Genetic engineering, synthetic biology poised to boost photosynthesis and carbon capture

In a feature article published in the open access journal *eLife*, an international team of experts led by Dr Bonnie Wintle and Dr Christian R. Boehm from the Centre for the Study of Existential Risk at the University of Cambridge, capture perspectives of industry, innovators, scholars, and the security community in the UK and US on what they view as the major emerging issues in the field.

The report is intended as a summary and launching point for policy makers across a range of sectors to further explore those issues that may be relevant to them.

Among the issues highlighted by the report as being most relevant over the next five years are:

**Artificial photosynthesis and carbon capture for producing biofuels**

If technical hurdles can be overcome, such developments might contribute to the future adoption of carbon capture systems, and provide sustainable sources of commodity chemicals and fuel.

**Enhanced photosynthesis for agricultural productivity**

Synthetic biology may hold the key to increasing yields on currently farmed land – and hence helping address food security – by enhancing photosynthesis and reducing pre-harvest losses, as well as reducing post-harvest and post-consumer waste.

[Editor’s note: Read the full report]

Read full, original post: Report highlights opportunities and risks associated with synthetic biology and bioengineering