

Great grandmothers' drinking habits responsible for alcoholism? Not so fast

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

The Daily Mail recently ran [an article](#) about how alcohol abuse could harm future generations, via the (exciting-sounding) mechanism of trans-generational epigenetics. This is an emotive topic, combining a commonplace habit (drinking beer and wine) with a scary outcome (harming your children, grandchildren and future generations) and adding a twist of science for gravitas. It's not surprising that this research has been handed a megaphone by the mainstream press – but does the science stack up?

To start with, the research was carried out in rats, as multi-generational experiments on humans are both grossly unethical and logistically extremely hard. This crucial bit of information is missing from both the Daily Mail headline and the [paper's title](#).

Secondly, the big effects of alcohol consumption were mainly seen on the rats' children and grandchildren – the effects on their great grandchildren were smaller. That is really important, because if there's no effect on great grandchildren, it's probably not due to epigenetics.

Drinking large amounts of alcohol (for a rat) whilst pregnant would be expected to have an effect on the children and even the grandchildren. This is because the eggs of female mammals are made early on in foetal development, whilst a daughter is developing in the womb. So if that cell (the egg) also gives rise to a daughter, she will have directly experienced exposures that occurred during her maternal grandmother's pregnancy.

Read full, original post: [Rats! Maybe our great-grandmothers aren't responsible for alcoholism after all](#)