Quest for a Creatorless Origin of Life - 9

The material involved in the maintenance and metabolic processes in living organisms is made up of complex combinations of atoms into units called biomolecules. Origins-of-life researchers assume that simple biomolecules were spontaneously generated directly from the non-living chemistry of the earth.

This was, they believe, then followed by more spontaneous chemical reactions among those biomolecules, out of which, they say, life emerged without the intervention of a personal Creator. This is based on the belief that the oceans of the earth four billion years ago "must have become a dilute soup of life's building blocks." In 1953 Harold Urey designed a tabletop experiment, which his student Stanley Miller performed.

The design was to simulate the conditions which were believed at the time to exist on earth four billion years ago. A flask of water represented the ocean. This was connected from above by glass tubing to a larger flask which contained what was believed to be a simulation of the ancient atmosphere: a mixture of methane, ammonia and hydrogen. The water flask was warmed to promote evaporation into water vapour. The gas-filled flask had two electrodes which were made to spark, simulating lightning strikes.

After only a couple of days the water had taken on some colour, and black residue was forming in the gas flask. Analysis revealed the production of the simplest of the life-chemicals, called amino acids, which is glycine.

A repeat of the experiment, run at a higher temperature for a full week, produced several more different kinds of amino acids, organic molecules. Similar experiments followed which produced increasing varieties of chemicals. Eventually all the chemical building blocks of life were formed in the lab.

But serious problems soon cropped up. At the time of the Miller-Urey experiment, Urey, a Nobel laureate chemist, had made his best estimate of earth's ancient atmosphere composition to be methane, ammonia and hydrogen. But in the next decade new calculations had been made from tests on "ancient" rocks, which indicated an early mix of nitrogen and carbon dioxide.

Experiments with a similar arrangement of apparatus were performed with a mix of these two gases. Being much less reactive than the original mix of gases, these two gases produced practically nothing of use in the search for the spontaneous generation of life. And so the evidence from geological science, solidly against any significant amounts of ammonia or methane in the ancient atmosphere, placed the original results in serious doubt.

It was also pointed out that the biochemicals produced in the original Miller-Urey experiments were more parallel with the little blocks of interlocking plastic in a package of Lego. The molecules which were produced in the experiment were a long way from reaching the size of the much larger, multi-atom molecules which are combined to make the components of a living organism.

The Miller-Urey experiment did nothing to explain or even suggest how those basic chemical building blocks could have been assembled in the required order and pattern, unassisted by the manipulation of an intelligent designer.