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## **SCIENCE, GENESIS AND CREATION (2) THE ORIGIN OF LIFE**

And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters. Ge 1:2

### **AND THE EARTH WAS WITHOUT FORM:**

The earth was without form. That means shapeless. It is like a sculptor who wants to make a sculpture, he starts with a big piece of rock that has no shape. Then he starts to use his tools to shape it into the final product. God did exactly that, He started with the raw material and gradually shaped it into the beautiful Earth we have now, cutting rivers and streams and forming mountains and hills.

God did that using natural forces He had created for that purpose. These natural forces included volcanoes, earthquakes, seismic eruptions, tectonics and floods. We will talk about these things later on in more detail.

Someone may ask this question: Does God need to use these natural forces in shaping His creation? Couldn't God have created the earth the way He wanted instantly? The answer to the first question is no!

God does not need to use these natural forces, He choses to! This is the way God desires to do things. Let me give you an example: When God wanted to divide the Red Sea in the time of Moses, what does the Bible tell us?

And Moses stretched out his hand over the sea; and the LORD caused the sea to go back *by a strong east wind all that night*, and made the sea dry land, and the waters were divided. Ex 14:21

Notice, that, when Moses stretched out his hand, the sea was not instantly parted but that God caused *a strong wind to blow all that night* before the sea was parted. That means that God, even when He performs supernatural deeds, uses naturally occurring phenomena that He had created, like strong winds, and He gives them enough time to produce the desired action. One may ask, couldn't God had just ordered the sea to part? The answer is yes, for He is omnipotent, for in Mark we are told: "And he arose, and rebuked the wind, and said unto the sea, Peace, be still. And the wind ceased, and there was a great calm." So, why didn't God do that when He created the earth? Because God likes to do things in good order, "For God is not the author of confusion, but of peace." (1 Co14:33)

Job 28:9-10 tells us: "He putteth forth his hand upon the rock; he overturneth the mountains by the roots. He cutteth out rivers among the rocks." Here we have an idea about God shaping the earth which in the beginning was without form. But in Psalm 147:17-18 we are told: "He casteth forth his ice like morsels: who can stand before his cold? He sendeth out his word, and melteth them: he causeth his wind to blow, and the waters flow." Here we have aglimpse about how God performs His works: He sends ice on earth, then He melts it, and in order that floods do not happen, "*He causeth his wind to blow, and the waters flow.*"

I always believed that God works like a scientist, not like a magician! The Bible tells us so: "The LORD by **wisdom** hath founded the earth; by **understanding** hath he established the heavens. By his **knowledge** the depths are broken up, and the clouds drop down the dew." ( Pr 3:19-20) Wisdom, understanding and knowledge are tools of science, not magic.

## **AND (THE EARTH WAS) VOID:**

God looked after the fact that the earth was without form by shaping it, using His wisdom, knowledge and understanding and by utilizing the natural forces (the tools) that He had created for this purpose. The second thing that God wanted to remedy is the fact that the earth was void or empty, it did not have creatures in it. To remedy this, God decided to create living things, plants and animals, as we shall see.

God, indeed, consummated all His works in a due order; at first He paled them out, as it were, in their unformed elements, and then He arranged them in their finished beauty. For He did not all at once inundate light with the splendour of the sun, nor all at once temper darkness with the moon's assuaging ray. The heaven He did not all at once bedeck with constellations and stars, nor did He at once fill the seas with their teeming monsters. The earth itself He did not endow with its varied fruitfulness all at once; but at first He bestowed upon it being, and then He filled it, that it might not be made in vain. For thus says Isaiah: "He created it not in vain; He formed it to be inhabited." Therefore after it was made, and while awaiting its perfect state, it was "without form, and void"<sup>1</sup>

## **AND DARKNESS WAS UPON THE FACE OF THE DEEP:**

Darkness is the opposite of light, so it is quite obvious that the earth was covered with darkness because God had not created light yet. The creation of light will be God's first act of creation on the first day.

## **AND THE SPIRIT OF GOD MOVED UPON THE FACE OF THE WATERS:**

This is a very significant statement that will give us an insight into the origin of life (the title of this lecture). In the Creed, we say this regarding the Holy Spirit: "Yes we believe in the Holy Spirit, the Giver-of-Life, Who comes forth from the Father". The Holy Spirit is called the "Giver-of-Life" and rightly so. For, since the beginning, we are told that He *moved upon the face of the waters*. And, why is this? The answer is that since He is the "Giver-of-Life", He was moving upon the face of

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<sup>1</sup>Tertullian: Against Hermogenes ANF VOL III

the water planting the seeds of life. That is the origin of life according to the Bible: The Holy Spirit, the “Giver-of-Life”, creating life in the water. “Thou sendest forth Thy Spirit, they are created.” tells us Psalm 104:30.

