



EDITOR'S FOCUS

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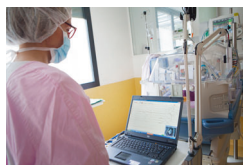
Early Career Investigator



Congratulations to Jessica Wallisch, the Early Career Investigator for March. Hailing from Kansas, she began her research career in a summer fellowship during medical school. Her interest in antioxidants was piqued early as she continued her studies on traumatic brain injury, neuroinflammation, and oxidative stress. She points out that as she has moved along her career path, she only adds more mentors. Her current focus is on water movement in post-cardiac arrest cerebral edema. In a study reported in this issue, she and colleagues used inhibitors of aquaporin-4 to identify a neuroprotective effect on neuronal death and behavior. She was awarded the 2018 Society of Critical Care Medicine In-Training Award for this work. Her advice? Found out what you are passionate about, and follow it. [See pages 415 and 511](#)

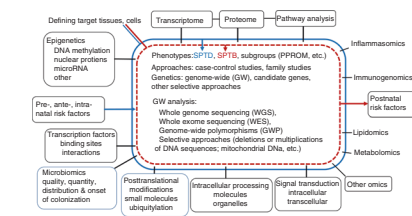
Hypothermia for mild neonatal encephalopathy

BSIP/Getty



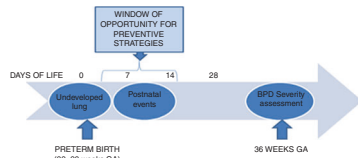
In this Special Article, an international team of experts reviews the evidence supporting the use of therapeutic hypothermia for mild neonatal encephalopathy. The challenges of performing a clinical trial to determine the impact of hypothermia in this group of patients are also discussed. [See page 442](#)

Genomics and spontaneous preterm birth



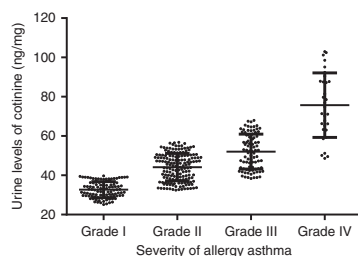
In this excellent review, Hallman et al. summarize candidate genes and their protein products, including their roles, localization, and regulation, as well as associated pathways that influence the onset of labor. In an associated commentary, Stevenson et al. discuss how genes may be impacted by environmental interactions, significantly complicating our understanding of spontaneous preterm birth. [See pages 422 and 416](#)

Preventing bronchopulmonary dysplasia



In another stunningly international review in this issue, Álvarez-Fuente et al. discuss the use of prognostic biomarkers and novel, complex in vitro human lung models to advance research in this area. Therapies may be developed using -omics, 3D organoids, and regenerative medicine. [See page 432](#)

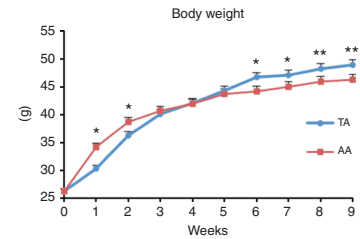
Passive smoking affects Treg/Th17 balance



Jing et al. divided 378 asthmatic children into four asthma-severity groups and measured urinary cotinine—a measure of

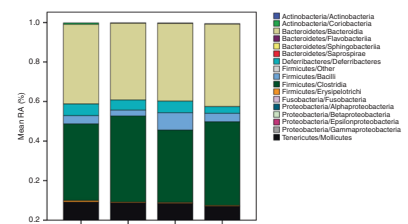
tobacco smoke exposure—and markers of T-regulatory (Treg) and T-helper type 17 (Th17) cells. They found that cotinine was significantly associated with asthma severity and a decreased ratio of Treg/Th17 cells. [See page 469](#)

Time-restricted feeding in juvenile mice



Time-restricted feeding (TRF) in adults has been shown to reduce fat and metabolic disorders, but it has not been studied in children. Hu et al. studied TRF in juvenile mice and found that it increased weight and caused metabolic disturbances and changes in gut microbiota. [See page 518](#)

Neuroblastoma causes changes in gut permeability, gut microbiota, and fecal VOC



Using an animal model of neuroblastoma and its chemotherapy, Castellani et al. found a pro-inflammatory state, increased gut permeability, and alterations in fecal volatile organic chemicals (VOC). They suggest that alterations in the gut microbiota may be the cause of the changes. [See page 546](#)