



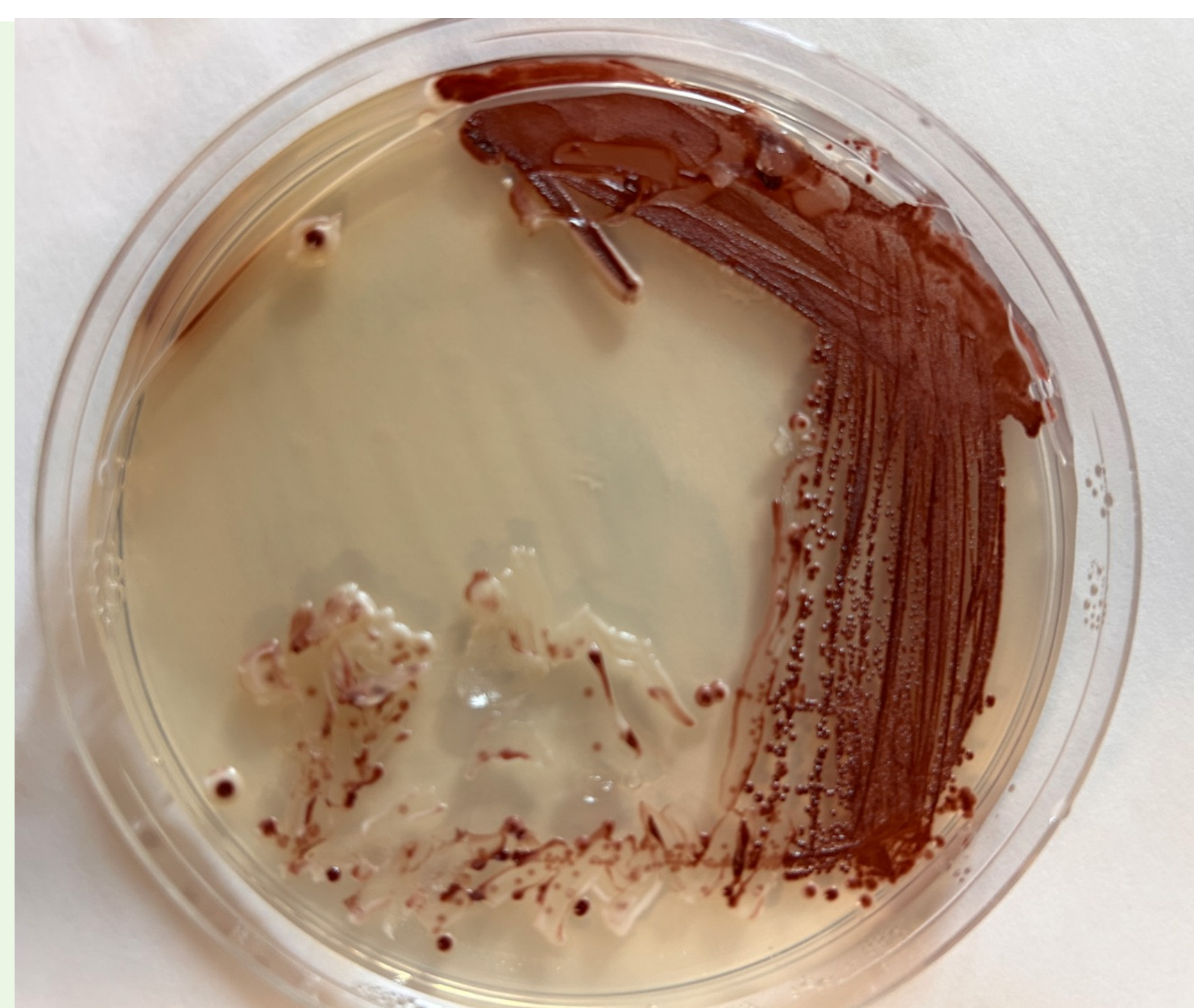
# Newstead Wood School

University of Bath, Milner Centre  
for Evolution

## Rising to the challenge: can yeast evolve acid tolerance?

### What is the implication of this research?

Yeast (*Metschnikowia pulcherrima*) can produce an oil which is an alternative to palm oil. To be sustainable, yeast is fed waste, but this leads to the formation of acids which inhibit yeast growth. This research may identify strains which have evolved a higher tolerance to acid and can continue to grow on waste matter despite acid formation.



### What techniques have we used to answer this question?

We used Adaptive Laboratory Evolution (ALE), to speed up the process of evolution by exposing the yeast to incremental increases in the concentration of the acid as a selection pressure and then selecting the yeast that survive to expose them to an increased acid concentration.