

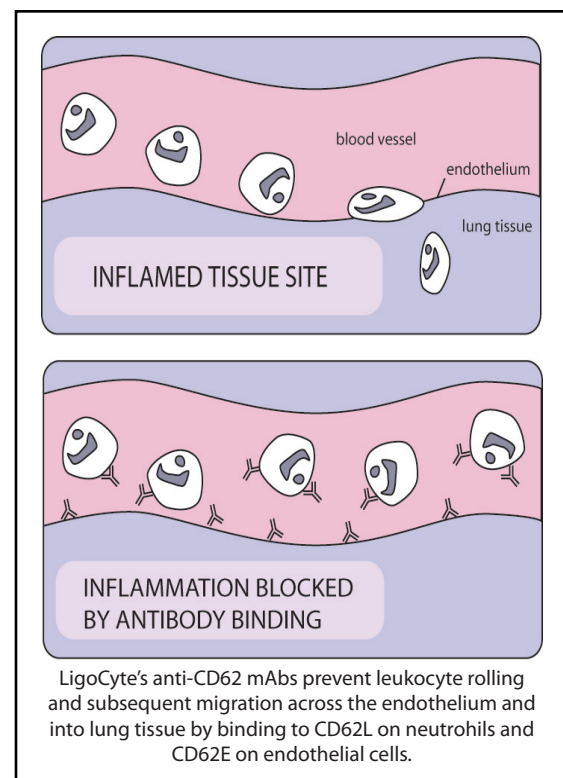
CD62 ANTI-INFLAMMATORY ANTIBODY PROGRAM

THERAPEUTIC CANDIDATE:	mAb to CD62
CLASS:	humanized IgG1 MAb
ACTIVITY:	anti-E- & L-selectin
CLINICAL INDICATIONS:	COPD, AECOPD
STATUS:	lead selection

LigoCyte is developing a humanized monoclonal antibody to CD62 to treat patients with respiratory inflammation, in particular chronic obstructive pulmonary disease (COPD) and acute exacerbations of chronic obstructive pulmonary disease (AECOPD). LigoCyte's mAb candidates are powerful E- and L-selectin inhibitors that have been shown in animal studies to effectively reduce neutrophil and monocyte recruitment to the lung, thereby disrupting the inflammation cascade central to disease pathology.

TARGET

The leukocyte is a key effector cell of the immune host defense system and leukocyte extravasation is an important self-defense mechanism at a site of inflammation. However, leukocyte extravasation is also responsible for the pathogenesis of many inflammatory disorders, including chronic lung diseases. During an inflammatory response leukocyte and endothelial receptors are up-regulated, promoting leukocyte adhesion to the endothelium by attachment to specific ligands. One important family of adhesion molecules, the selectins, mediates the receptor-dependent tethering and rolling interaction of leukocytes along the endothelium. Blocking the selectins inhibits leukocyte interactions with the vascular endothelium, subsequently preventing downstream events including tight integrin adhesion and extravasation of leukocytes into tissue. This, in turn, reduces the release of enzymes and reactive oxygen species originating from recruited leukocytes during inflammatory processes. Limiting the recruitment at this critical point breaks the complex feedback cycle that promotes further cytokine release and ongoing recruitment of inflammatory cells.



INDICATION: COPD

COPD is a chronic respiratory disease characterized by an excessive and persistent infiltration of inflammatory cells into lung tissue. Inhibiting the inflammatory response holds the potential to modify the disease process and provide a much needed therapeutic option to the 15 million COPD sufferers in the United States alone.

