

## EDITOR'S FOCUS



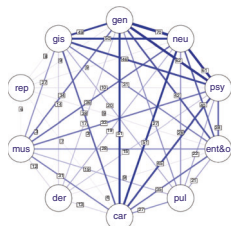
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### Early Career Investigator



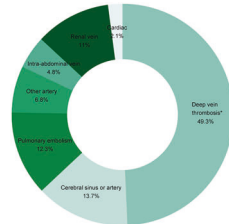
Congratulations to Marc Beltempo, the Early Career Investigator for May 2023. He is a neonatologist and clinician-scientist at the Montreal Children's Hospital, McGill University Health Center, in Montreal, Canada. His research focuses on understanding growth and neurodevelopment in preterm infants. He has learned the importance of mentorship and multicenter collaborations to carry out pediatric clinical research. In his ECI Biocommentary, Dr. Beltempo describes several important lessons he has learned along the way, including the importance of using research to inform improvements in clinical practice. Elsewhere in the issue, he and colleagues examine growth trajectory in infants with bronchopulmonary dysplasia. The multicenter study found that preterm born infants with bronchopulmonary dysplasia had different body mass index growth trajectories compared with infants without bronchopulmonary dysplasia. The findings indicate that appropriate growth and nutritional goals for preterm infants with bronchopulmonary dysplasia may differ from those for preterm infants without this condition. [See pages 1450 and 1609](#)

### COVID-19: antibodies in breast milk, long COVID, and MIS



Evaluating the medical records of 89 children with long COVID syndrome, Garai et al. found that most children had at least some minor impairment of their quality of life. Evidence-based pediatric guidelines and controlled studies are needed to better understand the impact of long COVID in children. Bode et al. analyzed donated breast milk samples from women with confirmed SARS-CoV-2 infection in pregnancy for the presence of SARS-CoV-2 proteins. They found IgA reactive with a variety of SARS-CoV-2 antigens. An interesting finding was the heterogeneity of the immunological profiles of proteins between the samples. In a Review Article, Molloy and colleagues present the current understanding of the pathophysiology and clinical management of multisystem inflammatory syndrome (MIS) in children and neonates following SARS-CoV-2 infection. A consensus definition is needed to inform future clinical trials and outcome studies. Finally, in a related Comment, Schleiss et al. discuss important pediatric public health priorities with the COVID-19 pandemic—and its impact on children—far from over. [See pages 1616, 1626, 1499, and 1451](#)

### Thromboembolism in children with nephrotic syndrome



Dadgar et al. performed a systematic review of studies reporting thromboembolic events in children with nephrotic syndrome. Multiple thromboembolism sites are reported, with the most common type being deep vein thrombosis. They found that children with congenital nephrotic syndrome and those with steroid-resistant disease are at heightened risk of this potentially serious complication. Children with nephrotic syndrome who are at higher risk may therefore benefit from thromboembolism screening and potentially prophylaxis. [See page 1463](#)

### Longitudinal study of babies with opioid exposure



Bann et al. describe a prospective multisite cohort study protocol for the ACT NOW Outcomes of Babies with Opioid Exposure (OBOE) study. This study will combine comprehensive quantitative brain imaging analysis with standardized neurodevelopmental evaluations to assess structural and functional brain development and multi-domain child neurodevelopmental outcomes over the first 2 years of life following antenatal opioid exposure. Given the serious issue of opioid use in pregnancy and the increasing incidence of neonatal withdrawal syndrome, this study will provide critically needed information about the long-term structural and neurodevelopmental effects on offspring from in utero opioid exposure. The study is currently recruiting exposed and control infants, and we look forward to its findings. (Photo: Mikael Vaisanen/Getty.) [See page 1772](#)

### Neonatal hypoglycemia and caudate volume



Kennedy et al. evaluated the relationship between neonatal hypoglycemia with neurodevelopmental outcomes and the caudate volume as measured by brain MRI at 9–10 years of age. They found that smaller caudate volumes were associated with behavioral difficulties in children. For children with neonatal hypoglycemia, caudate volume was positively associated

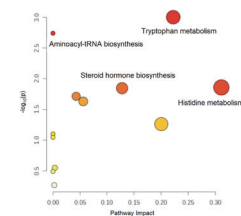
with assessment of visual memory. Caudate volume is important for social, behavioral, and emotional function, but overall does not seem to be significantly affected by early-life hypoglycemia. In a related Comment, Tam notes that the findings support neonatal evaluation for hypoglycemia, monitoring, and prompt treatment. It is important to be aware of the neonatal presentation of severe hypoglycemia with seizures and encephalopathy that can be associated with parieto-occipital brain injury and have significant neurodevelopmental consequences. (Photo: Andrew Brookes/Getty.) [See pages 1634 and 1456](#)

### Placental infection with *L. monocytogenes* affects the fetal brain



Lee et al. used a mouse model of *Listeria monocytogenes* placental infection to investigate whether there are sex-specific differences in neurodevelopmental and neuropsychiatric outcomes in offspring following infection. They observed that male mice born from infected placentas showed abnormal social interactions whereas female mice exhibited anxiety. The findings indicate that antenatal exposure to infection may thus have differing effects on neuropsychiatric outcome based on sex. Human outcome studies following exposure to antenatal infections should include sex as a factor in differences in neuropsychiatric outcomes in offspring. These findings may be applicable to bacterial, viral, and parasitic pathogens with infection during pregnancy. [See page 1566](#)

### Infants with intrauterine growth restriction have a distinct metabolomic profile



Priante et al. performed a prospective matched case-control study to compare the urinary metabolomic profiles between preterm infants with intrauterine growth restriction and those without. They identified differences in metabolomic pathways related to tryptophan and histidine metabolism, and sex hormone biosynthesis. The findings reveal differences in the metabolomic profiles of preterm infants with intrauterine growth restriction that can help inform future studies and precision medicine therapies. Differences in preterm neonatal outcomes related to growth may be associated with their unique metabolome. [See page 1599](#)

### Acknowledgements

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