In the very beginning, when God made the heaven and the earth, “the Spirit,” it is said, “moved upon the waters.” He Who was moving upon the waters, was He not working upon the waters? ... Recognize that He was working in that making of the world, when the prophet says: “By the word of the Lord were the heavens made, and all their strength by the spirit of His mouth.”<sup>1</sup>

### **THE LAW OF BIOGENESIS:**

In 1862, Louis Pasteur performed a series of careful experiments which disproved that organisms such as bacteria and fungi appear in nutrient rich media of their own accord.<sup>2</sup> “Spontaneous generation is a dream” (Louis Pasteur)

Pasteur's (and others) empirical results were summarized in the phrase, *Omne vivum ex vivo* Latin for “all life [is] from life”, also known as the “law of biogenesis”. They showed that life does not currently spontaneously arise in its present forms from non-life in nature.<sup>3</sup>

These findings which support the Biblical idea of God as the origin of life is as expected, opposed by atheists and especially adherents of the Theory of Evolution. Those people advocate another theory for the origin of life:

### **THE THEORY OF ABIOGENESIS:**

In the physical sciences, abiogenesis, the question of the origin of life, is the study of how life on Earth might have evolved from non-life sometime between 3.9 and 3.5 billion years ago. ... Given that the origin of life is proposed to have proceeded by

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<sup>1</sup>St. Ambrose: Concerning the Mysteries N/PNF SERIES II VOL X Chapter III

<sup>2</sup>[http://en.wikipedia.org/wiki/Origin\\_of\\_life](http://en.wikipedia.org/wiki/Origin_of_life)

<sup>3</sup><http://en.wikipedia.org/wiki/Biogenesis>

spontaneous chemical reaction, the chemistry concerned should presumably be rather robust and therefore relatively easy to repeat. The fact that it is proving very difficult to do so is a major challenge for researchers in this field, suggesting they may be focusing on the wrong locations, and on the wrong initial chemistry.<sup>1</sup>

Charles Darwin in a letter to J.D. Hooker of February 1st 1871, made the suggestion that life may have begun in a “warm little pond, with all sorts of ammonia and phosphoric salts, lights, heat, electricity, etc. present, that a protein compound was chemically formed ready to undergo still more complex changes, at the present day such matter would be instantly devoured or absorbed, which would not have been the case before living creatures were formed.” Thus, it is the presence of life itself which prevents “spontaneous generation” from occurring on Earth today.<sup>2</sup>

Although Pasteur had demonstrated that modern organisms do not generate spontaneously in nonliving nutrients, science seemed to be moving in opposing directions.<sup>3</sup> Ever since, attempts have been made to prove Darwin’s proposed theory of Abiogenesis, but as we read in Wikipedia: “As of 2007, no one has yet synthesized a ‘protocell’ using basic components which would have the necessary properties of life.”<sup>4</sup>

It is sad that the science establishment would pump millions of dollars into research to disprove what Pasteur has established by experiments in favour of proving that Darwin was right!

Please note that Pasteur based his conclusions on “careful experiments” that led him to postulate the “Law of Biogenesis”. Darwin, on the other hand, has proposed a “theory of Abiogenesis” which as of 2007 remains unproven.

Now, let us examine this “theory of Abiogenesis” and see how its promoters propose it works.

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<sup>1</sup>[http://en.wikipedia.org/wiki/Origin\\_of\\_life](http://en.wikipedia.org/wiki/Origin_of_life)

<sup>2</sup><http://en.wikipedia.org/wiki/Biogenesis>

<sup>3</sup><http://en.wikipedia.org/wiki/Abiogenesis>

<sup>4</sup>[http://en.wikipedia.org/wiki/Origin\\_of\\_life](http://en.wikipedia.org/wiki/Origin_of_life)