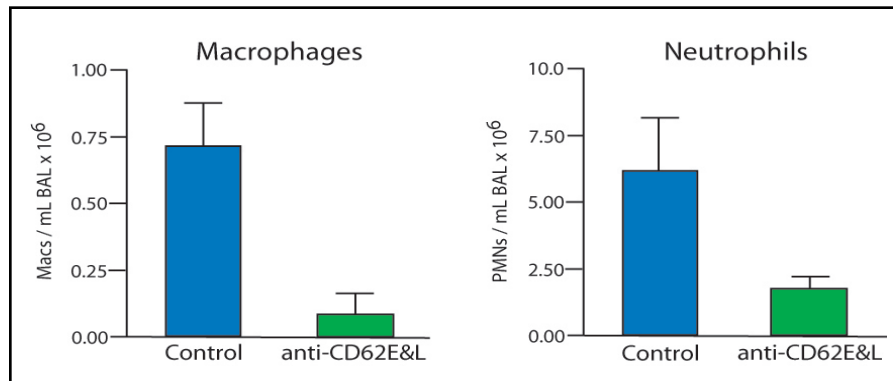
The primary component of airflow obstruction in COPD is an underlying chronic and persistent neutrophilic and monocytic migration to the lung that results in the degradation of connective tissue and the secretion of vast amounts of mucus. The mucus and lung remodeling impair a patient's ability to breath and also result in the trapping of bacteria and viruses that result in chronic infections. By reducing neutrophil extravasation into the lung, an anti-CD62 (E+L) mAb can address both the underlying inflammatory condition and acute infectious exacerbations that result in hospitalizations.

- over -

PRECLINICAL DATA

LigoCyte has found that the inhibition of both E- and L-selectin in combination gives our antibody unique properties. In numerous studies of the murine form of our anti-CD62 mAb, known as EL-246, in large animal models (sheep, pig, primate) we have seen a reduction of neutrophil and macrophage recruitment to the lung. In addition to this anti-inflammatory data, we have run sheep models of pseudomonas infection in the lung and have shown that the antibody does not increase the opportunity for infections. Rather, the infections appear to clear more rapidly with an attenuated inflammatory response.

In a macaca fascicularis primate model of pulmonary inflammation, EL-246 reduced 12-hour neutrophil and monocyte accumulation in the lung BAL by approximately 70% (compared to each animal's historical response). Inflammation was induced via an inhaled, aerosolized LPS challenge with the animals receiving murine EL-246 i.v. pre- and post-challenge. Since neutrophils and monocytes are key cells involved in the pathology of COPD, inhibition of cell recruitment may impact mucus hyper-secretion, enzymatic degradation, acute exacerbations, lung function and ultimately progression of the disease.



INTELLECTUAL PROPERTY

LigoCyte currently has twenty four U.S. and national stage patents and applications that cover our anti-CD62 antibody program. Claims cover biologic composition of matter and methods of treatment.

STATUS

LigoCyte is currently evaluating four humanized monoclonal IgG1 antibodies in order to select a lead candidate. All four constructs recognize a unique conformational epitope on both E-selectin and L-selectin. Following lead selection, LigoCyte plans to run a confirmatory primate model with the humanized antibody to measure neutrophil, macrophage and lymphocyte inhibition into the lung before initiating clinical manufacturing, toxicology and pharmacology studies.

COMPANY SUMMARY

LigoCyte Pharmaceuticals, Inc., is a biotechnology company focusing on the development of therapeutic antibodies and vaccines. We develop drugs that manipulate the way the immune system recognizes and responds to inflammation and infection to effect the disease process. Our focus is the immunology of mucosal surfaces, which governs inflammatory diseases of the gut and lung and addresses the most common routes of infection. In addition to our anti-CD62 mAb program, LigoCyte's pipeline includes a number of other promising therapeutic antibodies and vaccines.

For more information, please contact:

Donald Beeman
Chairman & Chief Executive Officer
don.beeman@ligocyte.com

-or-

Robert Goodwin, Ph.D.
President & Chief Operating Officer
robert.goodwin@ligocyte.com

LIGOCYTE[®]
PHARMACEUTICALS, INC.
2155 Analysis Drive • Bozeman, MT 59718
(406) 585-2733