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Allergy and ADHD/ODD



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Lin and coauthors investigated the detailed associations between allergic diseases with attention deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder in children. Analysis of clinical information for nearly 3,000 children enrolled in the Taiwan Children Health Study appeared to show that children with symptoms of allergic diseases were more likely to develop different subtypes of ADHD-related behavioral disorders.

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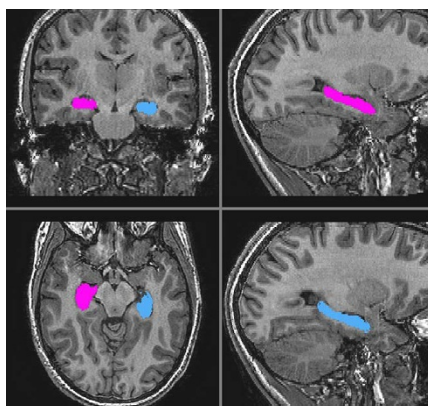
Unexplained neonatal death or collapse

There is currently no national system in Australia for reporting and investigating cases of sudden unexpected early neonatal death or acute life-threatening events. In a three-year prospective national surveillance study of New South Wales and Queensland, Lutz *et al.* found the incidence of such events to be 0.1 and 0.08 in 1,000 live births, respectively. Among 48 definitive cases, 26 babies collapsed on day 1, and 19 were found on the carer's chest. Development and implementation of guidelines for safe sleeping, in the hospital as well as in the community, are needed.

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Hippocampal size and congenital heart disease

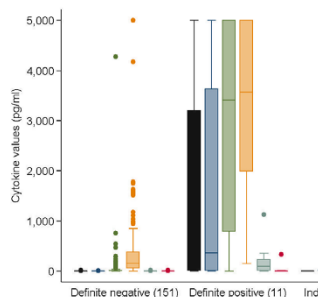
Latal and coinvestigators sought to determine whether hippocampal volume was reduced in adolescents



with congenital heart disease (CHD) and whether altered volumes were related to functional outcome. At a mean age of 13.8 years, 48 adolescent survivors of childhood cardiopulmonary bypass surgery for CHD and 32 healthy controls underwent neurocognitive testing and cerebral magnetic resonance imaging. The adolescents with CHD had 10% lower total hippocampal volumes compared with controls.

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CSF cytokines in infant meningitis

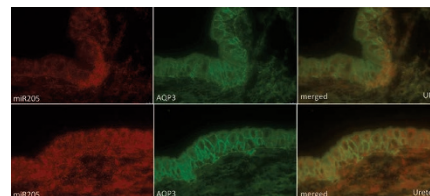


Pro- and anti-inflammatory cytokines are elevated in bacterial meningitis and may be useful diagnostic adjuncts when cerebrospinal fluid (CSF) cultures are negative. Srinivasan *et al.* used cytometric bead arrays to measure specific cytokines present in infant CSF. Receiver operating characteristic analyses and principal component analysis were used to determine cytokine combinations that identified bacterial meningitis. The authors found that interleukin-6 and -10 were the individual cytokines that provided the

greatest accuracy in diagnosing culture-proven bacterial meningitis.

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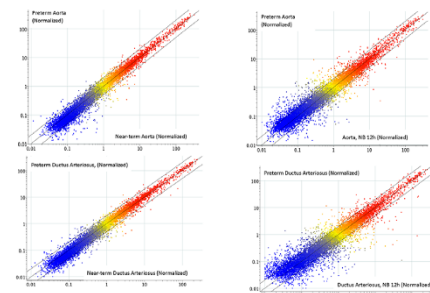
miR-205 in obstructive nephropathy



A better understanding of molecular and cellular changes is needed to facilitate development of improved biomarkers and novel therapeutic approaches in congenital obstructive nephropathy (CON). Wilhide and colleagues characterized a particular microRNA, miR-205, whose expression changes with the degree of hydronephrosis in the megabladder (mgb) mouse kidney. They found that miR-205 increased with severity of CON in the mgb^{-/-} mouse and may regulate urothelial differentiation.

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Developmental gene regulation in ductus arteriosus



Goyal and co-researchers used fetal and neonatal sheep to test the hypothesis that development of ductus arteriosus (DA) is associated with significant alterations in specific mRNA expression. They conducted oligonucleotide microarray experiments on isolated mRNA from DA and ascending aorta from premature, near-term, and newborn lambs, and compared alterations in mRNA expression. Results identified several candidate genes that may be important in DA maturation.

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