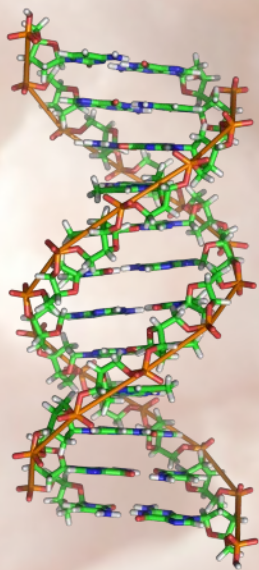
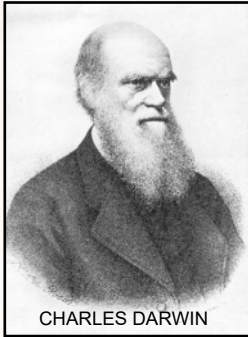


MUTATION MELTDOWN



DESTROYING DNA



CHARLES DARWIN

The original theory of evolution, as written by Charles Darwin and published in 1859, suggested that natural selection alone could act on variations in a population to produce new species.

It was later realised that natural selection could never give rise to major evolutionary change. This is because natural population diversity will only allow change up to a point, just like breeding dogs, which remain dogs. A dog cannot be bred into a cat!

The answer was to propose that MUTATIONS could supply the necessary variation which then would be "chosen" by natural selection to develop a population. This two part method *assumed* that mutations could produce genuine positive changes in an organism, which cumulatively would allow complex organs to evolve.

The term "mutation" was first used by Hugo de Vries (1848-1935), a Dutch botanist and geneticist. He had no knowledge of modern biochemistry so could not appreciate that the mutations he proposed are in fact DNA changes in the nucleus of eukaryotic cells.

The true nature of mutations only became apparent after the now famous Francis Crick and James Watson found the DNA double helix structure in 1953. The DNA code was slowly deciphered after this leading to the understanding of protein coding and gene regulation.



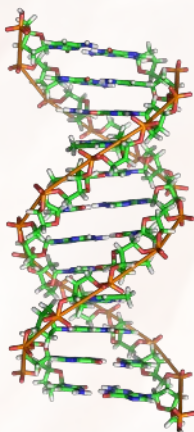
HUGO DE VRIES



CRICK AND WATSON

It is now realised by biochemists that the entire structure and biochemical function of an organism is coded into the DNA. This coding is inherited when organisms reproduce. With simple cell division (mitosis), the entire genome is exactly duplicated. In sexual reproduction (meiosis) the progeny has a mixture of parental characteristics, depending on how the male and female genetic information is mixed when the reproductive cells combine. Nevertheless, no new genetic information is created in any reproductive process, unless the DNA of the cells involved is changed in some way prior to this process.

Reproductive DNA can be changed by *gene regulation* where genes are switched on and off (often due to methylation), or more permanent changes are produced by various types of random or induced mutation. Cells contain advanced molecular machinery which checks and repairs DNA, so mutations are very rare but do happen. If DNA was not repaired, cells would rapidly die.



DNA is a long ladder molecule wound into a double helix. Each rung in the ladder consists of two molecules called *bases*.

A - adenine C - cytosine G - guanine T - thymine.

A	C	G	T	A	C	G	C	A	A	T	C	C	G	T	A	C
T	G	C	A	A	T	G	C	G	T	T	A	G	G	C	A	T

These bases always combine together as shown with AT and CG *base pairs*. Each rung in the ladder is one letter of the DNA code. Base pair triplets code for the amino acids needed to make protein molecules in the cell. The remaining 90% of the DNA is used in regulation and control etc. This was confirmed by the ENCODE project which mapped out the entire human genome.

The ENCODE project further revealed that DNA can be “read” in different ways, i.e. it is a multi-layer code. One base pair or a sequence of pairs can be part of two or more separate coding sequences. The trick is in the code reading.

WHAT IS A MUTATION?

This is a change in the DNA ladder. A single base pair could be changed, or whole sections of DNA could be added, subtracted or changed.

THE TRUTH ABOUT MUTATIONS

The human genome is massive, containing about 3 billion base pairs. Estimates indicate that there are about 100 mutations that accumulate per person in each generation. The vast majority of mutations are fairly neutral, have a very small effect on the individual and cannot easily be differentiated by any selection process. If a bad mutation arises, the individual will have what is termed a genetic disease, which can be

due to a discrete mutation in a single base pair in the DNA of a single gene, or a gross chromosome abnormality involving the addition or subtraction of an entire chromosome or set of chromosomes. No new beneficial mutations have been observed in the human genome. No enhanced function has been noted that is not simply due to normal population variation or selection of pre-existing advantageous traits.

MUTATION ACCUMULATION

It is fair to ask, “what is the effect of mutations slowly building up in the human genome?”. The answer is complicated and also alarming. The biochemistry in living organisms is extremely complex. Humans have layers of biochemical mechanisms which copy, control, regulate and also compensate

for errors. Thus our genome can in the short term tolerate a mutation load. Just like taking bits off a car - it can still keep going. However, eventually the car will stop, permanently. This is the eventual fate of the human genome. The same applies to all advanced organisms. So what is the solution to this problem?



MUTATION MELTDOWN

There is no solution to the mutation problem. If humans were subject to a breeding/eugenics programme then some mutations could be eliminated. The problem is that while some were removed many others would still accumulate. This is a no-win situation. The human race is slowly progressing to mutation meltdown. This of course applies equally to all higher mammals and crucially to any proposed ape-like ancestors of man. Evolutionists who propose that man evolved from ape-like creatures over a time span of 6 million years neglect to factor in the deleterious mutation load that could not be eliminated by natural selection. Any proposed beneficial mutations could not be individually selected as they would be associated with thousands of bad ones. Thus modern genetics has disproved the theory of evolution.

THE FINAL SOLUTION?

Some people may place their hope in science and technology. Perhaps gene editing could rescue us? The CRISPR technology can edit genes and some base pairs. Base pairs can be changed $A:T \leftrightarrow C:G$ when a precise point mutation fault (causing a disease) is identified but the human genome is so complex that major DNA editing at base pair level is very problematic. This would presuppose that biochemists have a very clear idea what pristine unmutated DNA should look like. Therefore, we still have no scientific solution to our mutation meltdown problem.

WHERE DOES GOD FIT INTO ALL THIS?

The Bible records that God created life (Genesis ch.1). If the human genome is degrading, are we a flawed design? The Bible also records that when God had created everything, he said that it was good. So what happened? The first humans disobeyed God and therefore he gave the human race finite lives.

When Jesus Christ came to Earth he offered mankind eternal life - after the death of our physical body. There *is* hope for us which science cannot offer. We must ask God to forgive our wrongdoing and turn to him. We can then be assured that our spirit will live on to be with God after our bodies die.

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Pamphlet 427 February 2022 by David Shires BSc

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