

# Questioning the 14-day rule for embryo research

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19 November 2021

Dr John B Appleby  
Lecturer in Medical Ethics  
Lancaster University

# Outline

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- Background of the 14-day rule
- Arguments against extending the 14-day rule
- Reasons for extending the rule from 14 to 28 days
  - Benefits to research on stem cell-derived gametes and gene editing
  - Benefit to research on 'synthetic' embryos and organoids
- Ethics, policy and governance
- Conclusion

# Background of the 14-day rule

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- 1978 – world's first IVF baby is born – Louise Brown
- 1979 – US Department of Health, Education and Welfare publish a report proposing the 14<sup>th</sup> day as a possible regulatory limit for the development of embryos in-vitro
- 1982 – 'Warnock Committee' in UK resulted in 14-day limit to embryo research in UK law (i.e. Human Fertilisation and Embryology Act 1990)
- Countries ranging from Belgium, UK, USA and others have used the '14-day rule', albeit with differing formulations in policy and practice.
- However, there has been increasing debate about the need to remove and/or extend the 14-day rule in order to potentially accommodate advances in science in a safe way

# Arguments against extending the 14-day rule

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- Is it a moral limit?
- Is the individuation of the embryo a good reason?
- Is the possibility of pain and suffering a good reason?
- Is the removal of the rule the beginning of a slippery slope?

## Reasons for extending the rule from 14 to 28 days

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### **Benefits to research on stem cell-derived gametes and gene editing**

- Benefits to stem cell-derived gametes (aka. artificial gametes, synthetic gametes, in-vitro derived gametes)
- Benefits to gene editing

## Reasons for extending the rule from 14 to 28 days

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### **Benefit to research on ‘synthetic’ embryos and organoids**

- Benefit to synthetic embryo research
  - Are they safe?
  - What are their capabilities?
- Benefit to organoid research
  - Contributes to an ecosystem of new emerging ARTs (assisted reproductive technologies)
  - Important for studying the development of different tissue models together

# Ethics, policy and governance

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- Is the 14-day rule fit for purpose?
- There is a need to extend the rule to 28 days
- No compelling moral reasons not to extend
- Many reasons for maintaining 14-day rule are based on misunderstanding of the rule's purpose or the associated science
- The safety and progress of valuable science should be our aim
  - Rules are of no value if they are not fit for purpose

# Thank you

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Questions?

Dr John Appleby  
(email: [j.Appleby@lancaster.ac.uk](mailto:j.Appleby@lancaster.ac.uk))  
Lancaster Medical School  
Lancaster University