside the territory to coordinate Soluvec™ 1% manufacturing and distribution of related Soluvec™ 1% products, both in injectable and food coating applications. In consideration, the Licensee will pay to the Company a royalty percentage against net sales in the region.

Related to the license agreement and necessary government approvals, the pharmacokinetic trials conducted inside Bangladesh across husbandry and aquatic species categories have been completed by a third-party Contract Research Organization (CRO) and MVMD believes the results of these trials will positively support the value proposition necessary to secure requisite government approvals to commercialize inside Bangladesh in the 2023 calendar year. The pharmacokinetic trials for Soluvec™ 1% involved administering the drug through intramuscular (IM) and subcutaneous (SC) injection, as well as orally with commercially available branded Ivermectin. The trials also included comparative studies of growth performance, toxicity, and blood hematological observation for Soluvec 1% coated standard fish feed among various farmed fish species. The trials demonstrated that Soluvec™ 1% has a solubility approximately 2,500 times greater than free Ivermectin. Additionally, IM and SC Soluvec™ 1% administration increased Ivermectin drug exposure, peak levels, and extended the duration of Ivermectin exposure in husbandry animals when compared to commercially available Ivermectin in SC, IM, and oral forms. Farmed fish trials were conducted on Indian Catfish, Pangas, Common Carp, Tilapia, and Rui (Ruho) fish species. One group received Soluvec™ 1% coated standard fish feed, while the control group was given non-Soluvec™ 1% standard fish feed. The results showed an increase in average daily growth and a reduction in mortality, leading to an overall net average increase in net production of 145%. The feed conversion ratio also improved by an average of 16% for all fish species treated with Soluvec™ 1% coated fish feed compared to those receiving non-Soluvec™ 1% coated fish feed, indicating that the former group required less feed to produce higher units of biomass.

The Company has made a significant time and financial investment over the past approximately 18 months in an effort to optimize a final formulation approach to ensure its Soluvec<sup>™</sup> 1% product has the desired stability at both room temperature and standard refrigeration temperature. The Company believes that product stability is a critical element for broader commercialization applications to provide manufacturing flexibility, reduce costs, simplify transportation and storage, and ensure overall product efficacy at the point of administration. The Company has successfully worked with its consultants and third-party Contract Manufacturing Operator ("CMO") in the United States to create its final formulation for its Soluvec<sup>™</sup> 1% that has achieved the nine-month stability target of greater than 95% IVM purity. This formula was the basis of the licensee agreement and is the formula that will be manufactured in Bangladesh initially.

Management believes that commercialization of Soluvec™ 1% inside Bangladesh through the license arrangement will commence in the 2023 calendar year, subject to all agreements being

finalized as between the licensee and its partners inside Bangladesh for manufacturing and distribution, and including obtaining final government approvals.

The Company continues to evaluate the opportunity to license its Soluvec<sup>™</sup> 1% product in territories outside of Bangladesh. To safeguard its intellectual property and the Company's licensing royalty model, the Company has initially filed for Quicksol<sup>™</sup> patent protection in key markets it has deemed strategically important at this time for expansion outside of Bangladesh. To date, MVMD has filed for Soluvec<sup>™</sup> 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.

The Company announced on August 9, 2023 the peer-reviewed publication of its Soluvec<sup>™</sup> study data in the journal, *Therapeutic Delivery*. The published study highlights the benefits of the Company's patented Soluvec<sup>™</sup> formulation, a novel, solvent-free aqueous Ivermectin invention. The study confirmed that parenteral administration of Soluvec<sup>™</sup> led to an Ivermectin drug exposure approximately seven times higher than traditional oral drug dosing, with greater bioavailability, offering potential for enhanced therapeutic effectiveness.

## 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<sup>™</sup> oral formulation and delivery technologies,
- patented Quicksol<sup>™</sup> 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 <a href="www.MVMD.com">www.MVMD.com</a>. 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. Forwardlooking 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: the Company's three (3) lines of business to achieve commercialization; the strategy of engaging one Lead Manufacturer and the impact thereof; the anticipated increase in business development efforts to secure additional nutraceutical licensing partnerships; timing for the full production readiness for MVMD"s proprietary brand products; the timing of commercial manufacturing for Circadian, including the mushroom-infused products under the Eons brand; the potential multi-million dollar field coverage pipeline from trialing Agrarius customers; the timing of anticipated revenues and related ramp-up of sales growth; plans and structure related to LATAM operations, and the impacts thereof, including tax benefits; the registration process, the territories, and the timing thereof; the timing of commercialization of Soluvec™ 1% inside Bangladesh and the factors related thereto; and future opportunities for Soluvec™ 1% outside of 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.