

2016-19:

Countering Synthetic Biology for Defence Applications

There are scenarios where novel biological agents may emerge and cause disease in a population. This call is interested in exploring ways to detect whether a biological agent has been modified deliberately or emerged through natural means. The methods developed could include (i) biological characterisation, (ii) next generation sequencing and (iii) bioinformatics to develop a solution to distinguish between deliberately modified versus naturally evolved organisms.

Examples include (but not limited to): Biologically engineered organisms, where the DNA may be fabricated synthetically and propagated; organisms where the DNA was edited by genome editing tools.