

# How Computer Science, Chemical Engineering And Molecular Engineering

Show:

## A Living God Created Life

By Timothy R. Stout (Four decades of industrial design engineering experience)  
(B.S. physics, UCLA; pastor of The Rock Baptist Church, Greenville, TX)  
timothystout@yahoo.com

### Introductory Overview

How did we get here? Scientific analysis shows us what is in a living cell and how it works. However, scientists are not engineers. They do not study how to make things, but only what exists and how it functions. Engineers make things. It appears that the following observations work against the possibility of a natural origin of life. Most biologists reject this conclusion, but this appears to be due more to a philosophical commitment to materialism than to dealing with actually observed evidence. Materialism is the philosophy that everything is explainable solely by natural processes. These problems are serious. Ignoring them for the sake of philosophical preference does not represent true science.

- 1. The failure of every tested experiment in abiogenesis to advance towards life.** Reputedly thousands of experiments have been performed testing various proposed prebiotic steps and processes. At every step any potentially useful, newly-formed chemicals are invariably overpowered by contamination from the undesired chemicals also formed. Not a single step has provided products usable in a subsequent step as produced. After sixty years of effort scientists still have not been able to demonstrate how prebiotic processes could generate simple amino acids in a form pure enough and with proper ratios to advance to the next step. The random, step-by-step mechanism of abiogenesis has been unable to move past the first and simplest step. If it cannot do successfully something this trivial, what hope is there for it to overcome extremely complex problems such as represented by these next seven observations?
- 2. Cells are information-driven machines.** Both computers and cells are information-driven machines. As such, they face common problems in their origins. Machine-control information is useless without preexisting hardware to use it. The hardware is useless without preexisting software to drive it. Both need to make a simultaneous initial appearance in working form and compatible with each other. Engineers have developed a methodology to solve this problem for computers. By contrast, biologists propose that exposing a body of chemicals to a natural energy source such as sunlight or electrical sparks will spontaneously convert the chemicals into a large reservoir of information along with the cellular hardware to read and use it. This approach has never been demonstrated to be effective.
- 3. Cells are characterized by intricate feedback control loops.** Cellular activities need to appear and to function under very specific conditions and only those conditions. This task is accomplished by intricate feedback control mechanisms. Feedback control loops are essential for both chemical manufacturing plants and living cells. Chemical engineers design elaborate flow charts in order to produce specifically desired chemicals from a broad range of possibilities. Biologists propose that shining light or applying sparks to a body of chemicals will spontaneously convert the chemicals into specific feedback control mechanisms exactly as needed by a cell. This approach has never been demonstrated to be effective.
- 4. Self-organization necessary for cellular fabrication and operation.** Cellular components (such as a mitotic spindle) typically self assemble, perform a task, and disassemble according to what a cell needs at any given instance. This is an extremely intricate process, called “self-organization.” Self-organization uses metastable bonds. These are analogous to electromagnets. They require a constant source of energy.

When energy stops, the bonds dissipate. This is what allows a cellular structure to disorganize (disassemble) as required. Inserting this behavior into the structure of proteins and nucleic acids of a cell is extremely difficult. There is no known way for unguided processes to implement this.

**5. Virchow's aphorism.** In the mid 1850s, German scientist Rudolf Virchow observed that cellular life comes only from preexisting cells. A minimal cell cannot be further divided into components which themselves can survive and replicate. If one works through the implications of this, plausibly the entire initial cell needed to make a fully functioning, completely formed initial appearance in a single step.

**6. A cell only has minutes to form, not millions of years.** Without active metabolism, cellular components begin to degrade. The "electromagnets" fall apart (not literal magnets, but metastable bonds which require a constant input of energy even as do electric magnets, as discussed). This is one of the most serious issues. How long does a person need to choke on some food before his brain undergoes irreversible damage? A million years? One year? No, it is only several minutes at the most. Lack of oxygen inhibits metabolism. Once metabolism stops then self-organized cellular structures at normal temperatures begin immediate degradation. In minutes the degradation becomes irreversible. Materialists claim that given enough time and favorable conditions, the appearance of life is inevitable. This claim is falsified by the rapid onset of degradation of cellular components when active metabolism is not present. Virchow's aphorism plausibly requires a dynamic, self-organizing cell to make a single-step initial appearance in complete, fully-functioning form. Rapid degradation limits the available time span for this to take place to not more than a few minutes at most. Abiogenesis simply cannot do this. Ignoring this for philosophical reasons does not appear to represent valid science.

**7. No mechanism for debug.** There is no known mechanism to correct errors in incipient, still non-functioning cells. Genomic replication requires full cellular functionality. This implies that the cellular information required to form and operate a cell, the extensive feedback control mechanisms, and the self-organization used extensively to perform cellular functions all needed to appear simultaneously without requiring debug. This is the exact opposite of the gradual, step-by-step progress proposed by materialists and evolutionists for the origin of life. Even if a debug mechanism were available, the maximum allowable time of only minutes to form the initial cell allows no opportunity for debug.