## **THE EVOLUTIONARY MODEL:**

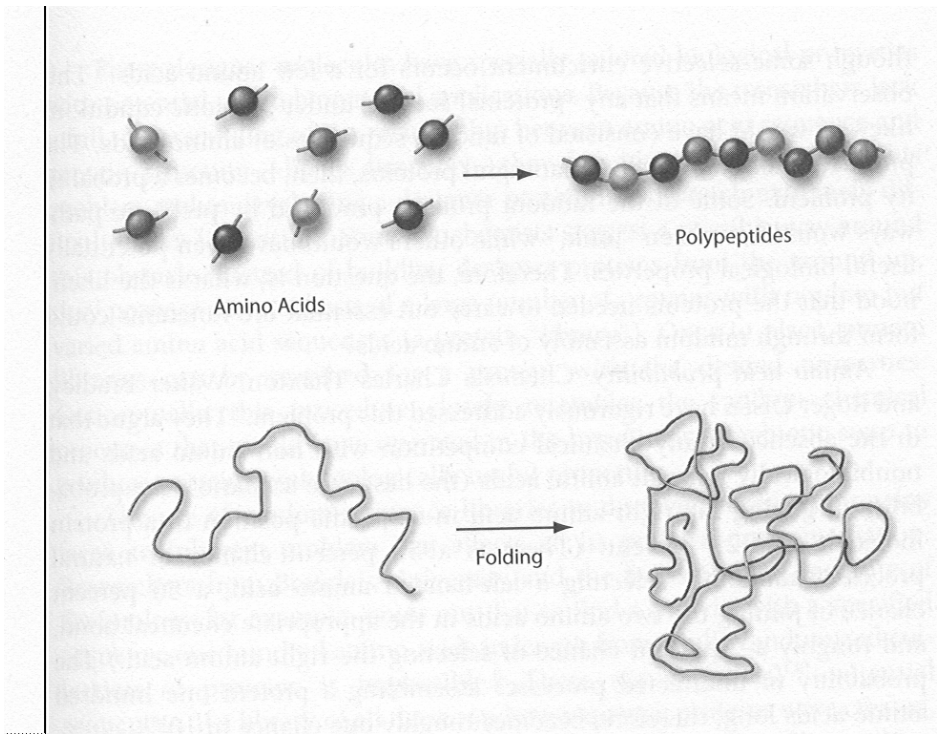
According to this theory:

1. Early Earth's atmosphere contained small amounts of prebiotic molecules like hydrogen, ammonia, carbon dioxide, methane which were formed by various high energy forces like lightening, ultra violet radiation, solar and volcanic heat, cosmic rays etc.
2. These, over vast periods of time accumulated in the Earth's oceans to make up the "prebiotic soup" aka "primeval soup"
3. Over long periods of time, the prebiotic molecules reacted to form more complex molecules, such as amino acids, sugars, fatty acids etc...
4. These in turn functioned as building blocks for more complex molecules that eventually led to "biomolecules" (DNA, RNA, and proteins).
5. The scenario continues with the eventual production of a "self replicating molecule".
6. When enough of these were formed in the prebiotic soup, they aggregated to form "protocells".
7. Finally, these protocells yielded an organism called the Last Universal Common Ancestor (LUCA)
8. "LUCA", the root of the evolutionary tree of life then evolved to produce all plants animals and organisms.

Stages 1-3 are plausible and possible to demonstrate in laboratory experiments. After this stage we get into a road block. To turn amino acids into even the simplest protein seems to defy all human efforts. Here is why:

In order to make a protein, you have to start with different amino acids, then assemble them in a string in a particular order to form a polypeptide chain. Then the polypeptide chain has to fold in a particular way (specific for the protein) to form a 3 dimensional "biomolecule". (see chart next page)

Now, how to do that? Well, have you ever bought something from IKEA? You get some boxes containing pieces of wood but unless you have a booklet that shows you how to assemble them , you can't build a piece of furniture. So, even if we have the building blocks for the building of a protein, we need a manufacturer's manual!



## **DEOXYRIBOSENUCLEICACID (DNA)**

This is the instructional manual. It tells cells how to do everything, from making protein to reproducing themselves. It also carries the genetic code for each organism. It has information about the color of your hair and your eyes and how tall, how handsome you are going to be even before you are born.

All living things contain DNA genomes. A possible exception is a group of viruses that have RNA genomes, but viruses are not normally considered living organisms. The main role of DNA in the cell is the long-term storage of information. The genome is often compared to a set of blueprints, since it contains the instructions to construct other components of the cell, such as proteins and RNA molecules.<sup>1</sup>

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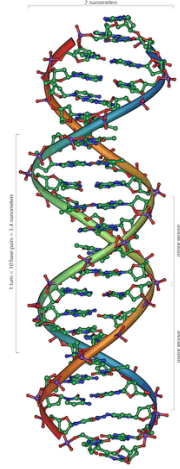
<sup>1</sup><http://en.wikipedia.org/wiki/DNA>

DNA is a long polymer made from repeating units called nucleotides. Each DNA molecule contains millions of these nucleotides that have to combine in a very particular order to make this molecule.

Even if you have the building blocks of proteins (amino acids), you still have to have the specific DNA for that protein (the instructional manual for making it). And even if you get the instructional manual, you still cannot make the protein because only the cell knows how to read the instructional manual! Now here is the dilemma:

Proteins replicate DNA, on the other hand proteins depend on DNA for their production, since it contains the information that the cell's machinery uses to synthesize proteins. It is a chicken and egg situation.

