

Lab-grown fats may be key ingredient in diets of the future

“Lab-grown fat.” It sounds like a nightmare for marketing teams, but for scientists, it’s a key ingredient for the future of food.

Fats play a critical role in our enjoyment of food: think juicy burgers and chips, steaks and schnitzels, butter and cream.

But can you replicate that experience while avoiding animal products?

That’s the challenge [Australian National University, or] ANU science graduate Ruth Purcell was working to solve in her role as a synthetic biology scientist at Nourish Ingredients, a cellular agriculture start-up based out of the ANU [Research School of Chemistry](#).

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Yeast is commonly used in the production of wine, beer and bread. If you feed yeast the right kind of sugars or starches it produces alcohols and carbon dioxide as by-products through the process of fermentation.

It’s also easy to genetically manipulate, enabling scientists to engineer yeast strains that produce different by-products.

“You can throw all kinds of genes at yeast – a lot of them will just happily take up these gene fragments and incorporate it into their own genome,” says Ruth.

At Nourish Ingredients, yeast is engineered to produce fat molecules that are biologically identical to their animal-based counterparts, resulting in much better textures and aromas for alternative-protein foods.

[**This is an excerpt. Read the original post here.**](#)