

Yale SCHOOL OF PUBLIC HEALTH

Chronic Disease Epidemiology Perinatal Epidemiology Special Seminar

“Using Modern Population-Based Genetic Methods to Advance Perinatal Epidemiology”



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The perinatal period is of great importance to public health. For instance, an unfavorable intrauterine environment, restricted fetal growth, and preterm birth have been linked to multiple chronic diseases and early death. However, perinatal exposures and traits are challenging to study using traditional epidemiological designs, which may be affected by bias, low statistical power, and short follow-up times.

In this talk, I will first describe how maternal glucose tolerance and vitamin B12 levels are related to fetal growth and length of gestation, and in turn, how restricted fetal growth is associated with later cognitive function, using traditional epidemiological methods. Next, I will outline my work applying genetic epidemiological methods, such as Mendelian randomization analyses, genome-wide association analyses, and linkage analyses, to evaluate how body mass index and genes are associated with systemic infections.

Finally, I will discuss approaches to combine perinatal and genetic epidemiology, along with the use of large registry databases, to explore future innovative projects that may get us closer to the true causes and consequences of fetal growth restriction and preterm birth.

Monday, October 21, 2019

12:00-1:00pm (lunch incld.)

YSPH – Room 216 LEPH

60 College Street