In order to make protein you need DNA and in order to have DNA you need protein!



My substance was not hid from thee, when I was made in secret  
.... Thine eyes did see my substance, yet being unperfect; and in  
thy book all my members were written, which ...were fashioned,  
when as yet there was none of them. (Ps 139:15-16)

I want you to look at this verse and tell me: How did David know that even before he was created God had a book in which he described all his members, in fact all his substance? Was this verse about DNA?

Now, let us go back to the advocates of Abiogenesis. Faced with the road block referred to above, they said: "Forget about DNA! What if we had some amino acids, tossed them up in the air, hoping that by random chance they may come together in the appropriate sequence to form a protein?" Well, actually mathematicians have been busy calculating the odds.

If we assume that all carbon on earth exists in the form of amino acids and that the amino acids are allowed to chemically react at the maximum possible rate of 10<sup>12</sup>/s for one billion years, we

must still conclude that it is incredibly improbable ( $\sim 10^{-65}$ )<sup>1</sup>

This is assuming the protein has only 20 amino acids, which is the simplest protein you can get.

Even if the entire primordial earth were comprised of nothing but the 20 amino acids that are used by the cell to produce proteins, and if those amino acids reacted to produce such a protein, there would still be only one chance in  $10^{83}$ . Physicists consider any probability smaller than  $1/10^{50}$  as equivalent to impossible.

Researchers from Brandies University and the Swiss Federal Institute for Technology point out that the probability of building a more complex protein with a specified sequence of 100 amino acids by random chance is  $1/10^{130}$ <sup>2</sup>

Another biophysicist, Hubert Yockey<sup>3</sup> estimated the probability of the protein cytochrome C, which contains 110 amino acids being formed by random chemical reactions. The probability was estimated to be  $10^{-75}$  Cytochrome C is found in numerous organisms.

The number of protons and neutrons in the Universe is only  $10^{78}$ , and if one assumes that the primordial soup contained  $10^{44}$  of the relevant amino acids (the maximum possible) it would take  $10^{23}$  years at one chance per second to have a 95% chance of forming Cytochrome C. The age of the Universe is estimated at 14 Billion years, so there is not enough matter in the Universe nor time to make this possible.

### **June 26, 2000: THE HUMAN GENOME:**

On June 26, 2000, President Clinton was honouring two men who stood beside him, Craig Venter of Celera Genomics and Francis Collins chief of the Human Genome Project. They were celebrating the completion of the human genome sequence. On that occasion he said, "Today we are learning the language in which God created life"

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<sup>1</sup>Walter L Bradley and Charles B Saxton "Information and the origin of life" in *The Creation Hypothesis*, page 190

<sup>2</sup>Sean V. Taylor et al. "Searching Sequence Space for Protein Catalysts" in *Proceedings of the National Academy of Sciences*, U.S.A. 98 (2001) p. 10596-10601

<sup>3</sup>Hubert P. Yockey, *Information Theory and Molecular Biology*, 1992, p 246-257

Genomics combines genetics, biochemistry, computer science and molecular biology to find out the sequence and character of an organism's entire DNA content. The research has bearing on origins of life. Here are some findings:

The simpler the organism the shorter is the genome and the number of genes. The simplest life form requires a minimum of 1500 genes<sup>1</sup>.

Life also requires 250-350 different proteins (the bare minimum) The probability of these proteins coming together to form a cell is  $1/10^{18,750}$  -  $1/10^{26,250}$

Here we are not talking about amino acids randomly forming proteins but about proteins randomly forming cells, and the odds become astronomical.

Another biophysicist Harold Morowitz calculated the odds of E. coli randomly forming and found it  $1/10^{100\text{billion}}$  Even if all the matter in the Universe became life's building blocks and then were brought to bear on E. coli formation, being allowed to attempt combination a million times a second for the entire duration of the Universe's existence, the chance would be  $1/10^{99,999,999,916}$  That means that there is neither enough time or enough matter in the Universe to form even the simplest bacterium by undirected chemical and physical processes.

### **THE SYNERGY PROBLEM:**

The problem is more than the simultaneous occurrence of 250 different proteins. It also demands the appearance of DNA, RNA, complex carbohydrates to form the cell wall and lipids to form the cell membrane. All these molecules must come together at once and operate in an orchestrated fashion for life to be possible. Here is the problem:

The cell wall and membrane cannot be formed without proteins, RNA, and DNA and these molecules cannot achieve stability without the cell wall and membrane.

There can be no DNA and RNA without proteins and there cannot be protein without DNA and RNA.

