

SPECIAL SEMINAR

# Developmental Overnutrition

An old hypothesis with new relevance?

Professor Debbie Lawlor | Professor of Epidemiology



WELCOME BY

Professor John Lynch

SPEAKER

Professor Debbie Lawlor



Debbie Lawlor is Professor of Epidemiology, at the MRC Centre for Causal Analyses in

Translational Epidemiology, School of Social & Community Medicine, University of Bristol, UK.

Debbie comes from a background in clinical and public health medicine, and has been in a substantive academic post for the last 12 years.

Her research has contributed to understanding the life course and genetic epidemiology of obesity, diabetes, cardiovascular disease and women's reproductive health; with an interest in the relationship between women's reproductive health and her, and that of her offspring's, future cardiometabolic health.

The association between pregnancy diabetes and having a heavier and fatter baby has been recognised for many decades.

There is good evidence that the mechanisms underlying this association are the free transfer of glucose across the placenta, which results in 'overnutrition' of the developing fetus and stimulates greater fetal insulin secretion that acts as a growth hormone, further increasing the size of the infant at birth.

More recently this central process has been extended 'backwards' in the mother to propose that maternal greater adiposity (across the distribution) and gestational weight gain may also overfeed the developing fetus. It has also been extended 'forward' to suggest that not only are the resultant infants larger and fatter at birth they are programmed to be so throughout their lives.

If true, this developmental overnutrition could perpetuate the obesity epidemic across many generations in a way that would continue even after effective environmental interventions to prevent obesity. It is therefore important to establish how good the evidence is that greater maternal adiposity programmes offspring to greater adiposity in their later lives through intrauterine mechanisms.

The seminar will summarise current evidence related to the developmental overnutrition hypothesis and also introduce some novel methodological approaches to assessing causality, with an emphasis on the logic (and also limitations) behind these.

**Date:** Tuesday 24th January 2012

**Time:** 4.00pm - 5:30pm (registration from 3:45 and networking from 5-5:30pm)

**Venue:** Napier Building, 102 Lecture Theatre, North Terrace Campus, University of Adelaide

**Register online at:** <http://lawlorseminar.eventbrite.com.au/>

**or email:** [alissa.nightingale@adelaide.edu.au](mailto:alissa.nightingale@adelaide.edu.au)

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