

Artificial Life?

By Joseph Tkach

There was a time when Christians could say with some confidence: 'Scientists will never create life'. Well, they can't say that with quite the same confidence now.

In 2010 it was announced that a team of scientists succeeded in creating life. In a landmark experiment they created the world's first synthetic life form in the laboratory. This controversial feat occupied 20 scientists for more than ten years at an estimated cost of US\$40m and was described by one researcher as 'a defining moment in biology'.

Quite obviously, this experiment was performed with a remarkable amount of work by a highly skilled team of quantum and computational chemists, protein engineers, biochemists, and molecular biologists.

It is important to understand that these scientists have not created life from nothing. Nor have they claimed to. What they have done is to remodel an existing life form to generate a new one. Another way of looking at it would be like a team of highly trained engineers taking parts from other existing engines to build a brand new working engine. But let's not underestimate what these scientists have achieved.

The researchers pieced together enzymes from about one hundred proteins of known structure, essentially mixing and matching protein regions to produce enzyme mosaics. They planned and performed well-thought-out design strategies in order to prepare artificial DNA molecules that were carefully manipulated by highly skilled chemists.

The ingenuity of this scientific team was evident throughout the process. Their efforts are of huge theological and philosophical significance. Let me quickly explain why!

Their work provides evidence that if life is to undergo any significant transformation at the biochemical level, intelligent agents must be directly involved. Their work was based upon decades of accumulated knowledge, brilliant ingenuity, and strategic planning toward their planned goals in order to design new, synthetic metabolic pathways and add to the genetic code. To put it another way, they made evolution 'happen'.

As you probably know, some scientists who espouse an atheist agenda would argue that life could originate and develop through natural processes, with no need for an intelligent creator. But clearly, this experiment did not reinforce that argument. It was not an undirected process. Neither was it a lucky coincidence or blind luck. It required precise methods and procedures intelligently thought out and expertly executed. These scientists have shown that modifying even the simplest life form needs the involvement of an intelligent agent directing the process.

So, far from showing that life does not need a Creator, this experiment actually reinforces the conviction of a need for a Creator's involvement



in the origin and development of life. This experiment won't put an end to the 'Creation versus Evolution' debate. That controversy can never be determined by the data collected by scientific experiment. Those results must be interpreted on the basis of philosophical or theological assumptions established on some other grounds. And of course, little intelligent discussion can take place while one side is trying to knock the other out of the ring.

But in the meanwhile, we are coming to understand more and more about the beautiful and intricate processes that are involved with the phenomenon we call life.

Both science and religion should approach the questions of the development of life with humility. We still have much to learn, and the more that we do learn about life, the question should not be whether or not a Creator was involved, but rather, was there *any* part of this wonderful process that did *not* need the involvement of a Creator?

This is a transcript of the weekly 'Speaking of Life' radio programme by Joseph Tkach, president of Grace Communion International. For more information visit www.gci.org.