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TRANSDERMAL CURCUMIN YIELDS PROMISING DATA FOR SICKLE CELL SUFFERERS PRESENTED AT ANNUAL AMERICAN SOCIETY OF HEMATOLOGY CONFERENCE IN SAN DIEGO, CALIFORNIA

Preclinical results show steady decline in pain, increase in red blood cell stability and reduction in inflammatory markers

SAN DIEGO, CA, December 10, 2023 /PRNewswire/ -- Vascarta Inc. ("Vascarta") announced new research findings presented today at the American Society of Hematology meeting in San Diego show that a novel transdermal preparation of curcumin from Vascarta reduced pain in humanized mice which suffer with the human form of sickle cell disease. As described in a poster*, several features of human sickle cell pain were measured in these humanized sickle cell mice including sensitivity to mechanical stimulus and cold. In cold conditions, the mice experienced significantly less pain after only hours of treatment and this effect continued during the full 21-day testing period. In room temperature conditions, the mice experienced less pain starting 14 days after first treatment.

Mice treated with the transdermal curcumin also showed strong evidence of enhanced red blood cell stability including less hemolysis and improved hematocrit, redox balance and energy production. Additionally, both the liver and spleen showed evidence of improved health. Anti-inflammatory activity was demonstrated by a reduction of multiple markers of inflammation including deactivation of activated mast cells, which are significant contributors to chronic pain.

Unlike curcumin taken orally, Vascarta's transdermal curcumin** is highly bioavailable; thus, therapeutic efficacy was achieved by applying only one drop to the abdomen every other day.

"This transdermal curcumin formulation represents a potentially new safe and easy-to-deploy approach to sickle cell disease that could be used either for prevention or for treatment not only for chronic pain, but also for many of the other clinical consequences stemming from red cell instability," said Professor Kalpna Gupta (University of California – Irvine), principal investigator.

Professor Joel Friedman (Albert Einstein College of Medicine and inventor of Vascarta's patented transdermal drug delivery technology) stated that "the positive sickle cell results are consistent with multiple other preclinical studies that have shown therapeutic benefits of transdermal curcumin for pain, inflammation, cytokine storm, endothelial integrity, hypertension, aging and more. We look forward to forming alliances with strategic partners to enable this novel technology to benefit patients suffering from any of several inflammatory diseases. "

*"Mechanism-based Targeting of Sickle Cell Pathobiology and Pain with Novel Transdermal Curcumin"

** Formulated with Curcugen® (Dolcas-Biotech, LLC).

About Sickle Cell Disease

Sickle cell disease is the most common inherited disease that primarily affects African Americans and Hispanics in the United States, with ~50% of affected individuals suffering chronic pain.

About Vascarta

Vascarta is a startup pharmaceutical company exploring efficient transdermal delivery of pharmaceuticals to address inflammatory and blood diseases. More information regarding Vascarta's existing research or future collaborations can be found at www.Vascarta.com or by email to Vascarta's CEO, Dr. Richard Prince, at rprince@vascarta.com.

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