Reviewer's report

Title: Do intrauterine or genetic influences explain the foetal origins of chronic disease? A novel experimental method for disentangling effects.

Version: 1 Date: 18 March 2007

Reviewer: Richard G Ijzerman

Reviewer's report:

General
This paper describes a novel research strategy using children born through several techniques of IVF. Children and parents that are genetically related will be compared with children and parents that are genetically unrelated. This is a new strategy which may disentangle genetic and environmental influences on the association of size at birth with adult variables.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
This paper presents a very interesting new research method. The authors hypothesize that this method can be used to distinguish between genetic and environmental effects. However, no data are presented that have been analysed with this method.
The presented data only show rough characteristics of a potential study population. So, I think this paper is very well suited for some kind of “methodology” section, but not so much for an “original article” section in BMC Medicine.

Are there differences in the environment in the pre-implantation stage between children born from genetically related and unrelated parents? I guess in this stage the environment in homologues IVF is very different from that in embryo donation. This would have a very large effect on the interpretation of future results.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

On page 4, the association between the Dutch famine and several cardiovascular risk factors could also be mentioned.

Discretionary Revisions (which the author can choose to ignore)

Which journal?: Not appropriate for BMC Medicine: an article whose findings are important to those with closely related interests and more suited to BMC Medical Research Methodology

What next?: Offer publication in BMC Medical Research Methodology after minor essential revisions

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests