

Darwin believed “simple life” began in a “warm little pond, with all sorts of ammonia and phosphoric salts, light, heat, electricity, etc”. Evolutionists say amino acids in the primordial soup floated and randomly bumped into one another gradually forming proteins and also other complex molecules including nucleic acids, fatty acids and sugars. Then, with no forethought or direction, chemicals came together in just the right amounts to form a membrane that encased all of the ingredients required for a self-replicating cell. And there you have it! Life arises from non-living matter! Really?

First, no one has ever found anything on earth with the nitrogen residue that would have been present in “primordial soup”. Second, today we know there is no such thing as “simple life”. All life is exceedingly complex.

**The Chicken and the Egg.** The simplest theorized reproducing organism would require, among other things, numerous proteins, many of which are molecular machines, and a way to code, store, read and process the information needed to manufacture the proteins. In addition, the first organism would need to be able to accurately copy the information during cell replication. DNA stores biological information, but that information can't be read without decoding machinery. [Like a pdf file cannot be copied without a special program.] The instructions to build this highly complex decoding machinery are stored on the DNA. Furthermore, most of these processes use energy supplied by ATP produced by the nano-motor ATP synthase, which itself is a highly complex machine made of many proteins. So DNA has its own tiny generator for a power supply. However the “generator”, the ATP synthase motor can't be produced without instructions in the DNA, which must be read by the protein decoding machinery using ATP! This is impossible. All three of them (the instructions, machines and energy) are needed from the start, just like a computer must have programs and a power supply. Without all three it does not work at all.

**Amino Acids.** The building blocks of proteins are amino acids. When amino acids are prepared in the lab they occur equally in left-handed and right-handed forms. All living organisms use only 20 “proteinogenic” left-handed amino acids in the synthesis of proteins. Evolutionary scientists have no explanation for how early life could have filtered out the right-handed forms of amino acids and in addition, the non-natural amino acids. Many experiments, like the famous Miller-Urey experiment, have attempted to produce the basic building blocks of proteins and DNA: amino acids and nucleotides, respectively. Typically, they used a “reducing” atmosphere (ammonia, hydrogen, water, methane but no oxygen). Although they were able to produce some amino acids, the experiments have the following issues:

1. Scientists no longer believe this is the correct mixture for the early earth's atmosphere. Iron oxides in early rocks, suggest oxygen was present. Oxygen, methane and sparks make explosions, not amino acids. The absence of methane in early clays suggests methane was not present in abundance.
2. These experiments only gave very low yields of amino acids.
3. The experiments did not produce all the proteinogenic amino acids (those occurring in proteins) necessary for life.

4. Other non-natural amino acids, carboxylic acids and lots of tar were formed. These side products would inhibit the formation of useful proteins.
5. The amino acids formed were both left- and right-handed amino acids. The right handed amino acids would prevent the proper 3D structure of the protein machine and therefore the protein would be useless.

**Peptide/Protein formation.** Evolutionists say that over millions of years amino acids hooked together in just the right order to form proteins. But that can't happen. Amino acids will not naturally link together in water to form proteins; rather, proteins left in water will break apart in a process known as hydrolysis. Long ages is the opposite of what is needed for proteins to form. The longer it takes, the less likely it is to happen.

Living cells use a specialized protein to produce the right kind of “harnessed” energy to form the peptide bonds to link amino acids together. All forms of natural energy (lightning, heat from volcanoes, sunlight) proposed by evolutionists destroy more bonds than they create and create additional, unwanted side products. Imagine this illustration: A car cannot be driven without gasoline, but pouring a gallon of gas on the car and lighting a match will not work. There must be a fully functioning engine with a carburetor or fuel injection system to get the exact amount of fuel and air to each cylinder at exactly the right time. In the same way, living cells require precise equipment and instructions to harness energy.

