



August 7, 2023

FOR IMMEDIATE RELEASE

**AGS Therapeutics Strengthens its Patent Portfolio  
on Microalgae Extracellular Vesicles (MEV)  
with an International Patent Application  
on Biodistribution and Uses of MEVs  
as Universal Delivery System to Reach Difficult-to-Access Tissues**

*MEVs can be seen as a universal delivery system for innovative therapeutics, and as a non-viral gene therapy vector. MEVs can be exo-loaded with all kinds of therapeutic modalities for delivery through multiple modes of administration. They overcome stringent biological barriers and reach difficult to access tissues, providing the potential to overcome challenges faced by other delivery systems.*

PARIS, FRANCE, August 7, 2023 – AGS Therapeutics, a preclinical-stage biotech company pioneering microalgae extracellular vesicles (MEV) as a new delivery system for innovative therapeutics, announced the recent publication of its [PCT Application No. PCT/EP2023/051650 - Publication - WO2023144127](#), entitled *Extracellular Vesicles from Microalgae, their Biodistribution upon Administration, and Uses*.

“MEVs can be efficiently exo-loaded with either mRNA, siRNA, plasmid-DNA, ASO, peptides, or proteins, and can be used to deliver their payloads to various specific tissues and organs, which have been so far either difficult or impossible to access by current alternative systems like mammalian EVs, LNPs, or viral gene therapy vectors” said AGS Chief Operating Officer Lila Drittanti.

The published patent application highlights the rare capacity of MEVs to overcome biological barriers, and to deliver biologically active payloads to so far difficult-to-access tissues.

- When orally administered, MEVs pass through the stringent conditions of the stomach and, after reaching the intestine, they deliver their payload in the enterocytes of the intestinal epithelium. In a world’s first, we have shown that mRNA can be delivered and expressed in the intestine upon oral administration. Furthermore, active enzymes loaded in MEVs keep their biological activity after oral administration and delivery.

- When administered intratracheally, MEVs can be used to deliver their biologically active payload, which is expressed in the lungs as demonstrated for mRNA and proteins.
- When administered topically on the eye surface, by drop instillation, MEVs deliver their payload in the choroid-retina.
- When administered intranasally, MEVs elicit nose-to-brain delivery, reaching the brain and travelling throughout the olfactory network into most of the brain regions relevant to diseases.

These findings highlight the breakthrough of MEVs as universal delivery system.

“None of the alternative delivery systems, currently available or in development, has demonstrated such versatility in the biodistribution, routes of administration, nor the capacity to efficiently overcome so many biological barriers”, said AGS Chief Corporate Development Marie-Hélène Leopold. “MEVs have naturally evolved over 2-3 billion years and have thus naturally become a highly sophisticated vector that can be exploited for the delivery of therapeutics”.

AGS’ portfolio of Intellectual Property is managed by Stephanie Seidman, at Dentons’ LLC, San Diego ([www.dentons.com/en/stephanie-seidman](http://www.dentons.com/en/stephanie-seidman) ).

## About AGS

AGS Therapeutics, based in Paris, France, is a biotech company pioneering the development of biomedicines based on extracellular vesicles from microalgae (MEV). MEVs have been shown to be a safe, targeted and highly versatile delivery system and non-viral gene therapy vector, for innovative biologics, such as mRNA, siRNA, DNA, plasmids, and proteins for a broad range of human diseases. AGS-M, the company’s subsidiary and a contract development and manufacturing organisation, will produce the MEVs needed to support preclinical and clinical development of product pipelines from AGS and from pharmaceutical companies partnering with AGS. AGS’ MEVs are derived from *Chlorella*, a two-billion-year-old single-cell algae used for decades as a food supplement. *Chlorella* is FDA-labelled as *GRAS* for consumption as a food supplement. AGS’ MEVs are easy to manufacture in large quantities with processes that are both eco-friendly and easily scalable. Through strategic partnerships and a commitment to scientific excellence, the company aims to challenge the delivery landscape and improve the lives of patients across the globe. For more information visit [www.ags-tx.com](http://www.ags-tx.com) and [www.ags-m.com](http://www.ags-m.com).

## Forward looking statement

This announcement may include predictions, estimates or other information that might be considered forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could cause actual results to differ materially. You are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this communication.

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