EDITOR'S FOCUS

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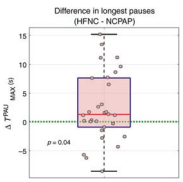
Early Career Investigator

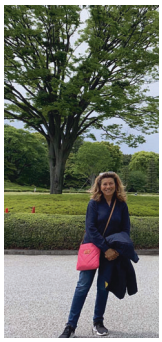
Congratulations to Nadia Liotto, the Early Career Investigator for January. Born and raised near Milan, Nadia studied at the University Study of Milan, where her thesis was on X-linked agammaglobulinemia. Her PhD studies were on the nutritional outcomes of infants with intrauterine growth retardation. Her subsequent training and interest have been focused on neonatal nutrition in the neonatal intensive care unit. She tells the students and residents whom she has mentored that a desire to learn and scientific curiosity are "crucial for the health of our little patients." In an article in this issue, she and colleagues report that twins born prior to 34 weeks' gestational age had growth similar to that of singletons, but beyond 34 weeks the growth patterns diverged. See pages 7 and 57

HFNC after extubation resulted in longer respiratory pauses



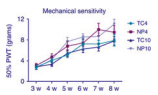
Kanbar et al. studied respiratory physiology after extubation in extremely preterm infants, comparing nasal continuous positive airway pressure (nCPAP) with high-flow nasal cannula (HFNC). They found that infants on HFNC had longer respiratory pauses and required higher fraction of inspired oxygen than infants extubated to nCPAP. In a related Comment, Aly and Mohamed describe the differences between nCPAP and HFNC, and recommend using the former except in situations when it is infeasible or difficult to apply. See pages 62 and 11

Global Pediatric Research Investigator



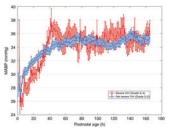
Our first Global Pediatric Research Investigator is the accomplished Zeinab Anwar El-Kabbany, from Cairo, Egypt. She wakes early and swims before going to work and loves listening to classical music. She has been a professor at Ain Shams University in Cairo since 1998 and has co-supervised over 100 master's and doctoral students. She draws great satisfaction from the ability to "convey my knowledge and experience to younger generations." In this issue, she and colleagues report an association between respiratory distress syndrome and biomarkers of oxidative stress. See pages 8 and 74

Pain in preterm infants



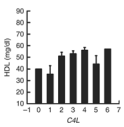
Two articles in this issue highlight the topic of pain in the neonatal intensive care unit. In one, van den Hoogen et al. describe how repetitive noxious stimuli to a rat model of preterm infants altered mechanical sensitivity in adults. In the other, Pierrat et al. report that perceived maternal information about infants' pain increased maternal involvement during painful procedures. Reinforcing the importance of this topic are the accompanying Comment by Campbell-Yeo urging greater translational strategies and parental involvement to reduce pain, and the Family Reflections piece by Labrie on the impact on family members of observing painful procedures. See also the Insights Image illustrating neural pain pathways. See pages 26, 153, 15, 176 and 178

Association of blood pressure extremes and severe IVH in preterm infants



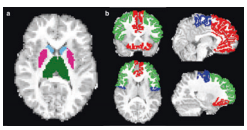
Vesoulis et al. studied 157 preterm infants ≤30 weeks of gestational age to obtain 85 million blood pressure measurements. They found that infants with severe intraventricular hemorrhage (IVH) spent more time with very low or very high blood pressure. In a related Comment, Batton discusses five important limitations of this study and urges a "first do no harm" approach. See pages 69 and 13

Association of C3 and C4 with cardiometabolic risk in adolescents



In a study in healthy non-Hispanic white adolescents, Copenhaver et al. found that levels of complement component C3 increase with body mass, and increased C4 concentrations and copy number are associated with a higher cardiometabolic risk. See page 88

Corticostriatal and thalamocortical tracts are vulnerable in preterm infants



In a study by Thompson et al., 83 very preterm and 19 term-born infants underwent magnetic resonance imaging and neuropsychological testing at 7 years of age. Preterm infants had decreased connectivity in the corticostriatal and thalamocortical tracts. Reduced connectivity was associated with adverse motor functioning in both groups. See page 48