

Special Issue

Molecular Insights into the Developmental Origins of Health and Disease

Message from the Guest Editors

Fetal development and infancy are characterized by the rapid growth, development, and maturation of organ systems. It has now become increasingly evident that several pathophysiological conditions, including diabetes and cardiovascular disease, that occur in adolescence and adulthood may have their origins during fetal or postnatal development. This Special Issue will bring together global experts in the field of developmental and molecular programming to provide an overview of as well as recent advances in the understanding of the long-term consequences of the programming of gene expression and the modification of the molecular biology of organ systems during fetal and postnatal development. Since nutritional exposure during fetal development can also be transmitted to further generations, the impact of heritable epigenetic modifications on nutritional programming and increased risk for disease in postnatal life will be described. Furthermore, the molecular aspects of normal fetal nutrition, growth, and development through efficient maternal nutrition before and during pregnancy will be highlighted as a novel strategy for the primary prevention of disease in later life.

Guest Editors

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