

# Propositions for this thesis

## Genetic and Environmental Influences on Early Growth

### The Generation R Study

1. Maternal physical characteristics and lifestyle habits are associated with changes in first trimester fetal growth. This manuscript.
2. The heritability of height and weight increases from the second trimester of pregnancy to early childhood. This manuscript.
3. The variant in *FTO* related to obesity in adulthood is associated with decreased body mass index during infancy followed by an increased body mass index in childhood. This manuscript.
4. The *PPARY2* Ala12 allele is associated with an increased growth rate during early life and this association is modified by breastfeeding duration. This manuscript.
5. A genetic variant in *ADCY5* is associated with birth weight and glucose tolerance, providing evidence for the fetal insulin hypothesis. This manuscript.
6. Since better pre-conception care is an important element in reducing perinatal mortality ([www.klaarvooreenkind.nl](http://www.klaarvooreenkind.nl), 2008), the general practitioners should be able to provide this information to women seeking to become pregnant (Poppe-laar FA, Family Practice 2004).
7. Maternal undernutrition during gestation has important effects on health and disease in later life of the child and it is the timing of this lack of nutrition that determines which organ system is affected (Painter RC, Reproductive Toxicology, 2005).
8. Genome-wide association studies performed in non-Caucasian populations will give us a much larger view of the genetics of complex diseases (McCarthy MI, Nature Genetics 2008).
9. Most published research findings are false (Ioannidis JP, PLoS Medicine 2005), especially in genetic epidemiology. But a little replication can go a long way (Moo-nesinghe R, PLoS Medicine 2007).
10. Genome-wide association studies on metabolites could ultimately lead to new approaches in personalized health care based on a combination of both genotyping and metabolic characterization (Gieger C, PLoS Genetics 2008).
11. Teaching a student can be as gratifying as treating a patient.