**Probabilities of Protein formation.** Chemical evolutionary theory postulates that a random process created proteins over millions of years. Assuming that the acids did not break apart in water, what is the probability that only one small protein of the specific needed order of amino acids can be formed by random chance? The odds against that happening by chance for one small protein of 150 amino acids is 1 chance in 10 to the 164<sup>th</sup> power. To put that in perspective, the odds of pulling one labeled grain of sand out of a pile of sand the size of the observable universe is 1 chance in 10 to the 96<sup>th</sup> power. (This also assumes you have only the 20 needed amino acids and they are all in the left-handed form. Otherwise if you use all the random amino acids created in Miller-Urey experiments and in both left and right handed forms, the odds are ~ 1 chance in 10 to the 288<sup>th</sup>.)

The standard evolutionary answer to that problem is “given enough time, anything can happen”. The improbable becomes possible, and actually inevitable. That idea is wishful thinking but it is not based on science.

To reiterate, mathematical laws of probability say that for one small **protein** of only 150 amino acids to form by chance the probability is one in 10 to the 164<sup>th</sup> power. That calculation has nothing to do with belief. It is pure math. So could it have happened? No. In all the 4.6 billion years of earth's supposed history there would have been 10 to the 58<sup>th</sup> *failed attempts* and none successful. That doesn't mean much to us, so picture this: If **an amoeba** were to cross the entire universe (that's more than 500 billion trillion miles) at the speed of **1 foot per year**, on each trip carrying one atom (there are 10 to the 80<sup>th</sup> atoms in the universe) the amoeba would be able to transport the entire universe **56 million times** before one protein was formed by chance.

Even if one correct protein could form, would we have life? No! The simplest living cell we know of requires more than 300 proteins, lipids, including special fatty acids, nucleic acids, complex sugars, DNA and RNA, all brought into the same micro-environment at the same time. Also, the proteins must be folded into molecular machines that work together to enable life. Some have calculated the odds of one functioning cell coming together by random processes as 1 chance in 10 to the power of 340,000,000. That is 1 chance in 1 with 340,000,000 zeros after it! That is mathematically impossible!

*"Nobody knows how a mixture of lifeless chemicals spontaneously organized themselves into the first living cell."* Paul Davies, *New Scientist*, **179**(2403):32, 2003.  
*"To get beyond this prebiotic stage, which is probably universal, may be far more difficult than is popularly imagined. ... The fact is that despite decades of experimentation, with accompanying shouts of 'breakthrough' or 'almost there,' we are still paddling on the edges of an ocean of ignorance."* Simon Conway Morris (professor of evolutionary paleobiology at Cambridge University) *The New York Times*, 15 August 1999.

*"Most chemists believe, as I do, that life emerged spontaneously from mixtures of molecules in the prebiotic earth. How? I have no idea".* George Whitesides, chemist, Harvard University.

That is why Francis Crick, who received the Nobel Prize for being the first to understand the double helix structure of DNA said *"An honest man, armed with all the knowledge available to us now, could only state that in some sense, the origin of life appears at the moment to be almost a miracle, so many are the conditions which would have had to have been satisfied to get it going."* Crick also said *"Biologists must constantly keep in mind that what they see was not designed, but rather evolved"*. Richard Dawkins also said *"Biology is the study of complicated things that give the appearance of having been designed for a purpose."*

In summary, *biochemistry* is very different from *abiotic* (non-living) chemistry. Chemistry outside the cell, such as that proposed in the "prebiotic soup" is always random and results in a messy mixture of random products, while cellular biochemistry is a precise and highly organized process that always results in the pure intended product. Life could not exist without it being this way. The evolutionary explanation of the formation of biomolecules and the cell is inconsistent with what every biochemist knows.

Recognizing that the old explanation of life beginning in a warm pond by chance is not credible, Crick said he believed in "directed panspermia" – that it came from outer space. Remember, life can't form in water anywhere, on earth or any another planet.

**For next week:** Both DNA and computers are information storage and retrieval systems. How does information get into a computer, and then what does it take to access and make that information usable. What does it take for computers to talk to one another? What is your guess about the role of computers at the Toyota plant? Make a list of all that is required to produce cars at Toyota and think about how many of those are also requirements for living organisms.

