

Synthetic Biology: Addressing Social And Ethical Challenges

ScienceDaily (June 8, 2008) — The report of an independent review of social and ethical challenges associated with research into, and the application of, synthetic biology, is published today (9 June). The report, commissioned by the Biotechnology and Biological Sciences Research Council's (BBSRC) Bioscience for Society Strategy Panel, is part of its programme to ensure that BBSRC adequately addresses issues raised by this rapidly emerging area of science and technology. Embargoed copies of the report are available upon request (see contact details below).

Synthetic biology seeks to apply the principles of engineering to biological systems and processes. Scientists believe that it may lead to new applications, such as new energy production systems, medical therapies, biological computers and innovative ways to clean up hazardous waste. In common with other modern technologies, it is potentially controversial because it raises issues of ownership, misuse, unintended consequences, and accidental release.

The report, 'Synthetic Biology: social and ethical challenges', has been written by Andrew Balmer and Paul Martin of the Institute for Science and Society, University of Nottingham, a leading research centre working on the impact of new technology. It reviews what synthetic biology is, where it has come from, and where it is going, as well as making recommendations to research funders and the scientific community about how social and ethical issues should be addressed. These include:

- The need for scientists to engage with the public early in the development of synthetic biology to ensure that research does not get ahead of public attitudes.
- Synthetic biology must not be over-hyped by its supporters and critics should not exaggerate the risks it poses.
- Reviewing current regulations and guidelines to ensure that an appropriate governance framework is in place before most synthetic biology applications are introduced.

BBSRC, with advice from its Bioscience for Society Strategy Panel, is considering the recommendations of the report and will use its conclusions to inform its future policy in this area.

"Synthetic biology is in the early stages of development in the UK, and it is an appropriate time to address issues of public interest and concern," said Professor Nigel Brown, BBSRC Director of Science and Technology, "BBSRC already requires its grantholders to address ethical and other social issues, but this report will help us to focus on those concerns associated with synthetic biology."

BBSRC is already working with its sister Research Councils on ethical and regulatory issues that might arise from synthetic biology research. BBSRC is working closely with the Engineering and Physical Sciences Research Council and the Royal Society on how to take forward public dialogue and engagement on the science of synthetic biology, and with the Economic and Social Research Council and the Arts and Humanities Research Council on wider societal issues.

Adapted from materials provided by [Biotechnology and Biological Sciences Research Council](#), via [EurekAlert!](#), a service of AAAS.

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Biotechnology and Biological Sciences Research Council (2008, June 8). Synthetic Biology: Addressing Social And Ethical Challenges. *ScienceDaily*. Retrieved March 23, 2009, from

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