**8. Top-down design.** Good engineering design is "top-down." The initial goals are defined and then broken into major blocks. These are broken into sub-blocks. The process is repeated until the smallest details are defined. Then the design is ready for fabrication. This is in contrast to bottom-up design, which is random in its production. It results in inefficient designs. Interdependent relationships do not allow extensive, subsequent simplification. All life at every level gives evidence of top-down design.

Science uncovers problems such as these. It does not offer natural solutions. Worse than that, materialists stifle discussion of these issues. Stifling is serious. Major advances in science have come from studying through the implications of initially unexplained phenomena. Suppressing discussion for philosophical promotion is not valid. These issues are serious.

## Engineering Methodology and God

The engineering departments of a university provide us methodology for dealing with many of the above concerns. Engineering methodology is based on an intelligent being first designing then fabricating a product. Information technology provides a methodology to design and fabricate an information-driven machine, such as a computer. This methodology can be extended so that it also applies to a living cell. Chemical engineering provides a methodology to develop elaborate chemical feedback control loops such as would be required to operate a chemical plant. This methodology can be extended so that it also applies to a living cell. The recently formed field of nanotechnology provides a methodology for designing self-organizing molecular assemblies. This methodology can be extended so that it also applies to a living cell. In all of these cases intelligent action is required to implement engineering methodology. Each of these has specific issues which are solvable by intelligent action but not by random, gradual modification.

Computers, chemical plants, and molecular machines give extensive, observable, rational confirmation that the engineering model can be effective in overcoming the kinds of problems inherent in the various functions mentioned. In this paper the case will be made that it would take a living God to use engineering methodology to provide information systems, feedback control, self-organization, and the appearance of top-down design in a living cell.

Beyond this it would also take a living God to implement the design by constructing a living cell as designed, since natural processes cannot build objects using non-physical design specifications.

Four of the concerns listed above present problems so severe that even the engineering model cannot provide tools to resolve them: 1) no successful experiments, 2) only minutes to fabricate a cell before degradation would destroy it, 3) An organic cell must make its first appearance in working form in a single step and then it can replicate and 4) There is neither a mechanism nor time for debug. Once a rational basis has been established for the appearance of life coming from a Creator God, then these last four issues plausibly confirm this understanding. There is no competing viable explanation. The evidence is clear for anyone willing to see it.

A materialist will claim these arguments should be rejected because they are not consistent with materialism. I suggest this is backwards. Materialism should be rejected because it is not consistent with the observations of science and engineering working together. Unbiased science leads us to understand that a living God is the Creator of life, not unguided, naturally randomizing, prebiotic processes.

Do you want a good laugh? Ask any design engineer working in one of the above fields if the kinds of simple, unguided processes naturally available in a prebiotic scenario could replace him. He will laugh at the naïveté of the question; the answer should be obvious. If you were to ask the question in earnest, it would show that you do not understand the depth of the intellectual effort required to overcome the problems that these fields present. Every step is characterized by far, far too many wrong ways to do something. Before abiogenists so glibly assert that unguided prebiotic processes are inherently capable of providing for cellular information, feedback, and self-organization, perhaps they should consider the effort engineers need to go through in order to provide them. Also, remember that natural, prebiotic processes have been demonstrated to be incapable of performing perhaps the simplest step towards life—providing simple amino acids pure enough to serve as feedstock to form small, simple, isolated proteins. Abiogenesis is stuck at the starting gate of the path towards life, not even being able to take the first step successfully. Prebiotic processes consistently randomize the organization initially present in the feedstock, not increase it (this will be examined in detail, later). How are such ineffective processes going to replace an engineer in providing complex features such as information, feedback control, and self-organization necessary to create a living cell? How are they going to put all of these things together in the microscopic span of time available before cellular degradation sets in? How are they going to do this without requiring debug? The materialist policy of limiting explanations about the origin of life to materialistic processes appears to be irrational in the light of these issues.

Suppose a goal is to fabricate a specified product. By experience I know that an engineer can only design using principles and components that he is aware of and understands. If he does not know that something is possible to use in some manner to meet the goal, then he will not choose it as one of his options. If he becomes aware of a new possibility but does not understand it, he may choose to learn about it in order to use it. But, he cannot design a product or use components or design techniques he does not know about. It is important to keep this in mind when examining the extreme complexity of information, feedback control, and self-organization necessary to fabricate a living cell. This is the basis for the claim that it would take a living Creator God to implement these kinds of design issues.

The remaining issues discussed in Part 1 above—no successful experiments, all cells from cells, only minutes available for complete fabrication of an initial cell, and no means of debugging errors—represent problems so severe that even the engineering departments do not give us models for their solutions. These issues plausibly confirm that a highly intelligent, living Creator God is the source of cellular life.

A case will also be made in this paper that unbiased science is more consistent with a literal understanding of Genesis 1 than it is with materialistic/evolutionary theory. Many of the arguments presented here are new to this paper and are worthy of consideration.

**A fascinating observation.** In one sense, it is not within the scope of science to say anything one way or the other concerning the existence of a living, personal Creator God. Science is based on controlling all of the variables affecting the outcome of an experiment and then analyzing how changes to the variables affect the outcomes. In science, observed patterns honestly interpreted become principles and laws.

