Abstract Awards

We are pleased to present the N&G 2024 Best Abstract Awards

N&G 2024 Best Abstract Awards in two categories: Neonatology/Infancy and Obesity

We are pleased to present the N&G 2024 Best Abstract Awards. The N&G award recognizes young physicians for their work in two categories: Neonatology/Infancy and Obesity. The awards are supported by an educational grant from the Nestlé Nutrition Institute for the best abstracts submitted to 11th International Conference on Nutrition & Growth.

The award recipients, selected by the N&G scientific committee, will be presented during the Opening Address.
Each abstract will receive a €5,000 prize.

Join us in congratulating the winners:

The Obesity Best N&G Research Award

Winner: Ms. Hong Sun

Affiliation: Erasmus University Medical Center

Abstract title: CHILDHOOD PLANT-BASED DIETARY PATTERNS: ASSOCIATIONS WITH NUTRIENT INTAKE, ADOLESCENT GROWTH, AND BODY COMPOSITION

An accumulating body of evidence suggests that plant-based diets (PBDs) are sustainable and have potential health benefits in adults. However, previous studies on PBDs during childhood mainly focused on vegetarian or vegan children, often with small sample sizes and inconclusive results. The

nutritional and health impacts of PBDs among general child population remained largely unexplored. Therefore, we investigated the associations of plant-based dietary patterns in mid-childhood with nutrient intakes, growth, and body composition in a prospective population-based cohort.

Introduction

Hong Sun is a PhD candidate in the Department of Epidemiology at Erasmus University Medical Center, Netherlands. She holds a BSc and an MPH degree in Nutrition Sciences from Sichuan University, China. As a registered dietitian with several publications in nutritional epidemiology, Hong specializes in maternal and childhood nutrition. She is currently engaged in the Generation R cohort, an ongoing large birth cohort study in the Netherlands. Her current research focuses on utilizing longitudinal cohort data to elucidate the associations between dietary factors in childhood and key outcomes like growth, body composition, and cognition.

The Neonatal & Prematurity Best N&G Research Award

Winner: Dr. Claire Guivarch

Affiliation: National University of Singapore – Yong Loo Lin School of Medicine

Abstract title: PLASMA AMINO ACIDS IN EARLY PREGNANCY AND LONGITUDINAL FETAL GROWTH TRAJECTORIES ACROSS PREGNANCY: FINDINGS FROM A PROSPECTIVE MULTI-RACIAL PREGNANCY COHORT

Both fetal growth restriction and overgrowth have been associated with short and long-term adverse health outcomes, such as elevated risks of perinatal morbidity and mortality, and increased risk for major chronic diseases over lifespan. As such, it is critical to identify maternal factors that may optimize fetal growth. Amino acids (AAs) are essential for fetal growth, as they are notably involved in protein synthesis and cellular function activation. The majority of

previous studies focusing on the associations between maternal amino acids and fetal growth examined fetal growth using neonatal anthropometry measures, and therefore have not assessed in-uterine fetal growth as characterized by fetal growth trajectories.

We investigated associations between maternal plasma amino acids in early pregnancy and fetal growth trajectories across pregnancy and assessed the relevance of the timing of associations, using data from the Fetal Growth Studies-Singleton Cohort at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD). Twenty-four AAs were measured using random blood samples collected during 10-14 gestational weeks. We observed that all AAs were significantly associated with fetal growth trajectories. The magnitude and direction of associations and the timing when associations became significant varied by different AAs. Our study suggests a potential important role of maternal AAs in optimizing fetal growth and highlights the relevance of timing for this role.

Introduction

After obtaining her PhD in epidemiology at the Université Paris Cité, Dr. Claire Guivarch joined the Global Centre for Asian Women's Health (GloW, website link: https://www.glownus.org/) at the National University of Singapore as a post-doctoral research fellow, under the mentorship of Pr. Cuilin Zhang. Leading research on the intergenerational impacts of parental factors on short and long-term offspring health in GloW, Dr. Guivarch's current studies focus on the associations between maternal plasma amino acids across pregnancy and fetal growth/neonatal anthropometry, and childhood cardio-metabolic health.