

Silurian Pharmaceuticals, Inc. to present at the American Thoracic Society, San Francisco, CA

Silurian will present recent results of its drug Brevenal for the treatment of defective mucociliary clearance and the prevention of exacerbations in Cystic Fibrosis, at the ATS, San Francisco, CA.

Brevenal is a promising new therapy for patients with cystic fibrosis. Low doses reverse the inhibition of airway mucociliary function caused by CFTR inhibitor 172 and human neutrophil elastase (HNE) in sheep. It also alleviates bronchoconstriction caused by HNE. This demonstrates that brevenal's activity is independent of CFTR, as well as it addresses the downstream pulmonary complications cause by HNE.

More so, it appears that brevenal's effect on mucociliary function is superior to currently used therapies in CF patients and can be used in combination with CFTR modulators.

In this current study sheep challenged with a combination of CFTRinh-172 (CFTRinh) + human neutrophil elastase (HNE) exhibit slowed mucus clearance, measured by tracheal mucus velocity (TMV). It has been reported that HNE contributes to slowing of mucus transport, increasing mucus solids, stimulating ENaC and degrading CFTR. In *in vitro* studies in CF- HBE cells ENaC stimulation results in increased airway surface liquid (ASL) absorption while CFTR degradation results in decreased ASL secretion. Our studies in CF HBE cells show that brevenal increases ASL secretion as well as abrogated increased ASL absorption caused by TGF β 1. We recently showed that Sheep challenged with CFTRinh-172 (CFTRinh) show slowed mucus clearance, which can be corrected by aerosol ivacaftor or brevenal in a dose dependent manner. More so, the combination of an inactive dose of Ivacaftor and brevenal resulted in significant reversal of slowed mucus clearance in the sheep, suggesting an additive effect for the drugs.

About Silurian Pharmaceuticals, Inc.

Silurian Pharmaceuticals, Inc. is dedicated to the development of new approaches for the treatment of pulmonary disorders in CF and COPD. Silurian harnesses the discovery of the novel polyketides from Marine organisms.

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