

Using robots for the 'donkey work' of genetic research

In the basement of Imperial College sits the London DNA Foundry.

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This foundry is, however, determinedly modern. Liquid is indeed being moved around and poured. But it is in minuscule quantities, and it is not metal. Instead, it is an aqueous suspension of the genetic codes of life.

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Similar biofoundries are being set up around the world, from the Broad Institute in Cambridge, Massachusetts, via Silicon Valley, to the National University of Singapore. All offer ways of centralising the donkey work of genetic-engineering research....

London DNA Foundry's operations room is filled with boxy devices, each designed to do one particular operation, such as pipetting, repeatedly and quickly. A robotic arm shuttles small plastic dishes between the machines...Using this arrangement, the foundry can mix, in the precise concentrations required, 150,000 samples of DNA in a morning.

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True to its name, the foundry is set up to build and test DNA plasmids only. Some other biofoundries, however, offer a wider range of services.

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[T]he process of designing new synthetic lifeforms [could] be scaled up from the bespoke boutique business it is now to something more like a global industry. That day is not yet here. But if there is demand, then biofoundries will surely play their part in the next phase of the Industrial Revolution.

Read full, original post: [Robotic labs for high-speed genetic research are on the rise](#)