However, there is no experiment that can control the behavior of a Creator God. So, on the one hand, science can neither affirm nor deny His existence. Yet, on the other hand, it is philosophically possible that an extremely brilliant Creator could design a creation such that science would reasonably lead a person to understand His existence and action. The Bible actually claims this to be the case in Romans 1:20, "...For since the creation of the world His[God's] invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse...." This is also consistent with the observations and conclusions presented here. This paper presents how the creation reveals a living God to a scientifically educated audience. The evidence is clear to anyone willing to see it.

Modern science assumes materialism is sufficient to explain everything that takes place and has taken place. This tradition started with Charles Darwin, Thomas Huxley and members of the British "X Club" in the 1860s and 1870s. It has dominated scientific discussion since then. However, science historians acknowledge that materialism was not actually proven in open scientific dialogue at this time, but was only claimed to be true by its proponents. Huxley and those in his camp then used behind-the-scenes power plays to establish the materialist position while stifling discussion of any contrary evidence. This tradition still continues to this day. A detailed 18-page discussion of how materialists hijacked science in the 1860s and 1870s is found in the fourth of the five articles I authored and available free online at [www.trbap.org/5articles-long.pdf](http://www.trbap.org/5articles-long.pdf).

If the observations presented here are valid, they demonstrate that both materialism and humanism are to be rejected. This has huge implications concerning the validity of most subjects taught in a modern university. If humanism is false, so is much of the subject matter taught. Sadly, the truth of the humanistic philosophical foundations of fields like political science, history, the social sciences, and even modern English literature lies outside of the various respective fields. The messages conveyed by modern entertainment media, such as popular music, TV programs, and movies are often inappropriate. If there is no God, man's intellect is the ultimate authority for setting moral standards and priorities of nations and people. From this perspective, the arguments leading to socialism and agendas such as United Nations Agenda 2030 appear to be unanswerable. They do have a fatal flaw, though. If there is a living God and if that God has revealed specific standards and expectations for nations and for people to follow, then the arguments of humanists are without foundation and irrelevant. God's standards prevail. Man's primary effort would then need to be focused on understanding and applying His standards. This is a major issue.

If science and engineering work together to show that a living God created man, a God who has a depth of understanding far deeper than anything man can comprehend and also has the power to implement His plans and desires at will, not being bound by natural law, then the highest responsibility in the life of each person is to find this God, find what He wants, and submit to it. These are the kinds of issues pursued in the last portion of this paper, where I write as a pastor and not a lay scientist.

I suggest that this is a very short paper for its potential significance.

## **The Model of Engineering: Information Science**

Living cells are information-driven systems. So are computers. Both of them feature hardware controlled by an extensive body of information. We understand computer design. The hardware and software are completely separate entities—hardware has physical existence, such as space and mass,

whereas information is immaterial—it has no physical characteristics, although it is represented by arrangements of physical objects.

In computer design we observe that the interactive relationships between software and hardware are so intricately intertwined that they need to be fabricated according to a predefined specification. A software command needs to be issued based on how the hardware will implement it. The hardware needs to decode properly an instruction and to carry out an intended task. Each needs to be designed based on the other at each step. A software program stored on a disk sitting on the shelf of a retail store is useless. It needs to be driving computer hardware before it has value. A brand new computer without any software installed on it is useless; it simply sits there doing endless “no-op” loops, accomplishing nothing. Both hardware and software need to make their first appearance simultaneously and with at least minimal operational functionality.

The minimal functionality required for even a simple computer is still extremely complex. There needs to be a storage medium with useful information stored in it. There needs to be a means of reading a specific piece of information selected from the medium. There needs to be a means of interpreting the information read and acting properly on it. There needs to be a means of inputting new data into the computer and controlling how it is used and perhaps where it is stored. There needs to be a means of determining what output actions for the computer to take, when to perform them, and a means of performing them. This list is not at all comprehensive, but representative. All of these features need to be present and interact properly from the time of a computer’s first appearance.

Defining, fabricating, and properly connecting the gates to do these kinds of interacting tasks is a major intellectual undertaking. There is a reason natural processes observed at work in nature do not spontaneously build functioning computers. Yet, with the required intellectual effort along with technical expertise to build a resulting design, computers do get built. Provision for the possibility of functioning computers is within the scope of natural law. But, as stated earlier, a person would appear irrational who proposed that computers could appear solely by the operation of natural processes apart from the creative efforts of an intelligent being.

Since a computer requires a predefined specification in order to get the hardware and software to cooperate effectively, it appears that formation of a living cell could also require a predefined specification of information/cellular hardware relationships. Working through the requirements to accomplish this reveals that cellular specification must be designed by a being with intelligence far greater than man’s.

