

# Review of: "Bioethical Assessment of Research with Humanoid or Humanized Biological Entities with Uncertain Moral Status"

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Potential competing interests: No potential competing interests to declare.

The review Bioethical Assessment of Research with Humanoid or Humanized Biological Entities with Uncertain Moral Status explore and important point of this important research field. The narrative is well organize and tend to show the possible options and point of views of the topic. This article, with some minor revisions and a revision from a native English speaker (especially in the conclusion it is possible to see sentence not really written in English correct way) has the green light for the publication.

- The abstract need to be re-written in some part it is a cop and paste from the introduction.
- In the method of production I suggest to explain in the beginning why large animals such as pigs are use as animal model, instead the authors give the information in a couple of paragraphs below.
- Please add a reference to this sentence :” n another study in 2017, different types of human iPSCs (hiPSCs), obtained through the use of different in vitro culture methods, were tested to study their potential chimeric contribution in pigs and cattle pre-implantation blastocysts. “
- Please check all references à (Hu et al. 2020, eaaz0298)
- If this sentence is copy and paste from the article it should be quotedà We really do not know whether it is truly possible to generate a chimera whose resemblance to a human being could make it subject to a moral status equivalent to ours or at least superior to that of other non-human creatures, because currently the efficiency of the chimeric contribution of human cells to the animal embryo is extremely low (Wu et al. 2017a, 10487)
- In the beginning of the Transgenesis it is reported the definition of GMO the authors should report the definition of EU and USA instead of Fundacion Espagnol para la Ciencia y la Tecnologia)
- In the end of the chapter of the Hybridization the authors should expand their conclusions if it is possible
- In the end of the chapter of the Production of cybrids the authors should report their opinion on it
- Clonetes the authors should report the EU and USA definition of it.
- This section, need more description about the embryos size and the definition of Inner cell mass and trophectoderma :” the blastocyst is an embryo of some 60-200 cells, which is essentially composed of the inner cell mass and other structures that will give rise to the placenta and extra-embryonic tissues.
- The reviewer suggest to replace the verb use in this sentence àThe blastocyst produced can (COULD) be used for two different purposes: reproductive or therapeutic.

- In the following parts the authors should report the limitation of the method, because they are one of the reason why the technology was/is not applied to humans: "Successful reproductive cloning, i.e. the birth of cloned individuals, has already been achieved in the animal field, with the birth of the first mammal clone, Dolly the sheep, in 1997. This has never been accomplished in humans, because of both ethical and legal difficulties, since human reproductive cloning is not legal anywhere in the world".
- In the bioethical assessment the authors should mention the cloning a person does not means have the same person ( maybe genetically): Character, personality, life experience and etc....--> *a Clone of Maradona will not be a soccer genius for sure.....*
- Please expand the method of production of the embryods
- The authors mentioned several times the iPSC cell, it could be nice to have a chapter on it with description and limitation of this method.

I wish the best to this review it was really nice and instructive.