EDITOR'S FOCUS

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Early Career Investigator

Congratulations to Rodrigo Del Rio, the ECI for July. Dr. Del Rio was born, raised, and educated in Chile. After receiving his doctorate, he came to the United States for postdoctoral training, then returned to the Pontificia Universidad Católica de Chile to join the biological sciences faculty. As a faculty member, he has encouraged his lab to apply the full spectrum of translational science—in vitro, in vivo, and human studies—to investigate their questions. Also in this issue, he and colleagues describe their clinical study of alterations in heart rate variability in infants with hypertonia. See pages 9 and 77

Conversations

We are excited to present in this issue two editorials and four commentaries; two pairs of these pieces are in conversation with each other. See the discussions of bias in publishing (pages 2 and 10) and surfactant administration (pages 12 and 15). Such exchanges serve to deepen and enrich the examination of current topics of interest. We wish to encourage more such interaction! (Photo: Mykyta Dolmatov/iStock/Getty)

The role of immunothrombosis in pediatric disease
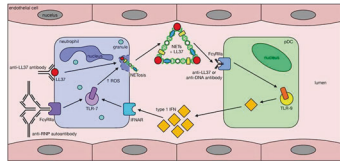
Franchi et al. review the triggers of formation of neutrophil extracellular traps (NETs), part of the innate immune response to microbial agents. However, excessive production or deficient clearance of NETs leads to immunothrombosis, resulting in several pediatric disease states. Awareness of this mechanism is just emerging, and several gaps in knowledge have been identified. This review is bolstered by the commentary by Yost C. C., who specifically describes NET formation in neonates. See pages 19 and 17

Pathobiology of PDA in preterm infants
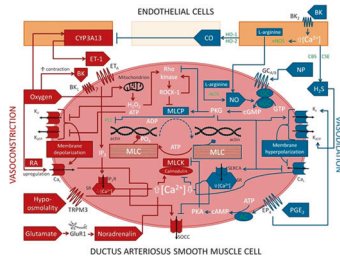
In their Special Article, Hundscheid et al. discuss the in utero physiologic status of the ductus arteriosis and the pathways leading to its postnatal closure in term infants. They describe how these pathways predispose to patent ductus arteriosus (PDA) in preterm infants, and how this knowledge might lead to novel therapeutic interventions. See page 28

Ponderal index versus BMI-for-age z-scores
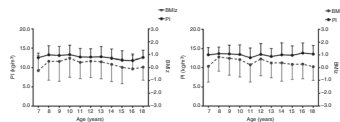
Zaniqueli et al. describe a cross-sectional study of 1149 6- to 18-year-olds in Brazil to compare the diagnostic accuracy of the ponderal index with that of body mass index (BMI)–for-age z-scores. Both indexes were surprisingly stable over the age range. The ponderal index had a lower false-positive rate, suggesting that it may be a more reliable indicator of obesity. See page 128

Early prediction of need for phototherapy in preterm infants
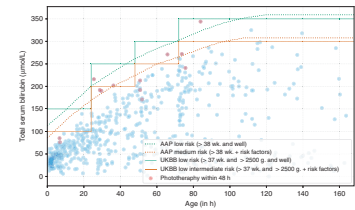
Daunhawer et al. used machine learning to predict clinically relevant hyperbilirubinemia in preterm infants. They found that, of 44 variables, a subset of four sufficed to predict the need for phototherapy within 48 h: bilirubin level, weight, gestational age, and hours since birth). They have made their predictive tool available on the web. See page 122

H_2S reduces airway reactivity in response to environmental tobacco smoke and RSV
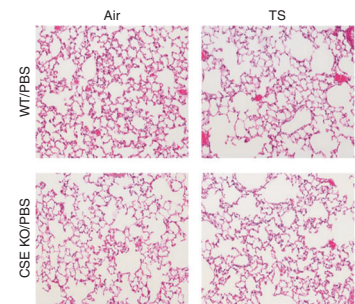
Ivanciuc et al. used mice deficient in cystathionine γ-lyase enzyme (CSE, the major H_2S-generating enzyme) to explore the role of H_2S in response to environmental tobacco smoke (ETS) and respiratory syncytial virus (RSV) co-exposure. Airway reactivity and disease following exposure to ETS, with or without RSV infection, were significantly worse in the CSE-knockout animals, thus implicating CSE as a protective mechanism. See page 39