Analysis of genetic information and cellular hardware reveals staggering complexity, complexity dwarfing that of a computer. The Designer needed to understand how specific sequences of amino acids could be arranged to accomplish the tasks of the various proteins of a cell. He needed to understand how to make nucleic acids or their equivalent and then use them as an information storage medium. He needed to understand how to define the information to be stored in the medium and place it there. He also needed to understand how to use nucleic acids to serve as energy currency and implement other cellular functions. He had to invent a means to translate a genomic information sequence into specific proteins and nucleic acids in order to perform specific functions as part of the cell. The details of cellular metabolism needed to be predefined. This list is representative, not comprehensive. In short, the designer needed to have the intelligence to design the cell as an information-driven machine starting from basic principles of biochemistry. The most intelligent Nobel Prize winner today would find it difficult to compete with God in any of these things. This task would be particularly daunting if there were no guidelines suggesting the behaviors produced by the various arrangements of the initial, building block molecules. Beyond all of this, cellular replication also needs to be provided from the beginning. Replication is not a trivial task, yet it needs to work properly from the beginning.

Initial cellular information stored in the DNA (or RNA, or other proposed medium) must define the construction of all of the various cellular components to do the required tasks, including those listed

above. These need to function successfully enough to survive and replicate on their first appearance. Before a materialist asserts that natural processes can provide all of these features, it would be well for him to remember that so far these processes remain stuck at the starting gate, not even able to take the first, simplest step successfully. This failure has been confirmed by repeated experiments.

The above discussion only covers the design definition. The next problem is fabrication. There is no natural means for non-living processes to use and interpret a large body of information in some kind of arbitrary, intellectually-defined format. There appears to be no means for natural processes to implement the design. This leads to the most critical conclusion of all: in order to implement a specification defining cellular construction and fabrication, a designer needs to be able to work outside of natural processes to move individual atoms and molecules at will into their proper relationships. A living cell thus needs to be the handiwork of an extremely intelligent and powerful being—one who is capable of arranging specific atoms and molecules into agreement with a predefined specification. This is the definition of a personal God—a Being with extremely high intelligence, a will, and the power to work outside of the laws of nature at will. Unbiased science and engineering work together to lead us to the understanding the cellular life is the handiwork of a personal God.

## **The Model of Chemical Engineering: Feedback Control Loops**

The goal in chemical engineering is to restrict a general process having many possible outcomes so that it is limited to providing desired ones. In order to accomplish this, many process variables need to be monitored and modified to stay within predetermined values. This constitutes feedback. Likewise flow of the incoming feedstock needs to be controlled according to the instantaneous state of the processes, another task requiring feedback control. Successful operation of a chemical plant requires that the desired conditions be maintained despite changes in external factors which might interfere with maintenance of the required, specified conditions. Design and implementation of feedback requires understanding and controlling all of the potential factors influencing the process at work. This requires understanding not only natural behavior, but also specific sensory mechanisms, a means to analyze the significance of their readings, determining the correction steps needed to maintain production of the desired product, and appropriate hardware to implement the necessary corrections.

This may sound complicated. It is. It so complicated that it takes a highly-trained engineer to perform the task. Ask a chemical engineer if the specific feedback control loops required for a chemical plant to produce a specific product could be designed by randomly selecting components, randomly connecting them, using randomly chosen values to make random decisions about random control options. This is so remote from reality it is hard to understand what these words mean. Ask him if such a design methodology could produce required products consistently and reliably, without ever needing debug equipment or time. He would laugh. Even a possibility of success would be so irrational as to be unworthy of comment. Yet, abiogenists treat cellular feedback control as something that is trivial and just somehow shows up in working form whenever and wherever it is needed, all from random actions.

At the time of a cell's original appearance, all of its essential feedback systems need to be present and functioning. Virtually every function in a living cell is controlled by a feedback loop. Since a cell requires fully-functioning capability from its first appearance in accordance with Virchow's aphorism, discussed later, this means all of the various feedback loops in a cell need to make their initial appearance simultaneously in working form. The randomizing, step-by-step processes of evolutionary theory do not help at all in meeting this basic requirement. Honesty requires this to be recognized.

There is another, added difficulty to these things. Feedback mechanisms do not appear spontaneously from chemicals residing in a cell. They must first be explicitly defined in the cell's genetic information. Yet, feedback control is essential to translate this information. What mechanism do materialists offer to insert genetic information into a genome to provide for structures and processes

necessary to read and use the information? How do they propose to read and use the information before the hardware exists to read and use it? It is irrational and dishonest to claim that a natural origin of life is consistent with scientific observation when questions like this not only unanswered, but ignored.

The tasks requiring feedback control in even the simplest cell are overwhelmingly complex compared to those used in a chemical production facility. The intellectual capacity required to understand all of the factors influencing cellular operation is far beyond that of the most brilliant man. Natural law does not provide the means to fabricate a living cell according to an immaterial design specification. This requires the Designer to be able to fabricate the design supernaturally, i.e., outside the laws of nature. These things working together point to a Creator God as provider of the original cells.

Materialists may attempt to reject this conclusion. However, they have no experimentally confirmable alternative to work around the issues discussed above. The discussion presented to this point gives us a solid train of evidence pointing us to a Creator God. Materialists may deny the validity of this, but they have nothing comparable to offer in its place.

