

The Department of Nutritional Sciences Spring 2021 Seminar Series

"Growth Retardation and Metabolic Adaptations: implications and solutions"

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Host: Joshua W. Miller, Ph.D.
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Wednesday, February 10, 2:15 PM

Zoom Registration: https://rutgers.zoom.us/meeting/register/tJ0sf-CgpjIpH9YtqdhknCQbTMc7lWN0XrUO

Abstract: The world is now in the midst of experiencing the "double burden of malnutrition" where overweight coexists with underweight and micronutrient deficiencies. This challenge to the human condition may be attributed to nutritional deficits and environmental exposures during pregnancy that may program a fetus or child to have a higher risk of chronic diseases in adulthood. As well, children who grow less than optimally have been reported to be at a higher risk for obesity despite consuming an inadequate diet. To explore what is commonly called the developmental origins of health and disease, this seminar will focus on how growth restriction in utero or during childhood can result in metabolic adaptations that increase the risk for higher adiposity compared to children who experience "healthy" growth. Studies from Brazil, Mexico, and S. Korea will be discussed to highlight adaptations in energy metabolism and body composition in children who are growth restricted along with potential mechanisms that may explain the relationship between poor growth and altered metabolism. As well, to promote healthy growth in lower income countries, a novel approach to ensuring adequate diet in an informal settlement in Kenya will be presented as one potential program to improve diet and growth as well as maternal empowerment and family income.



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