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<sup>1</sup>Claire M. Fraser et al. "The Minimum Gene Complement of *Mycoplasma genitalium*" Science 270 (1995) pp 397-403

## **MORE PROBLEMS FOR ABIOGENESIS:**

Scientists, using Einstein's Field equation (without the Fudge Factor) calculated the Big Bang to have occurred about 14 Billion years ago. They also calculate the age of earth to be 5 billion years. The first 500 million years of the earth's existence, the earth was too hot to allow any life to exist (they call this the Hadean era from Hades). So that leaves us only with 4 billion years to develop from soup to Bacteria. Tight but still possible according to them.

However, recent investigations carried out in Greenland and South Africa looking for life's chemical remains surprised origin of life scientists. To explain: When living organisms die they leave tell tales in the form of radio isotopes that are only produced by living organisms like Carbon-12, Nitrogen-14 and Sulfur-32. The results of these investigations showed that life may have existed on the earth as early as 3.8 million years ago. Now, since the earth existed for 5 billion years (so they say), of which 500,000 years in which it was hot as Hades, that leaves 4.5 billion years. If you subtract 3.8 billion years as the earliest period in which life could have existed, you are left by 700,000 years to get from soup to Bacteria, which is impossible!

Ancient life existed at Isua [Greenland], and perhaps elsewhere on earth as early as 3.8 billion years ago ... This seems like an awfully short period of time for the first life to evolve.<sup>1</sup>

The other finding from this investigation gave origin of life scientists another surprise: Earth's first life, while morphologically simple, was biochemically complex. This serves a blow to Abiogenesis advocates, since, their model assumes that early life forms were very simple.

Commenting on these results, J. William Schopf (origin of life investigator) wrote: "No one had foreseen that the beginning of life occurred so astonishingly early." He later adds:

No one has publicly disagreed with my interpretations ... but some would prefer I were mistaken, since they (and I, too) would prefer a simple evolutionary story, one that told us these oldest

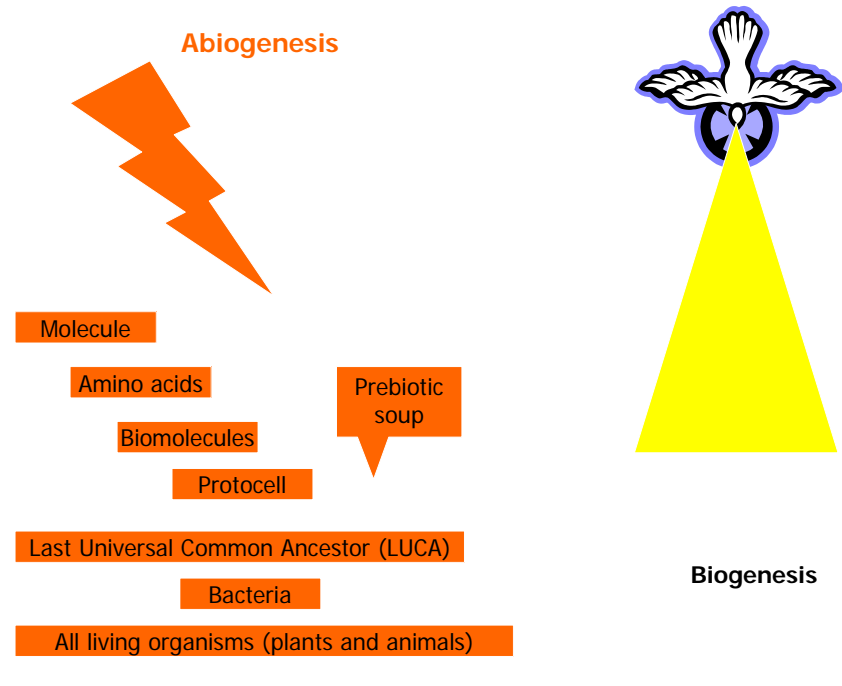
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<sup>1</sup>Peter Ward & Donald Brownlee: Rare Earth

fossil organisms were capable only of primitive ways of living and that advanced metabolic lifestyles evolved much later. But the evidence seems strong, and what one might “prefer” shouldn’t matter.<sup>1</sup>

Another unexpected discovery made recently, is that life appeared suddenly on Earth. Marine biologist John Hayes reviewed this discovery for the prestigious science magazine *Nature*. He acknowledged that life must have begun “with breathtaking rapidity.”<sup>2</sup> This goes directly against the Abiogenesis model which assumes a gradual evolving of life.

