

Author's response to reviews

Title: Genomic imprinting and assisted reproduction

Authors:

Ariane Paoloni-Giacobino (apgiacob@pitt.edu)
John RICHARD Chaillet (chaillet@pitt.edu)

Version: 4 **Date:** 12 October 2004

Author's response to reviews:

Dear Dr Kulier,

Please find enclosed the description of the changes made to our manuscript "Genomic imprinting and assisted reproduction" as requested by the 2 reviewers, Dr Polychronakos and Dr de Rycke. We thank the reviewers for their very helpful comments, which we believe have improved our manuscript.

As requested by Dr Polychronakos, we provided a more precise definition of imprinting.

Based on the suggestions of Dr De Rycke, we made the following changes:

All minor changes.

Major changes

- Section "Epigenetics and DNA methylation"

The first paragraph was rewritten and a more precise definition of Epigenetics was provided.

- Section "Imprinting"

We rewrote part of this paragraph and emphasized the link between differential methylation and differential expression

- Section "Imprinting in development"

We add sentences to clarify the 2 waves of reprogramming. We emphasized the notion of imprinting maintenance, and distinguished reprogramming in primordial germ cells versus in preimplantation embryos.

-Section "Cases of defective imprinting in ART conceptions"

We made clearer the notion of a possible interference between ART and imprint maintenance. We gave more information about the different syndromes.

We emphasized that the ART-AS cases reported are notable because of their epigenetic etiologies and because epigenetic causes of AS are generally rare.

-Section "Why might ART be harmful for the imprints"

We detailed the imprinted region analysed by Manning et al.

We included Kerjean's work in the discussion

We rewrote the description of the work of Shi and Haaf

We referred to imprint maintenance and not to imprint establishment in paragraph 4.

Figure 1

We suppressed preimplantation genetic diagnosis because this was not mentioned and discussed in the paper.

Thanking you for considering our revised manuscript for publication in Reproductive Health,
Sincerley,