

Clinical Study Design: Thursday 5th July 19.30

I will discuss a number of aspects of the design of studies using clinical data and/or samples when researching placentally-mediated complications of pregnancy. The issues addressed will include:

- (1) validity, internal and external;
- (2) statistical power;
- (3) retrospective study designs, including case series, case control studies, nested case control studies, case cohort studies and retrospective cohort studies;
- (4) prospective studies, including cohort and interventional;
- (5) sample size;
- (6) association, causation and confounding;
- (7) analytic methods, including paired versus unpaired, parametric versus non-parametric, dichotomous versus continuous data, and multivariate analysis; and,
- (8) meta-analysis. The talk will be illustrated by examples from the literature with a focus on translational research on the role of the placenta in adverse pregnancy outcome.

Prof Gordon C S Smith