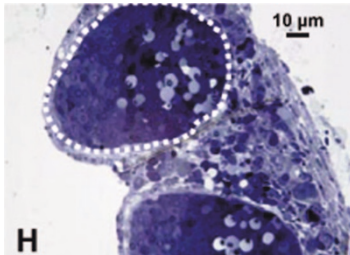


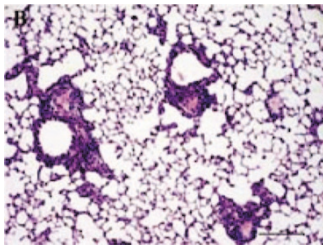
Hyperoxia inhibits distal airway branching and directly induces apoptosis of the fetal mouse lung mesenchyme. NF- κ B activation can explain this phenomenon of apoptosis in a subtype of cells alone. These observations provide a basis for the development of bronchopulmonary dysplasia.

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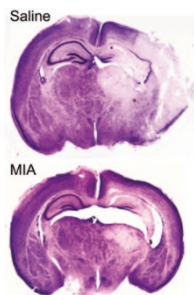
3-hydroxyglutaric acid (3-OH-GA) a metabolite of glutaric aciduria type 1 inhibits vascular endothelial growth factor induced cell migration and causes partial disintegration of endothelial cells due to disruption of the actin cytoskeleton. These changes ultimately result in vascular dilatation and hemorrhage. These observations provide insight into the vasculopathy encountered in glutaric aciduria type 1.

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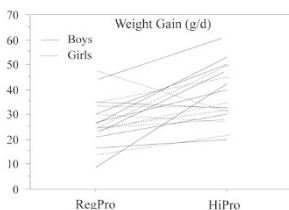
Respiratory syncytial viral infection reverses the anti-asthma effect of neonatal Bacillus Calmette-Guerin vaccination. This effect was not mediated by inflammatory processes.

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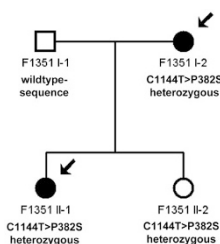
When activated, the Na⁺/H⁺ exchanger results in rapid normalization of pHi and rebound alkalosis following reperfusion. Alkalosis has a deleterious effect on neurodevelopmental outcome. In this study N-methyl-isobutyl-amiloride, an inhibitor of the Na⁺/H⁺ exchanger provides neuroprotection in neonatal hypoxic-ischemic injury.

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Intake of a high protein formula by very low birth weight infants led a higher protein accretion paralleled by better weight gain without metabolic stress. Further studies are required to establish the long-term benefits beyond these short-term outcomes.

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In addition to the previously described NPHS1 mutations encoding the podocyte protein nephrin, mutations in exons 8 and 9 of the Wilm's tumor predisposing gene (WT 1) have been found in patients with sporadic or isolated steroid resistant nephrotic syndrome. This study supports the need for genetic testing and makes inroads into considering differential therapy. (See commentary, page 165, as well.)

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