

GM-Free Australia Alliance: Media release: Friday, 19th August 2016

Biohacking: amateur risk takers tinker with life

US biohacker Ellen Jorgensen is touring (<https://sydneyscience.com.au/event/biohacking-why-should-we-care/>) the country to encourage members of the public to genetically modify microbes. The GM Free Australia Alliance is calling for a ban on the genetic engineering of any living thing outside contained and certified laboratory facilities.

Louise Sales from Friends of the Earth's Emerging Tech Project says: "biohacking generally means genetically modifying a bacteria, yeast, plant or animal to change its function or physical characteristics. While tinkering with some microbes now appears to be legal in Australia, the development of new GM techniques such as CRISPR (1) have seriously upped the stakes of such experimentation, posing big potential risks to human health and the environment."

"Workers in commercial biotechnology labs have already suffered serious health impacts from exposure to GM microbes, (2) including an Agriculture Department scientist. She spent a month in a coma after being infected by the *E. coli* bacteria with which her colleagues were experimenting. Allowing people with no formal biological training to experiment with new GM techniques is alarming."

Earlier this year the US Director of National Intelligence, James Clapper added gene-editing techniques such as CRISPR to a list of threats posed by: "weapons of mass destruction and proliferation" in the annual worldwide threat assessment report of the U.S. intelligence community. "Given the broad distribution, low cost, and accelerated pace of development of this dual-use technology, its deliberate or unintentional misuse might lead to far-reaching economic and national security implications," the report concluded. (3)

Fran Murrell from MADGE says: "Australian genetic engineers unintentionally turned a mild mouse pox into a virus that killed every mouse it infected. (4) The mouse pox experiment was done in a professional lab and the researchers realised they had created a potential disaster and security threat. If the mutant organism had been made by a biohacker at home who just flushed the experiment down the sink, we may already have had a bio-disaster in Australia."

Bob Phelps from Gene Ethics says: "the Office of the Gene Technology Regulator (OGTR) is still undecided whether it will regulate new GM techniques such as CRISPR, though DIY CRISPR kits are available online now for just \$130. New GM techniques such as CRISPR are quite clearly gene technology and pose serious risks to the environment and human health if untrained risk takers use them. The OGTR must ban the use of these new GM techniques outside contained and certified laboratory facilities."

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