Expanded Xheme, RENOLIT relationship moves “active” XMA-polymer composite film tech one step closer to commercialization

The agreement will allow for technology validation and eventual commercialization of a novel film that eliminates oxidative stress for use in bioprocessing.

NEWTON, MASSACHUSETTS, UNITED STATES, December 19, 2023 /EINPresswire.com/ -- Xheme, Inc. and RENOLIT Healthcare today announced the launch of an expanded relationship for the technology validation and eventual commercialization of a novel, medical-grade polymeric film that eliminates oxidative stress for use in bioprocessing and other applications. The new proprietary composite film, which combines the oxidative stress-fighting activity of Xheme’s Multifunctional Additives (XMAs) with a polymer, could eventually provide a more effective alternative to “inactive” polymeric films currently used in bioprocessing bags, while potentially increasing the cell density and yield of cell therapeutics produced. The expanded relationship builds upon the companies’ first research development agreement which was signed in 2020 to begin development on next-generation, nontoxic blood storage bags.

With a current $50+ billion market size, the bioprocessing industry plays a crucial role in delivering life-saving biopharmaceuticals and biotherapeutics to patients worldwide. However, the manufacturing of these therapies often faces challenges, leading to reduced yields and increased costs. In testing conducted by the Institute for Applied Life Sciences’ Cell Culture Core Facility at University of Massachusetts Amherst and O2M Technologies, proprietary XMAs demonstrated superior performance compared to current bioprocessing antioxidants—improving bioprocessing cell density/viability by over 50% in some cases.

“We are very happy to be expanding our collaboration with RENOLIT Healthcare and further benefit from their expertise as the world’s leader in medical-grade polymers,” said Kumar Challa, PhD, CEO, President, and Co-founder of Xheme. “The expansion of this relationship, which builds on the foundation of Xheme’s intellectual property portfolio of seven pending patent applications, is an important development that allows for us to test the proprietary XMA-polymer composite films at industrial scale and brings us one step closer to commercialization.”

“We are excited to be moving into the next phase of our relationship with Xheme,” said Paul von Kirchbach, the Director of Global Business Development for RENOLIT Healthcare. “As the market leader in medical-grade high-value polymer products, Renolit is always looking for ways to take healthcare to the next level. The novel XMA polymer composite films do just that by potentially

offering an innovative film that increases the profitability of our customers by increasing productivity and yield. Of course, this film is aiming to fulfill the latest sustainable developments in a healthcare environment. Reduced overall production cost means greater access to life-saving therapeutics for patients around the world."

As part of the expanded relationship, RENOLIT has been using a new commercial extruder and compounder, and has made an undisclosed financial commitment to Xheme to further scale-up and validate Xheme's technology.

"We are very fortunate to have a partner like RENOLIT Healthcare and champions such as Paul von Kirchbach and Thomas Sampers, General Manager Healthcare and Executive Board Member for RENOLIT SE, driving this innovative work," said Julia Rashba-Step, PhD, the Vice President of Product Development & Partnerships at Xheme. "This growing collaboration is a testament to the progress we have achieved so far and underscores the dedication of both companies to developing next-generation plastics for use in biotechnology applications."

About Xheme, Inc.

Xheme, Inc. is a specialty materials company based in Newton, MA. Xheme is working to revolutionize the world of plastics and coatings applications by eliminating the need for single-use/single-function additives by using one programmable additive that provides the same, or better, performance. From bioprocessing bags to paints, the non-toxic Xheme Multifunctional Additive (XMA) provides a combination of four protections—from oxidation, UV, corrosion, and microbial contamination—and is safe for both people and the planet. Xheme has a robust intellectual property portfolio and is transforming discovery of next generation smart additives through collaborations with global academic and industry leaders. For more information, visit xheme.bio and follow us on LinkedIn.

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