

microscopic life on other planets, but we should not be dogmatic on this.

## SUMMARY

The media speculations about 'Life on Mars' are premature, to say the least. Some researchers in the field believe the evidence is actually against life. Some have suggested that the claim is a publicity stunt by NASA to gain more Government funding. And at most, the evidence is vaguely suggestive of microbial life. If so, there is still no reason that this could not have had an Earth origin.

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19. McKay *et al.*, Ref. 2.
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21. See P. W. Atkins, 1982. **Physical Chemistry**, 2nd edition, Oxford University Press, New York, pp. 1002-1006.
22. **Reuters News Media**, London, 8 August 1996.  
Hoyle said he hoped the NASA claims could be verified: 'I'd be very pleased if it was true' he told the **Guardian** newspaper.
23. Ref. 4.
24. This possibility was discussed by the astrophysicist Paul Davies and suggested by creationists well before the NASA announcement — see 'Planets can swap rocks' (Focus item). **Creation Ex Nihilo**, 18(3), 1996, p. 7.
25. Actually, it is questionable whether a parasite like *Mycoplasma* is really self-reproducing. Many evolutionists and creationists argue that it arose by degeneration from a more advanced bacterium which was truly self-reproducing. If so, the odds are stacked even more against evolutionists.
26. Morrow, L., 1996. Viewpoint: Mars as divine creation. *Time*, 19 August, p. 83.
27. Sagan's thoroughly atheistic world view is critiqued by J. W. Robbins, 1995. The Sagan of science. *Apologia*, 4(3): 19-29. H. G. Wells (1866-1846) was a Fabian Socialist who co-authored the three volume work **The Science of Life** with the noted atheist and evolutionist Sir Julian Huxley in 1929-1930. See article: 'Wells, H(erbert) G(eorge)', **Encyclopaedia Britannica**, 15th edition, 1992, Vol. 12, pp. 573-574.

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## Junk-making' Viruses Neutralise an Evolutionary Argument

Most of the DNA in our cells does not seem to consist of genes coding for protein manufacture. It has been unkindly labelled 'junk' DNA by evolutionists who believed it was just a useless leftover from our evolutionary history.

However, over the last few years, more and more evidence is accumulating which suggests various types of function for this alleged 'junk'. It has been shown that some acts to prevent the ends of chromosomes from fraying.

Mutations in some of the 'junk' seem to increase the likelihood of certain cancers, which strongly suggests that they are not 'useless'

stretches of DNA. A part of an 'intron' (the sections interspersed between coding portions of a gene, which are then snipped out of the messenger RNA before assembly of the protein) has recently been shown to contain a regulatory switch for the gene which is defective in cystic fibrosis.<sup>1</sup>

Others have pointed out that the nature of the sequences in the 'junk' is similar to that of the surrounding genes in a way which suggests an error-checking function. All in all, there is now general agreement that we have only just begun to uncover the true significance of this non-coding DNA. Accordingly, the 'vestigial genes' argument for evolution is not

looking healthy at all.

However, so-called 'pseudo-genes' are another matter. These are stretches of DNA which have no known function, but so closely resemble real, existing genes that they look to all intents and purposes like cars in a junkyard — once useful, now wrecked.

Pseudo-genes have been used as 'proof of common ancestry of humans and chimps' as follows. Certain pseudo-genes are found in both humans and chimps. This, they argue, is powerful evidence that the genes were deactivated in some common ancestor, before the two lines diverged. It has been said that this is an even stronger argument than useful, coding DNA similarities. Genetic closeness between chimp and man is easy for the creationist to explain on the basis of common design features

for similar situations. But why, they argue, should a Creator put the same useless pseudo-genes in the same two creatures?

However, it should first be noted that there is no consistent pattern of pseudo-genes in humans, chimps and gorillas from which it could be argued that humans are closer to chimps than they are to gorillas. Some pseudo-genes are shared by humans and chimps, not by gorillas, while others are shared by humans and gorillas, but not chimps.

Thus there is no logical evolutionary picture here — if it is accepted that the human-chimp sharing is due to common ancestry, then the human-gorilla-but-not-chimp sharing has to be explained away as coincidental, or the other way around.

So if these pseudo-genes do not represent common ancestry, how might they have arisen? There have been all sorts of deleterious changes since the Fall. Of interest is the fact that retrovirus infection has been recently observed, in embryonic mouse cells, to turn an ordinary gene into a pseudo-gene.<sup>2</sup> (The most famous member of the retrovirus family is HIV — human immunodeficiency virus.)

So let us look at three arbitrary (normal, functioning) individually created genes shared by humans,

gorillas and chimps of which there are known pseudo-genes — call the genes A, B and C.

Call A' the pseudo-gene derived from A, and so on. A population which descended from an individual with a retrovirus-caused pseudo-gene, but still with an active version of the normal gene, would then be represented as having A in addition to A'.

Assume retrovirus activity was common in the early years after the Flood in particular, affecting the early ancestral lines of many types of creatures alive today

It is not difficult to envisage a more or less random situation in which the results shown in Figure 1 eventuate.

Looking at the pseudo-gene B', an evolutionist would conclude that humans were closer to chimps than gorillas. The opposite would be the case for C. A' would be argued as showing that the pseudo-gene arose in a common ancestor to all three. Whereas in reality it was just a random pattern of retrovirus infection.

It is as yet unknown whether, and if so why, some genes are more susceptible to becoming pseudo-genes

by such a process than others. The same gene might be vulnerable to pseudo-gene formation many times in the one population. Furthermore, just because retroviral involvement has been observed does not mean it is the only possible mechanism of pseudo-gene formation. Mutational error is always a factor in a fallen world.

In addition, at least some of the 'pseudo-genes' may not properly be such at all, and may turn out to have a function like so many of their 'junkyard' cousins have. Their function may require them to be very similar to 'normal' genes.

	Human	Chimp	Gorilla
Early populations	A B C	A B C	A B C
↓	↓	↓	↓
Modern populations	AA'B B' C C'	AA'B B' C	AA' B C C'

Figure 1. Random generation of pseudo-genes by retrovirus activity.

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once thought, free of vertebrates (these were believed not to have evolved yet). They are fish-like scales known as *Anatolepis*.<sup>1</sup> Some have argued that the scales could belong to the arthropod phylum, which includes insects and crustaceans.

However, microscopic studies reveal that the scales contain dentine, which is only known in vertebrates. The researchers feel this is conclusive evidence that these are fish scales.

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Fish-like scales from *Anatolepis*.

Now small fossils found in 1976