Special Issue

Maternal Nutrition and Placental Biology in Early-Life Programming

Message from the Guest Editors

This Special Issue, "Maternal Nutrition and Placental Biology in Early-Life Programming", highlights the placenta as the central integrator of maternal diet, metabolic status, and co-exposures that shape fetal development and long-term health. We invite original research, reviews, and methodological papers that elucidate mechanistic links between prenatal nutrition dietary patterns, macro-/micronutrients, one-carbon metabolism, molecular signalings, and gestational weight dynamics—and placental structure and function. Of particular interest are multi-omics approaches. placental pathways (nutrient transport, immune signaling, vascularization, circadian regulation), and studies connecting these signatures to infant birth and developmental phenotypes. We welcome work that addresses health equity, including populations in resource-limited or agricultural settings, and studies that evaluate interactions between nutrition and the broader prenatal exposome (e.g., endocrine disruptors, pesticides), as well as interventions and policy-relevant insights. Methodological contributions on mixture modeling, causal inference, and integrative analytics are encouraged.

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Message from the Editorial Board

Nutrients is an on-line open access journal that was first published in 2009. Nutrients adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of Nutrients has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

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