CalciMedica Announces Publication of Preclinical Data Demonstrating the Pathological Role of Microglial CRAC Channels in Ischemic Stroke

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- *First report of pathological role for microglial calcium activity in cortical spreading depolarization (CSD), a complication of stroke. CRAC channel inhibitors represent an important future potential therapeutic option for patients with ischemic stroke.*

LA JOLLA, Calif., November 13, 2020 – CalciMedica Inc. ("CalciMedica" or the "Company), a clinical-stage biotechnology company targeting calcium release-activated calcium (CRAC) channels for the treatment of severe acute and chronic inflammatory diseases, today announced the publication of preclinical data demonstrating a pathological role for CRAC channel-mediated microglial calcium activity in ischemic brain injury in the peer-reviewed journal *Stroke*. The research presented in the manuscript titled "*Microglial Calcium Waves During the Hyperacute Phase of Ischemic Stroke"* was conducted by lead authors Lei Liu and Kathryn Kearns in the laboratory of Petr Tvrdik, Ph.D. at the University of Virginia School of Medicine and can be accessed here: https://www.ahajournals.org/doi/abs/10.1161/STROKEAHA.120.032766?af=R.

"This study highlights a key role for microglial calcium activity in the pathology of a particular stroke complication, cortical spreading depolarization, in a mouse model of ischemic injury," said Kenneth Stauderman, Ph.D., co-founder and chief scientific officer of CalciMedica. "This calcium activity is due, at least in part, to CRAC channel activation. We are encouraged by these findings because they further support our pursuit of CRAC channel inhibitors as a potential therapy for a multitude of acute and chronic inflammatory conditions. This finding builds on our earlier work on the activation of microglial cells in stroke, and opens up possibilities to evaluate this aspect of stroke pathology as a step towards new medical interventions."

The published results show for the first time that microglial calcium activity is a key component of abnormal neural activity that occurs during ischemic injury called cortical spreading depolarization (CSD). CRAC channel inhibition in a mouse model of ischemic injury demonstrated that the activity of intracellular calcium in microglia is at least in part due to calcium influx through CRAC channels. These results suggest that pharmacological blockade of microglial calcium overload during the hyperacute phase of ischemic stroke may reduce microglial activation and improve stroke outcomes.

Rachel Leheny, Ph.D., chief executive officer and chairman of CalciMedica, added, "This study demonstrates the broad potential of our CRAC channel inhibitors. We are currently advancing clinical trials evaluating our lead candidate, Auxora™, in several indications including severe COVID-19 pneumonia and acute pancreatitis with results anticipated next year."

About CalciMedica, Inc.
CalciMedica is a privately held, clinical stage biotechnology company with a platform focused on CRAC channel drug discovery and development for the treatment of severe acute and chronic inflammatory diseases including acute pancreatitis, chronic pancreatitis, COVID-19 pneumonia and acute respiratory distress syndrome (ARDS). The company has a portfolio of potent and selective small molecule CRAC channel inhibitors, including its lead product Auxora, that prevent CRAC channel overactivation that can cause organ injury including endothelial apoptosis, pancreatic necrosis, tissue fibrosis and diffuse alveolar damage in numerous settings. Data from both a Phase 2a acute pancreatitis trial and a Phase 2 COVID-19 pneumonia trial show that Auxora prevents organ tissue damage and allows for organ function. CalciMedica is headquartered in San Diego, CA. For more information, please visit the company website at www.calcimedica.com.

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