

In This Issue

This issue of the *Journal with Developmental Origins of Health and Disease* contains six original articles, bridging studies of humans and animals. As the final issue of 2017, the Journal is pleased to report a marked increase in the quality and quantity of manuscripts submitted, including both original research and reviews, as well as the highly valued themed issues. We wish to acknowledge the contributions of our excellent team of Associate Editors, our editorial staff, and the efforts of our many manuscript reviewers, without whose efforts the Journal would not be possible. We look forward to continuing our publication record in 2018, with articles reflecting the ever-growing field of developmental origins of adult health and disease.

Original Articles

The response of male and female rats to a high-fructose diet during adolescence following early administration of *Hibiscus sabdariffa* aqueous calyx extracts. Ibrahim and coauthors studied the effect of hibiscus sabdariffa (HS) in newborn rats from postnatal days 4 to 14. At weaning, offspring were randomized to a normal diet or a high-fructose supplementation for 30 days. The results demonstrated that female rats supplemented with HS were protected against fructose-induced hypertriglyceridemia and liver lipid deposition, though HS did result in a potentially adverse increase in plasma cholesterol, independent of fructose. In males, HS prevented the development of fructose-induced hypocholesterolemia. The authors suggest that HS administration during early life may have a potential impact on the prevention of obesity.

Associations among prenatal stress, maternal antioxidant intakes in pregnancy, and child temperament at age 30 months. Lipton *et al.* discuss the impact of prenatal stress and nutrition on child neurodevelopment and behavior. The authors examined associates among stress, antioxidant intake, and child behavior in a cohort of 137 mother/child dyads. The authors report that increased maternal prenatal negative life events were associated with higher child negative affectivity, effects which were mediated by prenatal intake of zinc selenium. The results suggest that a combination of elevated stress exposures and lower antioxidant intake in pregnancy increased the likelihood of child negative affectivity.

Predictors of adult's body mass index and the association with index child's infant birth weight, in the Lifeways Cross-Generation Cohort Study of thousand families in the Republic of Ireland. McKey *et al.* utilized the transgenerational Lifeways study to examine whether adult birth weights were associated with measures of health status or social position, as well as the child's birth weight. Among the many associations, the final model showed that adult's (reported) birth weight was significantly associated with adult body mass index.

The risk of stroke after prenatal exposure to famine. Horenblas *et al.* utilized the Dutch famine birth cohort (birth between 1943 and 1947) to examine hazard ratios of nonfatal stroke between participants exposed to famine during prenatal gestational periods. Although the authors were unable to find evidence for a major effect of prenatal famine exposure on the risk of stroke in later life, they emphasized that the study was underpowered and the study too population too young to identify smaller risks.

Intrauterine growth restriction-induced deleterious adaptations in endothelial progenitor cells: possible mechanism to impair endothelial function. Oliveira *et al.* assessed the effects of intrauterine growth restriction (IUGR) on vascular reactivity and endothelial progenitor cells in rat male offspring of food restricted dams. The authors demonstrate that IUGR reduced vasodilatation, decreased nitric oxide levels, and increased senescence processes, findings which may contribute to offspring endothelial dysfunction.

Maternal pregnancy C-reactive protein predicts offspring birth size and body composition in metropolitan Cebu, Philippines. Kuzawa *et al.* assess the relationship between maternal pregnancy inflammation, as reflected by C-reactive protein (CRP) and offspring anthropometric outcomes. After adjustment for multiple maternal factors, maternal CRP was significantly inversely related to offspring body weight, length, and skin folds. The authors conclude that there is a critical role of maternal nonspecific immune activation as a predictor of offspring birth outcomes.

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Journal of Developmental Origins of Health and Disease (J DOHaD)