



Law Research Briefing November 2024

The Moral and Legal Status of Human Neural Organoids

Dr Josh Jowitt

- ◆ Human neural organoids are clusters of brain cells grown from stem cells that are used in medical research, either as standalone entities in a petri dish or grafted into an animal host.
- ◆ Dr Jowitt has argued that legal problems emerge where society does not give legal effect to moral claims. A good example here is how the law sees pets as property, which does not fit with how many people see pets as part of the family. The law seems to have gone wrong here and we should learn from this when thinking about how to regulate neural organoids in research.
- ◆ A key benefit of using neural organoids in research is that we might reduce the number of animals needed in research facilities. This reduction is a good thing because research animals are sentient – they can feel pain, and there is consensus that they should only be experimented on where there is no alternative. But if neural organoids attain sentience, we risk re-creating the problem we want to avoid: research on things that can experience pain, something we agree we should avoid.
- ◆ The best way to avoid this problem is to future proof the law and take seriously the potential that organoid sentience might one day be achieved.
- ◆ The legal status of animals and what this means for researchers is a topic of much controversy and causes real legal problems today, so explicitly addressing the issue in the regulation the legal status of organoids would prevent the same uncertainty arising.
- ◆ We should ask whether initiatives designed to address and reduce harms to animals caused by research, like the 3Rs (replacement; reduction; refinement), ought to be put in place now for neural organoids that might develop sentience in future.
- ◆ Judges in multiple jurisdictions also tell us they are not the best people to resolve problems arising from legal status, as they lack both technical expertise and the legitimate authority to make these calls. If we can see this may be a problem in future, regulation now would mean that judges do not have to deal with it later.
- ◆ Josh's work on moral and legal status is also applicable to other emerging medical technologies, in addition to legal issues raised by rights of nature; animal use; and artificial intelligence.



Josh is a legal theorist whose research forms part of the contemporary secular natural law tradition.

His current research considers how the interests nonhuman entities are protected in law. He has written about this on both the general level of legal personhood and the extent to which jurisdictions have discretion to recognise this status, and with regards to specific rights. Although the majority of his work has been done in relation to nonhuman animals and cerebral organoids, he is also interested in how these problems relate to other emerging medical technologies and artificial intelligence.



Joshua.Jowitt@newcastle.ac.uk



[@drjoshdoeslaw.bsky.social](https://twitter.com/drjoshdoeslaw)



<https://www.ncl.ac.uk/law/people/profile/joshuajowitt.html>



Jowitt, J. 'Agency, morality and the legal status of human cerebral organoids' (2023) 12 (2) Molecular Psychology DOI: <https://doi.org/10.12688/molpsychol.17531.1>

Jowitt, J. On the legal status of human cerebral organoids: Lessons from animal law' (2023) Cambridge Quarterly of Healthcare Ethics DOI: <https://doi.org/10.1017/S0963180122000858>