This is a diagram of the two opposing views about the origin of life: Biogenesis or the creation model in which the Holy Spirit moving on the primordial water created the first seeds of life. And the opposing view of Abiogenesis with its complicated sequence of unrealistic

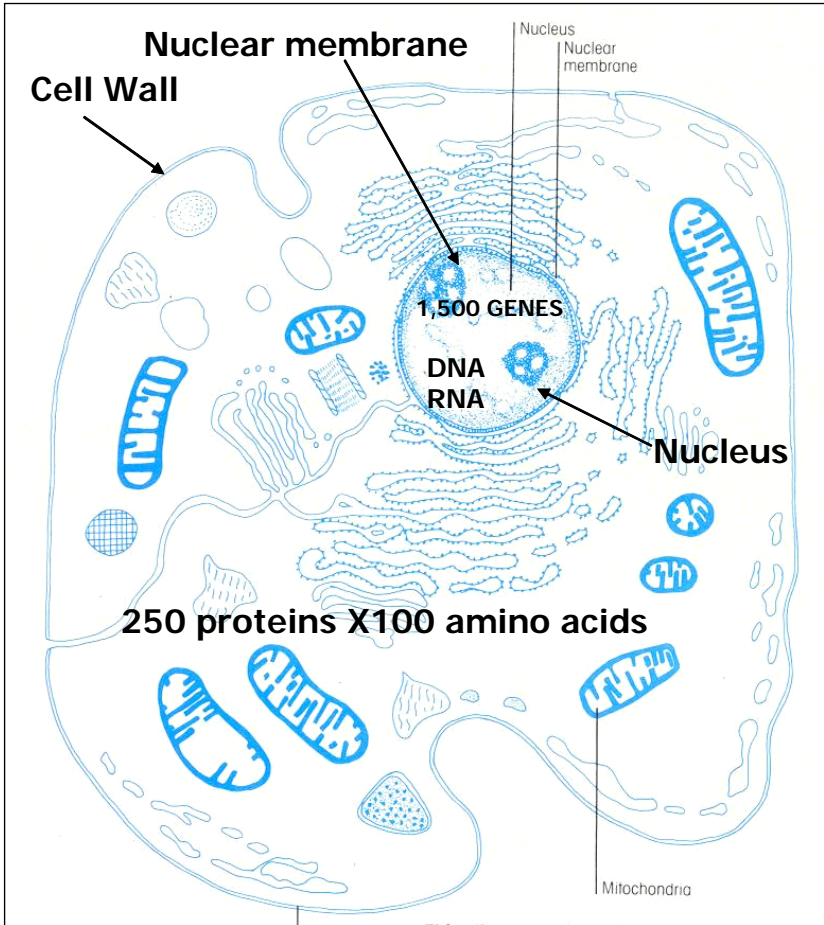


<sup>1</sup>J. William Schopf: The Cradle of Life Page 98

<sup>2</sup>John M Hayes, “The earliest memories of life on Earth” *Nature* 384 (1996) p.21

proposals, that I hope have been discredited enough in the previous pages.

Now I would like to share with you some thoughts about the Cell: a miracle of the creation:



This is a diagram of a simple primitive cell. One of God's earliest creatures. Think of it as a chemical factory. The factory is built of a minimum of 250 different proteins, each one of these is made of a minimum of 100 different amino acids. The factory is completely computerized, it has a computer called the Nucleus. The nucleus has a minimum of 1,500 Genes. Think of these as the applications that the

computer runs. You know you have applications like word processor, spread sheet and data base. Well, this computer can run 1500 of these and it doesn't freeze! The computer programs are written in 2 programming languages called DNA and RNA , like you have Basic plus and Java script. The factory produces tens of chemicals every second, complex chemicals that no human manufacturing facility can produce. It does not run on electricity or need batteries, because it uses Solar energy. It does not produce harmful emissions like human made factories, in fact the only emission it produces is Oxygen, which you and I need for our existence. It can replicate itself in minutes, that means it can clone itself. It is also self repairing, it can diagnose and treat malfunctions. It has a security system called the immune system that repels intruders.

It has a cell wall made of complicated Carbohydrates and a nuclear membrane that is made of complex fats.

All of its components are dependent on each other and this is called Synergy (see above, the problem of synergy)

According to Abiogenesis "scientists", this wonderful piece of machinery created itself from some methane, ammonia and hydrogen sulfide that were found in the ocean sometime in the not so distant past!

Best selling author Paul Davies says this in his book *The fifth Miracle* (pages 17-18):

When I set out to write this book, I was convinced that science was close to wrapping up the mystery of life's origin. ... Having spent a year or two researching the field, I am now of the opinion that there remains a huge gulf in our understanding .... This gulf in understanding is not merely ignorance about certain technical details, it is a major conceptual lacuna.

He later on adds:

Many investigators feel uneasy about stating publicly that the origin of life is a mystery, even though behind closed doors they freely admit they are baffled. There seems to be two reasons for their unease. First, they feel it opens the door to religious fundamentalists and their god-of the gaps pseudo-explanations.

