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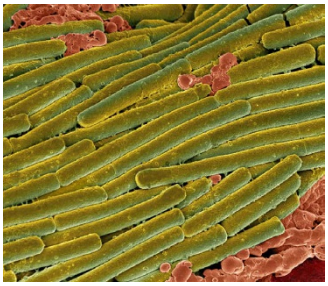
Fecal microbiota transplantation



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Hourigan and Oliva-Hemker take into account the developing microbiome of children in their review of fecal microbiota transplantation.
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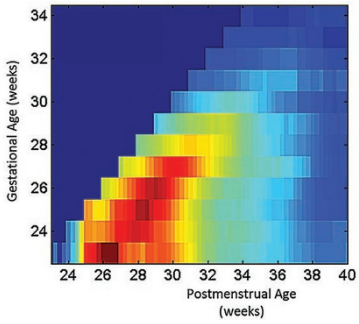
Apnea of prematurity



Apnea of prematurity is common among very preterm infants, but neither the apnea burden nor its clinical associations have been systematically studied in a large consecutive cohort. Fairchild and colleagues analyzed continuous bedside-monitor chest impedance, electrocardiographic waveforms, and oxygen-saturation data collected from preterm patients in a neonatal intensive-care unit. The results indicate that frequency of apnea events is a function of gestational age and postmenstrual age in infants born preterm, and that increased apnea is associated with acute, but not chronic, pathological conditions.
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Visual tracking in preterm infants

Kaul and coauthors hypothesized that visual tracking ability in very preterm infants predicts later neurodevelopment. In 67 very preterm infants, eye and head movements were assessed at 4 months corrected age while each infant tracked a moving object. The results were evaluated in relation to the visual tracking data as well as to perinatal risk factors. Among other important findings, significant correlations were found between gaze gain and cognition, receptive and expressive language, and fine motor function.
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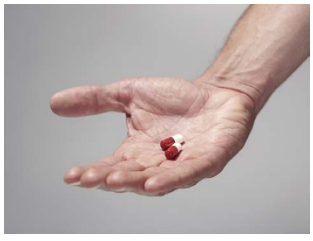
Drug-resistant HIV-1 infection



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Huerta-García and colleagues conducted a retrospective study of a cohort of HIV-1-infected children in whom antiretroviral therapy (ART) had failed. The switch of an ART regimen was guided by genotyping data. Darunavir/ritonavir, raltegravir, and etravirine were found to be well tolerated in the pediatric population studied, indicating their potential as options for children exposed to extensive ART.
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mRNA expression in SIDS

Ferrante *et al*. investigated messenger RNA (mRNA) gene expression in cases of sudden infant death syndrome (SIDS) and controls in order to uncover genes that are differentially expressed in the two groups. Tissue from brain, heart, and liver from 15 SIDS cases and 15 controls were included in the study, and 17 genes showed significantly altered expression compared with controls. Three genes involved in the immune system were of particular interest, strengthening the hypothesis that impaired immune response plays a role in SIDS.
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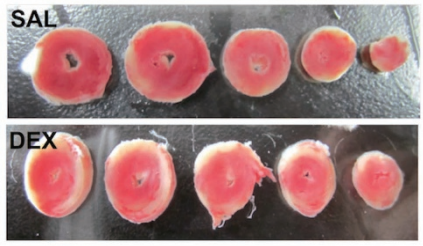
Effects of neonatal dexamethasone on rat hearts



Few studies have evaluated stress-induced cardiac functional alterations in adults after neonatal glucocorticoid treatment. Jiang and coinvestigators evaluated adult cardiac functional recovery during postischemic reperfusion and measured cardiac gene expression in rats treated with dexamethasone (DEX) within 3 days of birth. At 24 weeks of age, insulin tolerance tests were performed, plasma lipid levels were measured, and left ventricular function and myocardial infarct size were assessed. Neonatal DEX administration appeared to cause long-term detriment, including dyslipidemia, impaired cardiac recovery function, and increased infarct size.
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