

‘We can’t make dinosaurs come to life – yet.’ How far can synthetic biology turn science fiction into fact?

A team of Los Alamos scientists are developing “cell-free systems.” They take the guts of the cells and use the machinery within the cells to biologically mimic traditional cells. These synthetic cells make it possible to control the development of molecules with specific purposes in mind without the unpredictable problems associated with actual cell growth. Thus, one molecule is designed to help produce a vaccine, whereas another helps create pollutant-eating bacteria.

To help fabricate cheaper and more stable molecules, scientists use biosensors, which exploit biological elements to detect certain chemicals. They also use protein design advancements to design new or evolve existing enzymes to perform a specific purpose or behavior. Both technologies have enabled scientists to create cheaper, high-volume, and more stable molecules, which will be a boon to bioproduct manufacturers. Manufacturers thus will be in a much stronger position to create pure and high-yield products.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other ‘disruptive’ innovations. Subscribe to our newsletter.

[SIGN UP](#)

Scientists cannot make dinosaurs come to life yet — and maybe that’s a good thing, considering how Jurassic Park ended. However, they have used synthetic biology to produce new types of molecules. They then honed the technology to form the building blocks of cell-free, high-volume materials like nylon plastic, which can be used to make products like fiber cables, films, car parts, electrical equipment, and flooring.

[Read the original post](#)