

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.

Remarks on the paper by Lucia Gomez-Tatay and Julia Tudela

Bioethical assessment of research with humanoid or humanized biological entities with uncertain moral status

It is an excellent general review which taught me a lot. I have a few minor comments to make:

- 1. Some parts of the text are off-topic because they deal with techniques that are carried out only in animals, for instance insertion of a somatic nucleus into an enucleated gamete nucleus. This was done initially in the ewe Dolly and was the first successful experiment of cloning.
- 2. The authors have left aside the problem of patents. In principle, experimental results leading to living human beings are not patentable (see the decision of the Court of Justice of the European Communities of December 18, 2014). On the contrary, techniques leading to non-viable biological entities are patentable.
- 3. Given the diversity of techniques and their complexity, it would be appropriate to provide one table listing the techniques and indicating those that do not pose any moral problems, such as the creation of chimeras limited to a single organ for transplantation or the introduction of a gene into the genome of an insect to synthesize a vaccine or an hormone, as opposed to those that pose problems concerning the moral status of the entity obtained, such as embryoids.
- 4. Insist on the fact that bioethics laws in many countries, including France, are increasingly permissive, with the only limit being that "any embryo that has been the subject of research may not be implanted in a uterus and must be removed 14 days after fertilization". (French bioethics law of August 2021, 2)

In conclusion, congratulations for this review