## **The Model of Molecular Engineering: Self Assembly and Self-Organization**

Molecular engineering is a very broad, relatively new field. It includes the application of *nanotechnology* to build structures that self assemble at the molecular level. The 2016 Nobel Prize in Chemistry was awarded to three pioneers in this field. Engineers are just beginning to uncover principles which allow them to design and fabricate simple machines and other objects at the molecular level. It appears that as this field matures, it will have the potential to completely revolutionize many aspects of modern life.

As an illustration of the potential this field offers, I personally heard Dr. James Tour of Rice University give a public speech (UT Dallas, September 12, 2019) about some of his work in this field. One project underway is combining a nanomotor, a nanodrill, and a protein capable of identifying MRSA bacteria. The idea is that the protein would selectively attach to the bacteria, and the motor would operate the drill which in turn would puncture a hole in the bacteria's cell membrane and cause its contents to spill out and kill it. This would be an alternative to antibiotics in treating MRSA. He did not speculate on how long it might take to solve all of the problems and for this to become an FDA-approved treatment. But, it shows what the field is about. It also gives a sense of the difficulties in working at this level. MRSA drills need first to be designed then fabricated; they do not spontaneously appear.

It is difficult enough to build objects that we can pick up and carry and saw in half. To move individual atoms and molecules into place to build molecular machines is a task so difficult that it is beyond comprehension for most of us.

Historically, man uses external processes to put together an object. Handcrafting and assembly-line fabrication are examples of external assembly. Many, perhaps most cellular components are formed differently: they either self assemble or self-organize at the molecular level. The principles of self assembly and self-organization are extremely difficult to uncover and implement.

In the earlier examples of information and feedback, we showed how information technology and chemical engineering provided us examples to understand how an intelligent designer could fabricate certain kinds of systems that are used in a living cell. Extrapolating the same methodology to the origin of life provides basis for the assertion that information and feedback in an organic cell are also the results of an intelligent designer at work.

In this case of self-organization, the reverse situation appears to be the case. Much more is understood about self-organization from observing the details of how it is used in cellular life than engineers can currently apply. It is by studying cellular activity that the molecular engineers hope to

uncover principles that will allow them to do their own design work. Cellular self-organization appears to be the work of an extremely Intelligent Design engineer. As the principles He applied in cellular design are uncovered, then human engineers can learn to apply them—although on a far lesser scale.

The term “self assembly” generally refers to a permanent assembly. Two or more different subcomponents find each other, orient themselves properly, and then form new, stable bonds making a permanent product.

By contrast self-organization takes self assembly to an entirely new, much more complex level. In self-organization, components can appear at relatively high concentrations in a cell without assembling. Then, under certain prescribed conditions which vary according to cellular requirements spatially and temporarily, they spontaneously come together to form a new component. The bonds formed are “metastable.” It takes energy not only to form them but also to sustain their formation. When this energy dissipates, so does the bond joining the components at a specific location. This results in their disassociation. A large structure composed of many molecules using metastable bonds may itself be stable, even though the molecules comprising it are constantly changing, with fresh, energized ones replacing those whose energy has dissipated. It is hard for us to relate to this kind of behavior. It is totally foreign to what we experience in our daily life. Yet, the presence and action of metastable relationships at the molecular level are very well established. They are required for cells to fabricate themselves and respond to environmental changes without depending on external workstations.

It takes a certain minimally required energy just to maintain the existence of a structure built using meta-stable bonds. This energy is supplied by cellular metabolism. If cellular metabolism stops for any reason, cellular structures quickly begin to fall apart. Beyond a certain point, a cell can be damaged beyond recovery and dies. Contrast this with a pair of pliers. As long as they are kept free of corrosion and not mechanically damaged, they can remain ready for use almost indefinitely. By contrast, living cells need a constant energy influx just to stay organized (alive). This is why we need to eat regularly.

Materialists typically claim that self-organization spontaneously emerges whenever it is required. This appears to be nothing more than wishful thinking. When examined carefully, it is hard to conceive of anything that could be further from the truth than such a claim.

It is readily observable that if two different dynamic systems are brought into contact with each other, then new, unexpected behaviors characteristically emerge. Materialists observe that emergence is characteristic of a broad range of phenomena in a cell. Based on this they assume that the emergence required for cellular behavior is built in to nature, i.e. nature favors whatever might be needed. However, more careful analysis of what transpires shows otherwise. A cell needs many instances of controlled emergent behavior. As an analogy, an elementary school child can get a chemistry set and mix chemicals from it and watch new chemicals emerge. However, it takes a chemical engineer to design a chemical plant which reliably provides a specific product out of all of the possible options available. Cells require very explicitly defined behavior concerning when, where, and what kind of self-organization is required. Metastable bonds need to appear under very specific conditions and stop forming under others. Controlling when the bonds begin and stop forming to meet a specific cellular requirement is an extremely difficult task. Yet, this is at the heart of cellular design. Moreover, cellular survival requires all of these criteria to work at first appearance. The abiogenist’s assertion that this behavior emerges spontaneously as needed is far, far from the truth.

