

# NEWS RELEASE

FOR IMMEDIATE RELEASE

Wednesday, July 7, 2021



## MOUNTAIN VALLEY MD ANNOUNCES RESULTS FROM COLD CHAIN STORAGE EVALUATION OF NOVEL QUICKSOME™ TECHNOLOGY

**TORONTO, ON – July 7, 2021 - Mountain Valley MD Holdings Inc.** (the “Company” or “MVMD”) (CSE: MVMD) (FRA:20MP) (OTCQB: MV MDF) is pleased to announce the results of its recent controlled cold chain evaluation of the Company’s Quicksome™ desiccated liposome technology.

The controlled cold chain evaluation was the Company’s first attempt at assessing the ability of a thin Quicksome™ desiccated liposome layer of Trivalent Inactivated Poliovirus Vaccine (tIPV), using a method of preservation in a vial for five days of exposure at 40 degrees Celsius and then reconstituted for injection at the point of administration.

### **CONTROLLED COLD CHAIN TESTING RESULTS:**

The trivalent IPV stability evaluation was conducted to assess the preservation application of MVMD’s Quicksome™ technology after 5 days exposure to 40 degrees Celsius. Trivalent IPV is composed of three serotypes of inactivated polioviruses.

**IPV serotype two** – achieved 100% preservation and stability.

**IPV serotypes one and three** achieved 50% preservation and stability.

The 100% preservation and stability of **IPV serotype two** exceeds the World Health Organization’s (WHO) guideline temperature requirements for all three defined vaccine management categories\* including traditional cold chain between +2°C and +8°C, Extended Controlled Temperature Conditions (ECTC) above +8°C for a specified number of days to support vaccine distribution, and Controlled Temperature Chain (CTC) where the vaccine must be able to tolerate ambient temperatures of at least +40°C for a minimum of 3 days.

**IPV serotypes one and three** will be the focus of the next phase of evaluation the Company will conduct by focusing on lowering residual moisture content, achieving more robust liposomal protection, and faster drying of the mixture within the vial. The Company’s objective is to achieve full CTC compliance at 40°C for tIPV polio vaccines in a vial format that can be reconstituted at the point of administration for injection and is immediately commencing this work.

As announced in the Company’s news release dated June 24, 2021, MVMD has formally entered into a two-year collaborative research agreement with the Food and Drug

Administration (“FDA”). The collaborative research agreement will support the continuation of research, development, and evaluation of the Company’s Quicksome™ controlled cold chain technology.

“The validation of Mountain Valley MD’s Quicksome™ technology supports our exploration around the ability to transport and store the polio vaccine outside of the traditional cold chain system,” stated Mike Farber, Director of Life Sciences for Mountain Valley MD. “While we will immediately pursue our goal of 100% preservation of trivalent IPV, our initial preservation achievement of IPV serotype two we believe is a proxy that we can apply to other vaccines in the future.”

Cold chain is a temperature-controlled supply chain that prescribes necessary conditions during the transport, storage, and handling of vaccines to preserve a temperature range between +2°C and +8°C from the time the vaccine is produced until it is administered. Current estimates place cold chain biopharma logistics spending for 2020 at USD \$17.2 billion annually\*\*, with costs due to failures in temperature-controlled logistics estimated at approximately USD \$35 billion per year, and in most cases representing over half of a vaccine’s cost.\*\*\* The WHO estimates that more than 50% of vaccines are wasted globally every year due to temperature control, logistics and shipment-related issues.\*\*\*\*

“MVMD’s Quicksome™ technology has taken an important step forward in our pursuit to change the global vaccination landscape and provide more certainty of vaccine distribution to the most disadvantaged communities in the world,” stated Dennis Hancock, President and CEO of Mountain Valley MD. “With the planned work in the coming months on our tIPV project, we feel our Quicksome™ technology is progressing positively towards our vision of reducing the complexity, wastage and significant costs associated with cold chain distribution.”

#### *Reference Sources:*

\* WHO - The controlled temperature chain

[https://www.who.int/immunization/programmes\\_systems/supply\\_chain/resources/CTC\\_FAQ\\_English\\_November\\_2016.pdf](https://www.who.int/immunization/programmes_systems/supply_chain/resources/CTC_FAQ_English_November_2016.pdf)

\*\* Global biopharma cold chain logistics spending

<https://www.statista.com/statistics/725474/global-biopharma-cold-chain-logistics-spending/>

\*\*\* The importance of vaccine cold chain logistics

<https://www.q1scientific.com/the-importance-of-vaccine-cold-chain-logistics/>

\*\*\*\* Over half of vaccines are wasted globally

<https://www.weforum.org/agenda/2018/07/the-biggest-hurdle-to-universal-vaccination-might-just-be-a-fridge>

## **ABOUT MOUNTAIN VALLEY MD HOLDINGS INC**

Mountain Valley MD is building a world-class biotech and life sciences company organization centered around the implementation of its patented Quicksome™ oral drug formulation and delivery technologies and its Quicksol™ solubilization technology for macrocyclic lactones, to innovate industry leading products that are sought out globally.

MVMD's proposition for delivering Quicksome™ formulations that have rapid onset, high bioavailability, low variability and precision dosing is core to the Company's success across key health and wellness categories. Consistent with its vision towards "Helping People Live Their Best Life", MVMD applies its Quicksome™ and Quicksol™ technologies to its ground-breaking work for advanced delivery of vaccines and pharmaceutical drugs as well as the development of products for pain management, weight loss, energy, focus, sleep, anxiety, and more.

The Company's patented Quicksome™ desiccation technology utilizes advanced liposomes and other stabilizing molecules to encapsulate and formulate active ingredients into highly efficient product formats that are consumed orally. The result is a new generation of product formulations that are capable of delivering vaccines, drugs and nutraceuticals into the body faster, with greater impact, efficiency and accuracy.

The Company's patented Quicksol™ solubilization technology covers all highly solubilized macrocyclic lactones (including the drugs Ivermectin and Selamectin). MVMD's solubility technology applied to the Ivermectin drug is the only form in the world that only uses excipients that are currently approved by the US Food and Drug Administration (FDA), making it a leading candidate for human injection and sublingual applications as well as significantly broader husbandry and companion animal treatments based on its low viscosity.

For more Company information and contact details, visit [www.mountainvalleymd.com](http://www.mountainvalleymd.com).

SOURCE: Mountain Valley MD Holdings Inc.

## **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 with respect to the next phase(s) of or following the cold chain evaluation of the Company's Quicksome™ desiccated liposome technology.*

*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.*

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