

In This Issue

This issue of the *Journal of Developmental Origins of Health and Disease* contains a themed issue on the Developmental Origins of Adult Mental Health and Illness. The introductory editorial by Schmidt *et al.* details the programming of the fetus and young child's psychopathology. The editorial introduces the six papers in the themed issue, which includes two reviews and four original papers. In addition to the themed issue, this issue of *J DOHaD* contains three review articles and four additional original reports.

Review Articles

Human fetal growth restriction: cardiovascular journey through to adolescence. Sehgal *et al.* reviewed the effects of growth restriction in humans with regards to cardiovascular development, remodeling and dysfunction, focusing on how developmental impacts may persist with functional cardiac impairment during early childhood and adolescence. The authors further discussed the novel concepts of vascular mechanics and new opportunities for monitoring childhood and adolescent cardiovascular function.

Infection and pubertal timing: a systematic review. McDonald *et al.* introduced the declining age of puberty and examine the association between puberty timing and childhood infections. The authors confirmed that childhood infections are associated with timing of breast development though there are inconsistent findings associated with age at menarche.

Phthalates in neonatal health: friend or foe? Bowman and Choudhury provided update on phthalates, a primary plasticizer found in medical devices, which are known endocrine-disrupting compounds. The authors demonstrate the importance of phthalate exposure on epigenetic modifications and potential effects on developmental programming.

Original Articles

Prenatal and early-life predictors of atopy and allergic disease in Canadian children: results of the Family Atherosclerosis Monitoring In earLY life (FAMILY) Study. Batool *et al.* utilized the FAMILY Canadian birth cohort to evaluate prenatal

and early-life traits associated with atopy and/or allergic disease. The authors demonstrate an association between infant antibiotic exposure and increased atopy, whereas prenatal maternal exposure to dogs was associated with decreased atopy.

Lipids and leukocytes in newborn umbilical vein blood, birth weight and maternal body mass index. Brittos *et al.* assessed the relationship between maternal pre-pregnancy body mass index (BMI) and weight gain during pregnancy and newborn lipid profile and leukocytes. The authors demonstrate a direct correlation of pre-pregnancy BMI of overweight mothers with newborn's cholesterol levels. There was a direct correlation between birth weight and leukocyte counts of the newborn. Together these results indicate a potential interaction between maternal weight and newborn lipid metabolism and leukocyte count.

Spontaneous loss of a co-twin and the risk of birth defects after assisted conception. Davies *et al.* examined the association between fetal loss and the risk of birth defects in the surviving co-twin in a South Australia infertility clinic population. Compared with singleton pregnancies without a loss, a loss of a co-twin was associated with an increased risk of birth defects in the surviving twin, though twin pregnancies continuing to birth without loss was not associated with an overall increased prevalence of defects.

Influence of gestational age on serum incretin levels in preterm infants. Shoji *et al.* assessed the relationship between serum glucagon-like peptide (GLP) and glucose-dependent insulinotropic polypeptide with gestational age and insulin secretion in preterm infants. The authors demonstrate that in preterm infants enteral feeding may be associated with increased GLP-1 secretion and thus modify insulin secretion.

Michael G. Ross M.D., M.P.H.

Editor-In-Chief

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