

Quest for a Creatorless Origin of Life - 19

It has been admitted by those seeking the spontaneous origin of life, that RNA could not have occurred by any series of haphazard or aimless chemical events. Some of these scientists, having suggested that there had to be a simpler kind of genetic molecule at the beginning, launched some new research to find a molecule which they thought could have been randomly produced and would be stable enough to be incorporated into the organism without breaking down first.

An early suggestion was TNA - threose nucleic acid, a simpler molecule than RNA, and more stable also. One of the building blocks of TNA is a four-carbon sugar, threose, which does not occur naturally, and must be produced by the application of a chemist's know-how - whereas the five-carbon ribose in RNA is a naturally occurring sugar. If threose was so important to begin with, why doesn't it exist now?

No research has actually demonstrated how TNA might have occurred spontaneously. All we have is the hopeful suggestion that it could have. Others have stated directly that there is no obvious way for this molecule to have emerged by self-organization.

Another possible chemical route was suggested through a commonly occurring family of organic chemicals called PAH = polycyclic aromatic hydrocarbons. These occur in coal and tar deposits, but have also been detected in the light coming from galaxies with what is interpreted as recent star formation. From this it was concluded that the PAHs would have been abundant in the ancient earth, and could have provided a stable backbone for a genetic polymer - a chain molecule that would act like RNA.

A series of experiments were proposed which could confirm this idea. Sixteen years have passed since this suggestion, but tests in the lab have given no proof. An article in Wikipedia, "PAH World Hypothesis" can go no further than stating that PAHs were "possible starting materials for the formation of life."

Once again, it must be observed that when a chemical process is correctly understood, it will be possible to demonstrate it in the lab, and this has not happened with the origin of life.

Natural Selection - The Merriam-Webster dictionary defines natural selection as "a natural process that results in the survival and reproductive success of individuals or groups best adjusted to their environment and leads to the perpetuation of genetic qualities best suited to that particular environment."

Those who are seeking an answer to how life could have begun spontaneously - apart from a Creator - have an additional role for natural selection. They believe part of the process that led to the origin of life was natural selection of molecules, which was a key driver in the emergence of complexity from the simpler naturally occurring chemistry of the earth.

This belief assumes that after a process of possibly hundreds of millions of years, there existed a primordial soup of chemicals which contained sugars, bases, amino acids, etc. Some undefined conditions then caused molecules to make copies of themselves, resulting in a growing concentration of these molecules. Eventual variations in some of the molecules would have caused, they believe, differing groups of them to begin competing for the same resources - an early manifestation of Darwin's idea of a fight for survival in evolving organisms.