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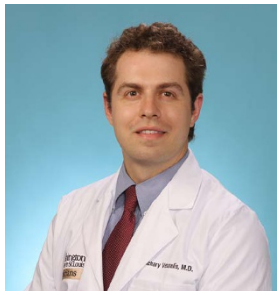
Early Career Investigator



Congratulations to Zachary A. Vesoulis, MD, this issue's Early Career Investigator! Read his Commentary to understand his passion for the autoregulation of cerebral blood flow. Comparing fractional tissue oxygen extraction between two groups of preterm infants (23–25 weeks and 26–28 weeks), he and his colleagues found that the less mature infants could not compensate for low blood pressure with an increase in the oxygen extraction. **See pages 893 and 944**

Alcohol use in Italian middle school students

Cultura/Seb Oliver/©Getty Images

Alcohol use in high school students has been described, but little is known about drinking among middle school students. Zucco *et al.* describe widespread alcohol consumption among 12- to 15-year-olds in a province in Italy, and factors that increase the risk of drinking. **See page 915**

Detecting cardiovascular risk in normal-weight children

Normal-weight children may also be at risk to develop cardiometabolic diseases. Simental-Mendía *et al.* show that the triglycerides and glucose index is a useful

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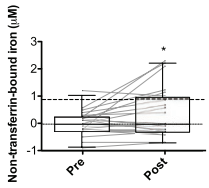
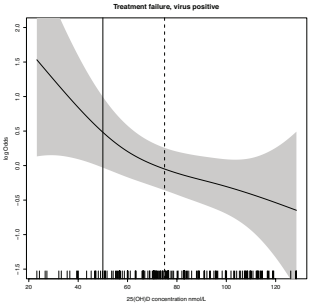
biomarker for detecting the presence of cardiovascular risk factors in children of normal weight. **See page 920**

Increase in hemolysis and inflammation markers after transfusion in VLBWs



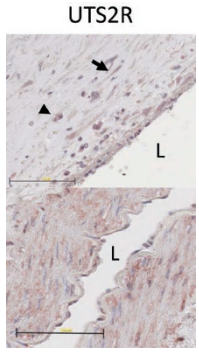
Concerns are increasingly being raised over blood transfusions in very-low-birth-weight infants (VLBWs). Kalhan *et al.* found an increase in serum iron, total bilirubin, non-transferrin-bound iron (NTBI), and monocyte chemoattractant protein following transfusion. A later increase in NTBI was associated with longer storage times of the units. **See page 974**

Vitamin D status impacts the course of severe pneumonia in children



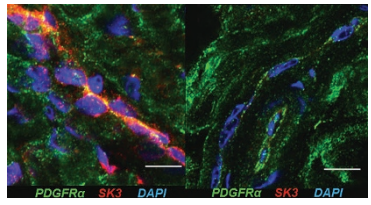
Subclinical vitamin D deficiency has been associated with increased risk for development of respiratory disease as well as with its severity. Haugen *et al.* examined outcomes of severe pneumonia in Nepalese children in relationship to their vitamin D concentrations, and found that a concentration less than 50 nmol/l was an independent risk factor for treatment failure and prolonged duration of illness. **See page 996**

Urotensin 2 in Kawasaki disease pathogenesis



Kawasaki disease (KD), the most common cause of acquired heart disease in children, leads to coronary aneurysms. The mechanism of the formation of the aneurysms is not known, but an increased risk is associated with variants in calcium/sodium channel gene solute carrier family 8 member 1 (*SLC8A1*). Huang *et al.* describe an increase in urotensin 2 in the blood of subjects with KD homozygous for three risk alleles in *SLC8A1*, and speculate on its role in the formation of aneurysms. **See page 1048**

A new cell type related to ureteropelvic junction obstruction



Hunziker *et al.* report a new cell type in the ureteropelvic junction (UPJ) that expresses platelet-derived growth factor receptor alpha. In a comparison of control human UPJ and congenital obstructed UPJ, they found decreased expression of small-conductance calcium-activated potassium channel 2 (SK2). This reduction might account for reduced peristalsis across the junction. The cause of the reduced expression remains unknown. **See page 1080**