Lisofylline (LSF) is an antiinflammatory compound that selectively inhibits the formation of oleate- and linoleate-containing phosphatidic acid. LSF is a metabolite of pentoxifylline and is approximately 800-times more active than pentoxifylline as an inhibitor of PA formation in LPS-stimulated P388 monocytic leukemia cells. LSF does not inhibit the activation of phosphatidylinositol-specific phospholipase C. LSF protected BALB/c mice from LPS-induced lethality. In rats, LSF prevented oxidant-mediated capillary leak in isolated rat lungs previously treated with IL-8. This was not due to either its anti-inflammatory activity or to the scavenging of reactive oxygen radicals. Instead, LSF appeared to alter the phospholipid composition of pulmonary capillary membranes and render this barrier less vulnerable to oxidative damage. Lisofylline also protects intestinal barrier function after ischemic or hemorrhagic shock, perhaps by preserving microvascular structure and perfusion.

Preparation Instructions
Lisofylline is soluble in DMSO.

Storage/Stability
Store at room temperature.

References