Second, they worry that a frank admission of ignorance will undermine funding.

So, where do we go from here? Now that Abiogenesis has fallen out of favour, how can those scientists keep the funds for research coming? Here is their answer:

### **PANSPERMIA: LIFE FROM OUTER SPACE**

This is the in thing now among evolutionists. There are two types of Panspermia, the first one is called:

#### **UNDIRECTED PANSPERMIA:**

Simply stated: life seeds came from outer space by comets. Here is a hilarious description of this latest twist on the origin of life saga:

### **Are We All Aliens? The New Case for Panspermia<sup>1</sup>**

**By Robert Roy Britt  
Senior Science Writer**

Nestled safely inside the belly of a comet orbiting some unknown star, a microscopic alien sits dormant. Somewhere in this vast universe -- perhaps a place like Earth -- a greater destiny awaits the microbe. A place to flourish, become a nematode or a rose or a teenager. Life, after all, is tenacious and thrives on change.

Over time, gravity performs a few plausible, but not routine tricks, and the comet is ejected from its stellar orbit like a rock from a slingshot. For more than a 100 million years it slips silently across the inky vastness of interstellar space. Then gravity goes to work again. Another star tugs at the comet, pulls it in.

A few giant gaseous planets whiz by, their bulks tugging at the comet, altering its course slightly. Ahead now, growing larger, looms a gorgeous blue and brown marble. Water and land. Maybe some air.

Then with the force only the cosmos can summon, the comet slams into the third rock from a mid-sized, moderately powerful star. The alien microbe survives, emerges from its protective shell and spreads like the dickens. Thus began life on Earth, 3.8 billion years ago.

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<sup>1</sup>[http://www.space.com/searchforlife/aliens\\_all\\_001027-1.html](http://www.space.com/searchforlife/aliens_all_001027-1.html)

Or so goes one aspect of a theory called panspermia, which holds that the stuff of life is everywhere and that we humans owe our genesis and evolution to a continual rain of foreign microbes. It means, simply, that we might all be aliens.

It's an idea that has been around longer than Christianity, but which still struggles to gain strong support among most scientists.

Serious research is now going on to try to prove this. Both the newly launched Astrobiology Institute of NASA and the Origins Program are rapidly propelling panspermia to the forefront of origin of life research. Funding from NASA for these programs has quadrupled over the last 5 years.

### **DIRECTED PANSPERMIA: Life was brought to earth by aliens**

The driving force of this new theory is Nobel Laureate Sir Francis Crick. This is the guy that discovered DNA and got a Nobel prize for it. He wrote a book named: *LIFE ITSELF* in which he wrote:

A highly advanced alien species sent one or more spacecrafts to earth with the intent of peppering it with the necessary life forms (or components of it) to generate a zoo of diverse species.

This is not a joke guys. You just go on the internet and type Panspermia and you will see the Hysteria that has taken on evolution science today.

Here is what Wikipedia writes about this:<sup>1</sup>

No undisputed evidence has ever been published in a mainstream scientific journal to suggest that intelligent alien species have visited the Earth. The majority view in the scientific community seems to be an acceptance that the existence of intelligent life elsewhere in the Universe is at least highly probable, due to the sheer number of potential sites where life could take hold. However, the special theory of relativity holds that travel over the vast distances between stars would be limited to the speed of light, and so take such a long time that many scientists think it unlikely that such travel would be practical for life forms as we

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<sup>1</sup><http://en.wikipedia.org/wiki/Panspermia>

know them. Nevertheless, a small core of researchers continue to monitor the skies for signs of transmissions from other stars. The Search for Extra-Terrestrial Intelligence (SETI) project is the most popular example. Over the past century, thousands of people have reported UFO sightings in countries all over the world, but these reports have never been shown to be genuine.

Here is more from Wikipedia about this theory:(*same website*)

A meteorite originating from Mars known as ALH84001 was shown in 1996 to contain microscopic structures resembling small terrestrial microfossils. When the discovery was announced, many immediately conjectured that the fossils were the first true evidence of extraterrestrial life — making headlines around the world, and even prompting U.S. President Bill Clinton to make a formal televised announcement to mark the event. As of 2003 however, most experts agree that these are not indicative of life, but may instead be formed abiotically from organic molecules.

Of three biological experiments on the Mars lander Viking, two gave results that were initially indicative of life. However, the similar results from heated controls, how the release of indicative gas tapered off, and the lack of organic molecules in soil samples all suggest that the results were the result of an abiotic chemical reaction rather than biological metabolism. Later experiments showed that terrestrial clays could reproduce the results of the two positive Viking experiments. Despite this, some of the Viking experiments' designers remain convinced that they are diagnostic for life.