In the case of a living cell, the specifically required behavior needs to be built into the chemical structures of the various proteins, lipids, and nucleic acids subject to self-organization. This in turn leads to another difficulty: the proper structure to produce a required behavior needs to be defined in the information present in the genes to make the required chemicals. I.e., a cell’s genome needs to contain a sequence of nucleotides which, when properly translated or interpreted, will provide the exact structures needed to produce the exact behavior needed for proper self-organization under specifically-defined conditions.



For a practical illustration of self-organization at work in a cell, I recommend you view the YouTube clip on Mitosis at <https://www.youtube.com/watch?v=C6hn3sA0ip0>. Funds to make the clip were provided by the National Science Foundation. It shows how various cellular components “spontaneously” appear and disappear as needed.

The design effort to accomplish the tasks illustrated in this clip dwarfs anything man can do. An engineer needs to understand the resources he has available in order to use them. Sufficient intellectual capacity to understand all of the options available in cellular design points to the designer as a living God. The ability to move atoms and molecules into place including active, dynamic relationships also requires a living God.

One should marvel at the wisdom of the Designer who could fabricate the behavior shown in this clip. Materialists may take offense to this discussion. However, their alternative of random, step-by-step processes is so weak that it cannot successfully accomplish the first step of abiogenesis, producing a supply of amino acids of sufficient purity for use by the next step. I suggest that it is irrational to propose that the random, step-by-step solution offered by the materialist can provide specifically targeted, self-organizing behavior such as observed in the clip.

## **Beyond Engineering: Four Observations Confirming God**

Of the various issues revealed by scientific observation presented at the opening of this paper, four of them appear to confirm that a Creator God is needed for the appearance of life: 1) No successful experiments in abiogenesis: Natural processes invariably increase molecular randomness, providing unusable products. 2) Virchow’s Aphorism: the entire cell needs to be fabricated in a single step. 3) Required “instantaneous” fabrication: only minutes are available for fabrication of a functional cell, not millions of years. 4) Debug: no means or time for debug.

It is difficult to comprehend how simple, unguided, uncontrolled, random, gradual modifications to a body of chemicals could resolve these problems. There is most certainly no experimental evidence as of this date giving basis to believe it possible. Science is about experimental evidence, not philosophical preference.

**No Successful Experiments in Abiogenesis.** It appears that every experimentally tested step in origin-of-life studies (abiogenesis) has failed. Reputedly thousands of experiments in abiogenesis have been performed over the past sixty years, testing plausible prebiotic processes from many possible variations and representing proposed steps across the field to whatever degree they can be tested. Not a single experiment has converted its feedstock into new products useful for an advance towards life and done this in a form that could actually be used by a subsequent step. The new products consistently have too much contamination for subsequent use. Also, any potentially useful products are in unusable ratios with each other. There is no feedback control available to restrict products yielded to those needed. Thousands of failures with no successes present a serious problem. Successful abiogenesis requires the entire path to be traversed without failure. Yet, after thousands of experiments, there is still not a single step along the path that has been successfully traversed.

The arguments discussed here are a summary of an article on Abiogenetic Randomization posted online at [www.osf.io/p5nw3](http://www.osf.io/p5nw3); I am a co-author of the article. The person interested in a complete analysis of the material summarized here along with proper citations is referred to the article.

There is a basic problem characteristic of prebiotic processes in general which causes these failures. Unguided, naturally available processes randomize their feedstock. In other words, they yield products that are innately more random in the chemical structures of output assortment than what they started with. The reason for this is simple. Prebiotic processes use uncontrolled energy sources. These randomly act on the chemicals supplied. The chemicals are inherently capable of being modified into a broad

range of new products, literally millions of them. Some of these are suitable for life, most are not. There is nothing to constrain those that are produced to be the ones required for life spatially and temporally. Because there are no constraints, the natural tendency is to provide the wrong products. This tendency is so ingrained in nature that it is virtually impossible for random processes to overcome it. This issue is worked through painstakingly and thoroughly in the above article. It appears that the principles of nature specifically work against a materialist origin of life.

This observation is critical and foundational. It appears to be confirmed by the consistent agreement between its assertions and observed results of experiments throughout the entire 60-year history of abiogenesis. With this much experimental support it will plausibly be difficult to falsify.

Every time natural processes have been experimentally tested, they have proven ineffective in providing usable new products as produced. It seems that thousands of failed experiments should be adequate to make this point. When they consistently fail the simplest tasks, what basis is there to expect them to succeed with the incomprehensibly difficult ones such as discussed above?

There are two challenges coming out of this. 1) Cite a successful experiment if you know of one. I recently created a blog and posted it online at [ctotim.com](http://ctotim.com) for the specific purpose of providing a vehicle for response to the assertions made in this paper. If you can cite a successful experiment for any step/stage of abiogenesis, please cite it. If abiogenesis is a legitimate field of science and if thousands of experiments have been performed in it over the past six decades, then it should be trivial to cite at least one successful one. However, I have followed the literature in the field for years and am not aware of anything to cite. This is a critical issue which professors refuse to share with students in their classes. If you disagree with the assertions presented here, please don't attack me personally. Cite an experiment.

