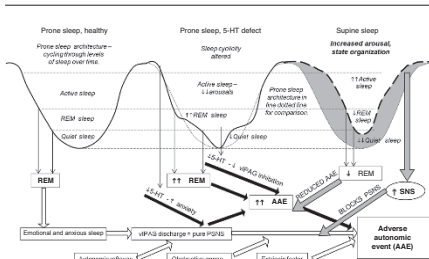


doi:10.1038/pr.2014.175

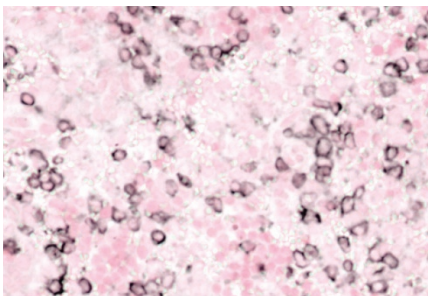
SIDS and supine sleep



Bergman's Integrated Mechanism Review explores how the supine sleep position reduces the risk of sudden infant death syndrome.

[See page 10](#)

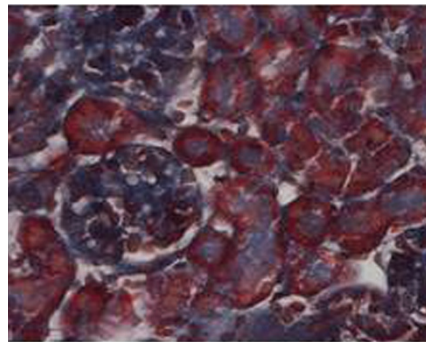
Fetal sheep spleen and inflammation



Kuypers and colleagues exposed fetal sheep to intra-amniotic lipopolysaccharide before delivery, at 125 days gestational age. They found that intrauterine inflammation induced a rapid and sustained splenic immune response with persistent changes in the cytokine profile.

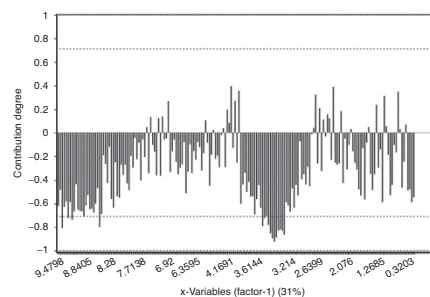
[See page 29](#)

Nicotine and kidney fibrosis



Chen and coinvestigators administered nicotine to pregnant Sprague–Dawley rats and subjected neonatal kidney tissues to histological analysis, collagen measurement, and western blot analysis. The results seemed to show that nicotine exposure during gestation and lactation induced neonatal kidney fibrosis. [See page 56](#)

Encephalopathy or febrile seizures?

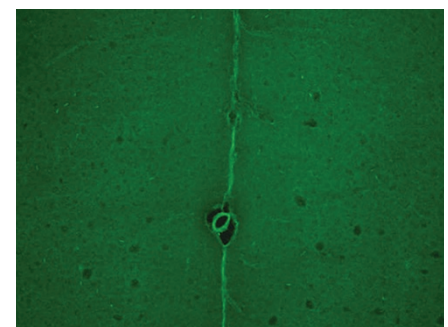


Differentiating acute encephalopathy from febrile seizures is difficult. Asano *et al.* looked for an early diagnostic

marker to enable appropriate early intervention. Cerebrospinal fluid (CSF) was obtained from patients with acute encephalopathy, complex febrile seizures, or simple febrile seizures. Using pattern-recognition analysis of proton nuclear magnetic resonance data, they found differences in the patterns of CSF characteristics between the groups.

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Brain injury in hypoglycemia



Ennis and coauthors subjected 3-week-old rats to insulin-induced hypoglycemia and treated them with either 10% or 50% dextrose. Neuronal injury, poly(ADP-ribose)polymerase-1, and brain-derived neurotrophic factor III/TrkB/p75NTR expressions were determined. In a second experiment, ketonemia was induced by administering β -hydroxybutyrate during hypoglycemia, and its effect on neuronal injury was compared with that in rats conventionally treated using 10% dextrose. Only ketonemia during hypoglycemia attenuated neuronal injury. [See page 84](#)