What is the meaning of life? Artificial intelligence is trying to find out

It took humans 134 years to discover Norn cells. Last summer, computers in California discovered them on their own in just six weeks.

The discovery came about when researchers at Stanford programmed the computers to teach themselves biology.

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The software is one of several new A.I.-powered programs, known as foundation models, that are setting their sights on the fundamentals of biology. The models are not simply tidying up the information that biologists are collecting. They are making discoveries about how genes work and how cells develop.

As the models scale up, with ever more laboratory data and computing power, scientists predict that they will start making more profound discoveries. They may reveal secrets about cancer and other diseases. They may figure out recipes for turning one kind of cell into another.

While some skeptics think the models are going to hit a wall, more optimistic scientists believe that foundation models will even tackle the biggest biological question of them all: What separates life from nonlife?