



ACM NEWS

Computer invents new scientific theory without human help for the first time

By International Business Times

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For the first time, a computer has come up with a new scientific theory without direct human help.

Credit: Max Delbrück Center

PLOS.

"It's not just statistics or number-crunching," Levin told [Popular Mechanics](#). "The invention of models to explain what nature is doing is the most creative thing scientists do. This is the heart and soul of the scientific enterprise. None of us could have come up with this model; we (as a field) have failed to do so after over a century of effort."

One of biology's biggest mysteries - how a sliced up flatworm can regenerate into new organisms - has been solved independently by a computer. The discovery marks the first time that a computer has come up with a new scientific theory without direct human help.

Computer scientists from the University of Maryland programmed a computer to randomly predict how a worm's genes formed a regulatory network capable of regeneration, before evaluating these predictions through simulation.

After three days of continuously predicting, simulating and evaluating, the computer was able to come up with a core genetic network that explained how the worm's regeneration took place.

The study by Daniel Lobo and Michael Levin, [Inferring Regulatory Networks from Experimental Morphological Phenotypes](#), was published on Thursday (4 June) in the journal

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