HRM 728 GENETIC EPIDEMIOLOGY: Gene-Diet interactions

Lecturer: Dr. Russell de Souza

Please do not feel you have to read ALL of these; "choose" based on your own interests

MANDATORY

1. Ottmann: an introduction to concepts in gene-environment interactions
2. Do: case/control and ProCoh study of whether diet can genetic risk of CVD
3. Sacks: a 2-year RCT of different diets for weight loss

CHOOSE

1. Jacobsen or Gillberg
    a. Jacobsen is a small study that examined wehther short-term feeding of a high-fat diet could alter skeletal muscle DNA methylation in **healthy young men**
    b. Gillberg is a study that looked at whether short-term feeding of a high-fat diet could alter adipose tissue DNA methylation in **low-birth weight babies**
2. Casas-Agustench *or* Mattei *or* Zhang *or* Langenberg *or* Qi
    a. Casas-Agustench is a prospective cohort study looking at whether a **high saturated fat** diet influenced the effect of a genetic risk score on **BMI** in 2 large US cohorts
    b. Mattei looked at whether TCF7L2 variants influenced the **body composition** response to a low- or high- fat diet for weight loss over 2 years
    c. Zhang looked at whether APOA5 variants influenced the change in **lipid profile** in those following a low- or high-fat diet for weight loss over 2 years
    d. Langenberg is a big case-cohort study looking whether dietary patterns interact with a genetic risk score to impact risk of **type 2 diabetes**
    e. Qi looked at whether a **high fried food** diet influenced the effect of a genetic risk score on **BMI and obesity** in 3 large US cohorts