

EDITOR'S FOCUS

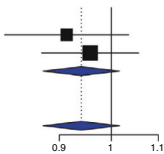
Volume 93 No. 3 February 2023

EARLY CAREER INVESTIGATOR



Congratulations to Elizabeth Yen, the Early Career Investigator for February 2023. Dr. Yen came to the United States from Indonesia for her undergraduate and graduate studies. She received a master's degree in psychology, but her interactions with children affected by the opioid epidemic drew her to a career in medicine. She obtained an MD and completed her pediatric and neonatal-perinatal training at Rutgers University, where she found her passion for a career as a physician-scientist. Dr. Yen moved on to Tufts Medical Center as a neonatologist and to research the molecular-structural-behavioral impact of prenatal opioid exposure. With mentors Jill Maron and Jonathan Davis, she developed a research strategy that led to several awards. In a study reported in this issue, Dr. Yen and colleagues found that prenatal opioid exposure modulates brain reward signaling through a pro-inflammatory process that is sex specific. Her advice to other early-career investigators is to remain passionate and focused on why they chose our career paths. See pages 465 and 604

EFFECT OF SEDATION FOR LISA IN PRETERM INFANTS



In this Systematic Review, Moschino et al. evaluate for the first time the impact of sedative drugs versus no sedation for less invasive surfactant administration (LISA) on short-term pulmonary outcomes and potential adverse events in preterm infants. They show that sedative drugs temporarily increase desaturations and apneic events and increase the need for nasal intermittent positive pressure ventilation. The authors call for further trials to explore the use of sedation for LISA. See page 471

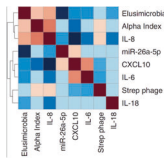
CHARACTERISTICS OF CHILDREN WITH IGA NEPHROPATHY



Zou et al. analyzed data from 22 hospitals for 4006 children with IgA nephropathy from 2016 to 2018 in China. They found that the incidence of IgA nephropathy was higher in males than females and that the

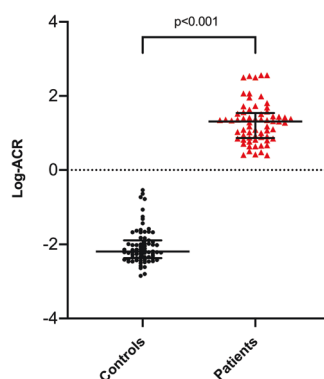
disease is related to environment and economic status. See page 715

ARPA-H AND RESEARCH IN CHILD HEALTH



Varisco et al. discuss the new Advanced Research Projects Agency-Health (ARPA-H) and the impact it will have on research into child health. They urge researchers in child and adolescent health to become aware of this new approach and funding opportunity (see <https://www.nih.gov/arpa-h>), not only for the possibility of funding "transformative moonshot" research but also to advocate that pediatric patients be included in this new opportunity. The authors note three potential projects described in this issue. Beheshti and colleagues show that a variety of host, viral, and bacterial factors in saliva are predictive of future wheezing episodes. Could this be developed into a precision, predictive model? Holgerson et al. characterize the oral, fecal, and breast milk microbiome in the first five years of life. Are there socioeconomic and racial disparities in infant mortality embedded in this information? Lucchini and colleagues document how the pandemic adversely impacted children's sleep habits. Could an integrated system improve the overall well-being of children in ways that targeted approaches cannot? ARPA-H could hold much promise as a funding mechanism to improve the lives of children and the adults they will become. See pages 451, 579, 570, and 586

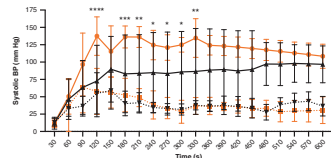
ACUTE KIDNEY INJURY IN CHILDREN WITH COVID-19



Saygili et al. investigated renal function in children infected with COVID-19. Using urinary biomarkers in 71 infected children and 75 controls, they found that the infected children had higher levels of urinary biomarkers than controls. Of the infected children, 16.9% developed acute kidney injury (AKI) and 31% had subclinical AKI. These cases occurred even in children with mild infection. A high neutrophil count was associated with the presence of AKI. The authors suggest that children

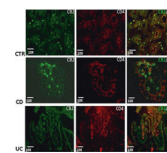
with COVID-19 should have their renal function assessed, and that these results may indicate the role of inflammation in the development of AKI. See page 654

EFFECT OF EPINEPHRINE IN RESUSCITATION OF PIGLETS



Andersen et al. investigated the effect of epinephrine on return of spontaneous circulation (ROSC) and MRS/MRI abnormalities in newborn piglets with hypoxic cardiac arrest. The use of epinephrine compared with placebo improved the rate of ROSC (10/13 versus 4/12). There was no statistically significant difference in either time to ROSC or 6-hour survival. There was also no difference between treated and control survivors in brain MRS/MRI or the composite endpoint of death or severe brain MRS/MRI. Because the investigators were unable to include more animals in the study, they note that the findings need to be confirmed in future studies. In a related Comment, Sankaran et al. review the available evidence supporting the use of epinephrine during neonatal resuscitation and call for more studies to determine optimal dosing, route, timing, and interval between doses. See pages 511 and 466

EXPRESSION OF CANNABINOID RECEPTOR TYPE 2 IN IBD



In previous studies, a polymorphism in the gene for cannabinoid receptor type 2 (CB2) was associated with risk for pediatric inflammatory bowel disease (IBD). To determine whether the CB2 protein is more highly expressed in IBD patients, Strisciuglio et al. studied ileal and rectal biopsies from five patients with Crohn's disease, five patients with ulcerative colitis, and five controls. Both western blot and immunofluorescence revealed increased expression of CB2 in pediatric IBD. In accompanying Insights pieces, two families present their experiences with their children with IBD and urge future research into this area. See pages 520, 732, and 734

ACKNOWLEDGEMENTS

Cynthia F. Bearer.