## 28. How does evolution make new genes?

Normally evolutionists talk about mutations of existing genes which help to adapt organisms to new environments and conditions. This is a relatively well understood process and is observed in nature.

A different situation arises when a completely new body part or function must be implemented. In such cases we are not talking about modification of existing genes but making completely new genes. For example, we know that during the Cambrian explosion thousands of new genes were generated. What is then the process of making a new gene?

Evolutionists propose various mechanisms which could result in new genes. There are two main methods of making new genes: gene duplications and using existing DNA material from junk DNA or viruses.

The first step in the process of gene duplication is the generation of a spare copy of an existing gene. Normally during the cell reproduction process a new copy of a gene is made from the existing DNA. However during this process an error could cause two copies of the same gene being made. In this case an additional copy could be used to make a new gene. However it is most likely that such a copy would be very different from the required gene. It could have a wrong number and a completely wrong sequence of nucleotides.

For example, the duplicated gene could look like: ATGCTTGCATAATTCCCGGTAGCATTCGG, where A,T,G,C represent the four basic nucleotides. In reality an average gene has about 1000 such letters.

Let us say that we need a gene with this sequence: ATCCTTGCGTAATTCGCGGTTGCATCCTG. To make this new sequence 6 letters (in bold) in the old gene must be changed. The only way to do this is by the process of random mutations. The probability of having six specific mutations is extremely low and no experimental data supports this hypothesis. In the real world a gene having a sequence of 1000 letters would need at least 100 letters to be changed. These letters have to be changed at exactly the right locations. So far nobody has shown any evidence that this is possible.

Instead of duplicating a gene, a DNA sequence could be obtained from the "junk" DNA. "Junk" DNA is a part of the genome which is not coding any proteins. We call this "junk" because we still don't understand its function. We could assume that "somebody" would search DNA chains and select the right length DNA sequence. This sequence would be subjected to many mutations the same way as the duplicated gene.

The latest research shows that mutations of "junk" DNA could be responsible for such diseases as autism, cancer and heart attacks. This means that "junk" DNA plays an important role and

should not be removed, therefore it cannot be used for building new genes.

There is a possibility of using viruses as a material for new genes. The advantage of this method would be that the existing cell's DNA will not be needed. Viruses mutate extremely fast making it possible to generate many different copies which could be used as a new gene.

All these methods have to face the same problem. How to modify the original copy of DNA by blind mutations. Examples quoted in literature concentrate on simple modifications such as in the case of human haemoglobin where a few points would have to be changed. There is no evidence that any of these methods could generate completely new genes which are unrelated to the functions of their ancestors.