Chemomab Presentation at ACR Convergence 2023 Provides Further Support for Key Role of Its CCL24 Target in the Pathogenesis of Systemic Sclerosis

--Systemic Sclerosis (SSc) Patient Data Shows High Serum CCL24 Levels Associated with More Severe Manifestations of Disease, Including Pulmonary Arterial Hypertension --

-- Study Reveals that CCL24 Activates Endothelial Cells in Specific Ways that Result in SSc-Associated Fibrosis --

TEL AVIV, Israel, Nov. 16, 2023 /PRNewswire/ -- Chemomab Therapeutics Ltd. (Nasdaq: CMMB) (Chemomab), a clinical stage biotechnology company focused on the discovery and development of innovative therapeutics for fibro-inflammatory diseases with high unmet need, today reported on its poster presentation at the American College of Rheumatology (ACR) Convergence 2023 conference. The study, which was conducted by Chemomab researchers working in collaboration with academic scientists, analyzed serum samples and clinical data from patients with systemic sclerosis (SSc) to assess the effect of the soluble protein CCL24 on the pathogenesis of SSc and its association with key aspects of SSc pathology. Chemomab's first-in-class monoclonal antibody, CM-101, is designed to neutralize CCL24 and normalize CCL24-driven fibro-inflammatory disease processes. CM-101 has been studied extensively in preclinical and patient models of SSc. Chemomab has an open IND in the U.S. for a Phase 2 trial of CM-101 in systemic sclerosis patients.

Systemic sclerosis is an autoimmune disease characterized by vascular injury and extensive tissue fibrosis of the skin and internal organs. It is the most lethal of the systemic rheumatological disorders. In this study, researchers analyzed whether CCL24 levels in SSc patients were associated with differences in functional measures such as the 6-minute walk test, as well as clinical manifestations of the disease such as the development of pulmonary arterial hypertension (PAH), a serious cardiovascular complication of SSc. They found that the average level of CCL24 in SSc patients with PAH was significantly higher compared to the level in SSc patients without PAH and that SSc patients with higher CCL24 levels had significantly lower scores on the 6-minute walk exercise capacity test than those with lower CCL24 levels.

"These new data add to the extensive body of evidence showing that CCL24 is a major driver of the fibrotic and inflammatory processes underlying systemic sclerosis and other fibro-inflammatory diseases," said Adi Mor, PhD, co-founder, Chief Executive Officer and Chief Scientific Officer of Chemomab. "The studies reveal for the first time that CCL24 is able to induce a unique activation of endothelial cells that transforms them into mesenchymal cells. Growing evidence suggests that this endothelial-to-mesenchymal transition (EndMT) in adults is associated with many vascular, fibrotic and other diseases, including the fibrotic damage seen in SSc. It is noteworthy that when CM-101 was added to these models, the negative effects of CCL24 were substantially mitigated. We believe that CM-101 may have disease-modifying potential in this poorly treated condition and look forward to opening patient enrollment in our Phase 2 SSc trial when resources permit."

Endothelial cells are a major target of autoimmune attack in SSc. Studies have demonstrated that endothelial cells are capable of undergoing EndMT, a type of differentiation into other cell types such as fibroblasts. EndMT is involved in the pathogenesis of malignant, vascular, inflammatory and fibrotic disorders in adults. In this study researchers examined how CCL24 and its receptor, CCR3, might impact EndMT. Using cell-based assays, the researchers showed that CCL24, alongside factors present in the SSc microenvironment, enhances the EndMT process. This enhancement is characterized by an increase in mesenchymal markers, a decrease in endothelial markers, increased cell migration and an upregulation of CCR3 expression in endothelial cells. Notably, in cell-based assays, the addition of Chemomab's CCL24-neutralizing antibody CM-101 substantially mitigated these EndMT-related processes.

A copy of Chemomab's poster presentation from ACR Convergence 2023 is available at www.chemomab.com/r-d/.

1-*The Involvement of CCR3-CCL24 Axis in Endothelial to Mesenchymal Transition Process and Pulmonary Arterial Hypertension in Systemic Sclerosis Patients,* It Amoyal, T Hornik-Lurie, T Zitman-Gal, H Levy, I Vaknin L Drucker, I Heusler, Y Levy, S Tartakover Matalo, Systemic Sclerosis & Related Disorders – Clinical Poster III: Translational Science

Forward Looking Statements
This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act. These forward-looking statements include, among other things, statements regarding the clinical development pathway for CM-101; the length, duration and impact of the war in Israel on Chemomab's business and operations; the future operations of Chemomab and its ability to successfully initiate and complete clinical trials and achieve regulatory milestones; the nature, strategy and focus of Chemomab; the development and commercial potential and potential benefits of any product candidates of Chemomab; and that the product candidates have the potential to address high unmet needs of patients with serious fibrosis-related diseases and conditions. Any statements contained in this communication that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements are based upon Chemomab's current expectations. Forward-looking statements involve risks and uncertainties. Because such statements deal with future events and are based on Chemomab's current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Chemomab could differ materially from those described in or implied by the statements in this presentation, including those found under the caption "Risk Factors" and elsewhere in Chemomab's filings and reports with the SEC. Chemomab expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Chemomab's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based, except as required by law.

About Chemomab Therapeutics Ltd.
Chemomab is a clinical stage biotechnology company developing innovative therapeutics for fibro-inflammatory diseases with high unmet need. Based on the unique and pivotal role of CCL24 in promoting fibrosis and inflammation, Chemomab developed CM-101, a monoclonal antibody designed to neutralize CCL24 activity. In preclinical and clinical studies, CM-101 appears safe, with the potential to treat multiple severe and life-threatening fibro-inflammatory diseases. Chemomab has reported encouraging results from three clinical trials of CM-101 in patients, including a Phase 1b trial in NAFLD patients, a Phase 2a liver fibrosis trial in NASH patients and an investigator-initiated study in patients with severe lung injury. The CM-101 program for the treatment of systemic sclerosis is Phase 2-ready and a Phase 2 trial in primary sclerosing cholangitis patients is ongoing, with topline data expected in the second half of 2024. For more information about Chemomab, visit chemomab.com.

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