If you are unable to cite a successful experiment—and I have offered this challenge verbally as an email challenge for over five years and no one has cited one yet—then at least explain why thousands of failed experiments with no successes should not imply that a natural origin of life appears to be contrary to scientific observation. I expect the blog to be silent on both issues. Most scientists will never even have considered these topics, because they contradict the materialistic mindset of modern science and therefore discussion of them is taboo. To a materialist, the strength of challenging evidence is irrelevant. Challenges to materialism are not allowed regardless of their strength. Such a mindset does not appear to be consistent with true science. If I am misrepresenting the situation, the blog is available. Use it!

**Virchow's Aporism: All cells from cells.** Rudolf Virchow was a German scientist in the middle 1800s. He summarized an observation (referred to as *Virchow's aporism*) that today is still the foundation of cellular theory: "All cells from cells." In other words, there is a certain minimal complexity required for a cell to maintain its existence and replicate. Anything less than this can't; isolated cellular components neither function nor replicate. There is a long list of essential cellular features. The list includes an information storage medium containing sufficient information stored within it, information processing cellular hardware, cellular metabolism, cell membranes along with active transport of specific chemicals through the membrane according to cellular needs, and replication. The ramifications of this are straight forward: a living cell needs to make a single-step, fully-developed, sudden appearance with all of these features in place. Anything less than this cannot sustain whatever functional organization may have appeared. There is no means to replicate it to build on it. Unfortunately, this minimum level of complexity is extremely high. Scientists openly admit they have no clue how natural processes could provide such a high degree of initial complexity.

Many scientists debate about the definition of physical life. As a retired design engineer looking at the practical perspective, I believe the answer is simple. Physical life is a collection of organic molecules exhibiting metabolism and satisfying the dictates of Virchow's aporism. That is it. From my personal perspective, abiogenesis covers the field of investigation between naturally appearing non-biological chemicals up to the point of organization sufficient to initiate Virchow's aporism. Once the aporism is

effective, the biological tools for mutation and natural selection become available and the cellular development process has moved past abiogenesis. Bios (the Greek word for “life”) has been generated.

**Short time span for abiogenesis: Minutes at most.** Another issue also plausibly presents a fatal obstacle to a natural origin of life: the extremely short period of time available for its appearance. Major cellular structures and their operation are controlled by self-organization. Self-organized structures require a constant input of energy to avoid degradation. It is impossible to construct a self-organized structure without an already functioning energy source capable of supplying energized components. Yet, the dictates of Virchow’s aphorism requires the entire cell to be in place including its energy source for self-organization to take place. Here is a conundrum: The self-organization inherent in cellular design needs the energy the active cell will produce just to provide initial cellular organization required to produce the energy. This appears to pose an insurmountable obstacle to a natural origin.

Although one can quibble over just how much time would be available for initial cellular fabrication, it appears reasonable to place it on the order of minutes, not days, years, millennia, or longer. From a practical standpoint, it is definitely short enough to preclude the gradual, step-by-step processes abiogenists propose. Once scientific observation has led to the conclusion that a fully-formed cell needed to make its first appearance within minutes at most, there was strong basis to attribute the origin of life to a Creator God.

**No debug allowed: no tools or time available.** There is yet another problem. There is no means available for natural processes to “debug” an almost working initial cell.

I spent most of my professional career as an industrial design engineer. Of this, two decades were spent in electronics hardware design, most of this working with software engineers designing information-driven systems. I have at one time or another designed circuit boards for computers, communication systems, video systems, data encryption systems, and industrial feedback control among others. I understand the design of information-driven systems very well. Design is the easy part. Debug of problems in the design is the hard part. In a truly complex system, requiring dozens of hardware engineers and even more software engineers, it could easily take four to five times as long to identify and fix unintended design errors as to do the initial design.

In order to find an error during debug of a product under development, the first requirement was to have the design specification to show what was intended to be accomplished. Next, we would have specialized test equipment which would allow us to observe the behavior of isolated parts of the fabrication under very controlled conditions. We would predict the expected test values depending on the specification. If there was a discrepancy, we would then try to find the cause and fix it. When multiple errors existed simultaneously in a common portion of the design, it could be very difficult to isolate and identify any of them. Intermittent problems were almost impossible to fix.

Engineering experience demonstrates conclusively a simple fact. In a complex design, the issue is not how much works properly—it is how much doesn’t work. It only takes a few small errors to render useless an otherwise effective design. Furthermore, finding and fixing the final errors is typically an extremely difficult task. It does not automatically happen. This is typically ignored by abiogenists.

In a prebiotic scenario there would be no specialized tools available. There would be no specification to interpret properly tool readings if they existed. There would be no creative assessment of how to fix any problems identified. The evolutionary model of randomly modifying some portion of a design in the hope that a lucky modification would fix a bug would be inadequate, to say the least. One would never know how many bugs were in a failing system until all of them were fixed. If multiple failures prevented the system from working, then one would not know if a random change broke something that was working, had no effect, or had actually reduced the number of problems remaining. Thus, before a cell is alive and Virchow’s aphorism is active, there is no viable method of debug. Abiogenists need to face the reality of this observation head-on.

