# CMP Scientific’s Novel Mass Spectrometry Ion Source Featured in Peer-Reviewed Study Advancing Gene Therapy Analytics

*CMP’s Novel EMASS-II CE-MS Technology Enables Characterization of AAV Key Quality Attributes: Capsid Aggregation, Oligomerization, and Genome Packaging.*

CMP Scientific's EMASS-II CE-MS ion source

BROOKLYN, NY, UNITED STATES, July 9, 2025 /EINPresswire.com/ -- CMP Scientific, a commercial-stage life sciences company developing next-generation Capillary Electrophoresis-Mass Spectrometry (CE-MS) technologies, today announced the publication of a peer-reviewed article titled “Characterizing the Content and Structure of AAV Capsids by Size Exclusion Chromatography and Orbitrap-Based Charge Detection Mass Spectrometry” in the prestigious Journal of the American Society for Mass Spectrometry (JASMS).

The study, led by Dr. Fabio P. Gomes from Virginia Commonwealth University (VCU), in collaboration with Agilent Technologies and CMP Scientific, marks a significant advancement in the analytical characterization of recombinant adeno-associated virus (rAAV) vectors - a critical component in the development of gene therapies. The research introduces a powerful and precise analytical workflow for assessing key quality attributes of AAV vectors, including capsid aggregation, oligomerization, and genome packaging—some of the most challenging technical hurdles in gene therapy manufacturing and quality control.

CMP Scientific’s novel EMASS-II CE-MS ion source and capillary electrophoresis technology played an essential role in enabling automated, robust, sensitive, and reproducible charge detection mass spectrometry (CD-MS) analysis of AAV capsids. The EMASS-II’s unique design ensures exceptional spray stability through stable and controlled flow rates, which is essential for

accurate mass spectrometric measurements of complex biomolecular assemblies.

“Our technology enables robust structural and quality assessments of AAV-based gene therapy products, which is critical for optimizing manufacturing processes and ensuring the safety and efficacy of these transformative therapies,” said Dr. James Xia, CEO of CMP Scientific. “This publication underscores CMP’s commitment to scientific innovation and highlights the success of our collaborative partnerships with leading academic researchers and industry partners.”

The publication reflects CMP Scientific’s ongoing dedication to advancing CE-MS solutions and validates the company’s unique ion source technology as a critical enabler in the rapidly growing field of gene therapy analytics. CMP Scientific extends its sincere appreciation to the research teams at VCU and Agilent Technologies for their collaboration and contributions to this important achievement.

About CMP Scientific

CMP Scientific is a technology-driven life sciences company specializing in capillary electrophoresis coupled with electrospray ionization mass spectrometry (CE-MS), a state-of-the-art analytical platform known for its high-resolution separation and ultra-sensitive detection capabilities. CMP Scientific is dedicated to advancing CE-MS instrumentation, consumables, and services, empowering researchers and laboratories to tackle complex analytical challenges in biopharmaceutical development, proteomics, and gene therapy with precision and confidence.

For more information, please visit www.cmpscientific.com.

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