

## Overview of report

# Emerging biotechnologies: technology, choice and the public good

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Biotechnologies are significant in many aspects of life, from food and energy production to medicine, industry, and economic development. At global and local levels, many societies are committed to pursuing advances in biotechnology, often with high expectations about the impacts that such technologies will have for future wellbeing.

The emergence of biotechnologies is a complex process, influenced by a number of competing values, interests, drivers and constraints which change over time. The uncertainty, ambiguity and transformative potential of emerging biotechnologies make it difficult to predict their outcomes or impact in the early stages of research. It is therefore difficult to find a rational basis on which to commit to particular pathways of biotechnology development, particularly when doing so may be at the expense of other technological or social solutions. How, then, should a society determine the conditions through which to foster socially and ethically responsible innovation in biotechnology?

The Nuffield Council on Bioethics has published a report that sets out a 'public ethics' approach to addressing this question as it arises in a number of contexts that shape the emergence of biotechnologies - research, policy, regulation and business. A number of recommendations are made to guide policy and practice with the aim of maximising socially beneficial and democratically accountable governance of emerging biotechnologies. Recommendations include:

- There should be a clearly defined, written and published Governmental research policy against which public research policies (e.g. those of Government departments and funding bodies) can be assessed
- Consideration should be given to bringing Government research policy and funding bodies under a senior minister free from departmental responsibilities
- When framing science policy through societal challenges, a 'public ethics' approach should be taken to avoid overemphasis on technological rather than social solutions to problems with substantial social dimensions
- Biotechnology policy should include consideration of diverse bodies of evidence rather than privileging a single, quantitative frame of evaluation (such as economic costs and benefits)
- Commitments to particular biotechnology pathways should be evaluated not only in terms of their anticipated impacts but also by comparison to possible alternative pathways
- Public systems for the allocation of research funding should avoid encouraging researchers to overstep the bounds of their competence when assessing the wider impacts of their research
- Consideration should be given to state interventions in the market for new biotechnologies to secure the social benefits of innovation through direct reward for socially valued innovations

**To access the full report and for more information, please see:**  
[www.nuffieldbioethics.org/emerging-biotechnologies](http://www.nuffieldbioethics.org/emerging-biotechnologies)

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