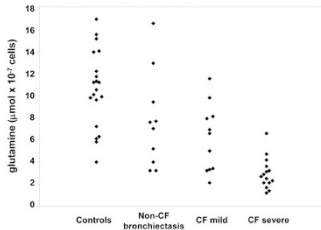


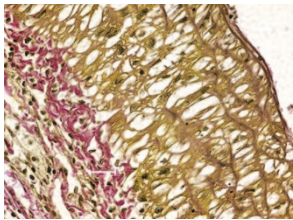
Herpes Simplex virus 1 enhances apoptosis in neonatal but not adult neutrophils by increasing the expression of FAS and FAS ligand on the surface with an increased release of the soluble FAS ligand. This is a mechanism by which HSV-1 infection diminishes the anti-viral response thereby increasing the severity in newborns.

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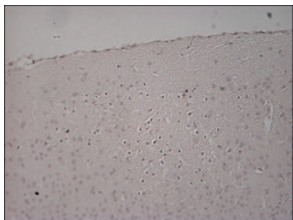
Neutrophil glutamine content was observed to be low in patients with cystic fibrosis carrying class I, II, and III mutations. These findings support an important role for intrinsic neutrophil amino acid metabolism in the pathogenesis of pulmonary inflammation in systemic fibrosis.

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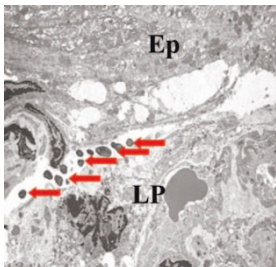
In a mouse model of mucopolysaccharidosis I, (Hurler syndrome) a uniformly lethal autosomal recessive storage disease caused by absence of the α -L iduronidase enzyme that is involved in lysosomal degradation of sulfated glycosaminoglycans, aortic insufficiency with increased ventricular size and dysfunction are observed. Despite differences from the human condition, this mouse model provides a key tool for assessing intervention strategies.

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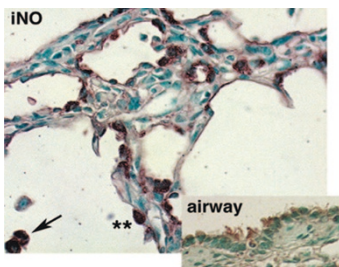
Lipopolysaccharide induced endogenous corticosterone surge twenty-four hours prior to a hypoxic ischemic insult in newborn rats resulted in a tolerance thereby decreasing brain injury. Photomicrograph courtesy of Camille Fung, M.D., UCLA David Geffen School of Medicine.

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Intermittent maternal separation results in permanent colonic mucosal barrier dysfunction including impaired host defense to luminal bacteria by a mechanism involving corticotropin releasing hormone receptors

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Nitric oxide therapy in preterm baboons increased maximal lung volume by a process not related to surfactant function. This study has implications to infants with chronic lung disease where nitric oxide may exert effects by reducing airway resistance by inhibiting smooth muscle cell proliferation rather than surfactant function.

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