In 1962, Claus et al. announced the discovery of 'organised elements' embedded in the Orgueil meteorite. These elements were subsequently shown to be either pollens (including that of ragwort) and fungal spores (Fitch & Anders, 1963) that had contaminated the sample, or crystals of the mineral olivine.

In 2002, the discovery of glycine (the simplest amino acid) in interstellar clouds was reported. [8]. Subsequent investigation has

refuted these claims.

A separate fragment of the Orgueil meteorite (kept in a sealed glass jar since its discovery) was found in 1965 to have a seed capsule embedded in it, whilst the original glassy layer on the outside remained undisturbed. Despite great initial excitement, it was found to be that of a European rush that had been glued into the fragment and camouflaged using coal dust. The outer 'fusion layer' was in fact glue. Whilst the perpetrator of this hoax is unknown, it is thought he sought to influence the 19th century debate on spontaneous generation — rather than panspermia — by demonstrating the transformation of inorganic to biological matter.

The theory of panspermia has been explored in a number of works of science fiction, notably Jack Finney's *The Body Snatchers* (three times made into a film) and the *Dragonriders of Pern* books of Anne McCaffrey. In John Wyndham's book, *The Day of the Triffids* (also made into a film), the first person narrator, writing in historical mode, takes care to reject the theory of panspermia in favour of the conclusion that the eponymous carnivorous plants are a product of Soviet biotechnology. The book and film of *The Andromeda Strain* examines the consequences of a pathogenic extraterrestrial organism arriving on Earth.

In contrast, Stephen Baxter's *Titan* suggests the possibility of geocentric panspermia: the astronauts final dying act is to release bacteria into a Titanian lake. The theme is continued as the resultant beetle-like civilisation purposefully colonise new star systems.

Some works of science fiction advance a derivative of the theory as a rationalization for the improbable tendency of fictional extra-terrestrials to be strongly humanoid in form as well as living on earth-compatible worlds (see Class M planet) and having similar levels of technology. In a *Star Trek: The Next Generation* episode ("The Chase"), the humanoid aliens which include the

humans themselves, are results of the genetic codes spread through the Universe by the Ancient humanoids and were placed by the Ancient humanoids themselves.

The film Panspermia by computer graphics artist Karl Sims features a world of complex and diverse species created by using "artificial evolution". It has become one of the most influential works in the fields of both computer graphics and artificial life.

For the last 150 years, we have been fighting Abiogenesis, do you want to know what we will be fighting for the next 150 years?

### **EXBIOLOGY:**

BRANCH OF SCIENTIFIC ENQUIRY ABOUT THE  
POSSIBILITY OF LIFE IN THE OUTER SPACE.<sup>1</sup>

They really did it this time! They turned science fiction into science! Exbiology has now become a new "science" with departments in major universities, and soon to come to a high school science classroom near you!

NASA has a huge Exbiology program. Most origin of life research dollars are going into this bad piece of science fiction. To me, this is not science at all. It has become an alternate religion. I believe that it takes a lot more faith to believe in aliens than to believe in God. It is a new religion with a simple creed: We believe in anything except God! It is entirely up to you, either to believe that you were created by a loving caring God, Who loved you so much that He created you in His own image, or believe that you are one species of a zoo created by little green men.

Saint Paul predicted this in Romans 1:28

And even as they did not like to retain God in their knowledge, God gave them over to a reprobate mind, to do those things which are not convenient.

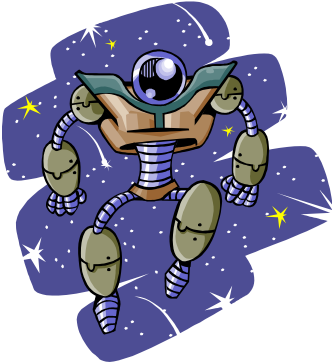
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<sup>1</sup><http://www.classteacher.com/content/curriculum/concepts/bio11.htm>

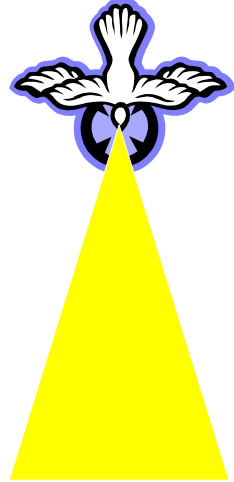
Let me paraphrase that for you:

Because they did not like God to have any place in their science, God caused their brains to malfunction, so that they do crazy things (like believing in aliens!).

*To be continued*



**Anything but God**



**Abiogenesis is dead  
Long live Exbiology**

**Biogenesis**

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