Lack of specialized equipment for debug places an extremely stringent requirement on the Designer. The original cell must appear error-free with full functionality from its first appearance. So, not only is a living God required first to design and then to fabricate a living cell in a single step, He must have sufficient intelligence, wisdom, understanding, and insight to get the design completely correct in that one step. Materialistic processes are incapable of meeting these standards. The fact that living cells actually have appeared despite such stringent requirements gives strong testimony of God's greatness.

From a materialistic perspective, there is another issue related to debug. If an almost working cell were to appear and if specialized debug equipment actually existed, there plausibly would not be any time available for its use before dissipation in self-organizing cellular structures would quickly destroy the initially appearing organization. God had to make it quickly and correct the first time.

**An incidental observation regard reproduction.** Which came first, the chicken or the egg? Current understanding in abiogenesis assumes that the egg came first, where an egg represents reproduction (replication). However, this is more an assumption because of materialistic philosophical preferences than observed evidence. The problem is Virchow's aphorism, as discussed earlier. A minimal cell is extremely complex, needing a number of major functioning systems showing up simultaneously. There is no conceivable path between a self-replicating molecule and a minimal cell meeting the functional requirements of the aphorism. A self-replicating molecule may be an interesting phenomenon—if it could appear in real life—but reasonably appears useless as a step to initiate operation of the aphorism. None of the problems presented in the introduction get resolved by a self-replicating molecule. The rational answer to this question is that the chicken or other organism was created by God along with inherent replication/reproduction capability. God made the first instance of a given kind of organism and specifically made it to include its ability to multiply itself without further creative acts required.

## **Compatibility of Science/Engineering Observation and Literal Genesis**

**Consistency between Genesis 1 and Science.** Despite the rhetoric of evolutionists, in many ways observed science appears to agree with a literal understanding of Genesis 1 better than it does evolutionary theory:

**1) The engineering model of specification followed by implementation.** Our analysis has shown that cellular life appears to have been created according to a predetermined plan. Three of the most fundamental, complex, and essential cellular activities—generation of cellular information and fabrication of hardware to be used by it, control of cellular function by complex feedback loops, and self-organization of critically required cellular structures and their functions—have analogs in the modern engineering world. The engineering model is first to form a specification defining what and how to make something, then to make it. The engineering model requires an intelligent being who starts with a target goal, understands the resources available from natural physical and chemical substances and behaviors, and how to implement the goal using the naturally available resources. The issues of how to design a protein to exhibit self organization and then place code for the required structural characteristics in a cell's genetic information involves a depth of understanding beyond our comprehension. If a human computer engineer, chemical engineer, or molecular engineer would laugh at the assertion that he could be replaced by randomizing processes, how much more naïve would it be for someone to attribute the complexities of cellular design to random, unguided behavior! If the methodology of engineering design and fabrication is applied to the origin of life, it appears that it would naturally lead to a living Creator God, One with a will and the ability to move atoms and molecules into dynamic relationships independently of the laws of physics and chemistry, in order to create a living cell.

The Bible in Genesis 1 presents a predefined, sequential plan of a creation taking six days to implement. The language and flow of thought in the chapters give the appearance of a predesigned plan. For instance, a typical passage might read, "Let there be...and there was." This shows preplanning. Something was first defined and then fabricated. The materialistic/evolutionary model

attributes the appearance of cells to unguided, random associations over long periods of time. The observations of science and engineering taken together are more compatible with the Biblical model of preplanned design than the evolutionary model of untargeted, random, step-by-step progress.

**2) The time span.** Science shows original cells needed to be formed within minutes, before degradation destroyed progress. Materialists claim cellular formation was a slow, gradual process over extended periods of time, typically at least millions of years. The Bible implies life was created extremely quickly—God said, “Let there be... and there was....” Science is more consistent with the Bible than it is with evolutionary theory.

**3) The chicken first or the egg first?** A common riddle is, “Which came first, the chicken or the egg?” Abiogenists teach that reproduction of self-replicating molecules came first (the egg). In time these molecules evolved into fully functioning, living cells. Yet, this appears to be directly contradicted by Virchow’s aphorism. Scientists have no explanation of how to bridge the gap between a supposed self-replicating molecule and an autonomous living cell. By contrast, Genesis 1 provides a solution to this paradox. In several places this chapter discusses how God created organisms with their seed (means of reproduction) in themselves. The Bible teaches that its God created the first instances of the various kinds of organisms fully formed from the beginning and which also had an inherent capability to reproduce and multiply. Thus, chickens were created instantly and were fully formed, including their initial capacity to form eggs. God made the first instances of a kind. He made them so that after they had been formed, they were able to reproduce and to multiply on their own. The Bible incidentally, without fanfare, answers a basic question that people have pondered for years. The description provided by Genesis 1 in the Bible is more compatible with scientific observation than is current understanding of abiogenesis.

**4) The problem of failed steps due to randomization.** It appears that every experiment testing some phase of a natural origin of life has failed. The experiment does not yield products representing an advance towards life and which can be used in a subsequent step as produced. Too many wrong, contaminating products are produced and those that are produced are not done so in the proper ratios with each other. Randomization is one of the most basic principles of physics and chemistry. There is no known method for random processes to work around the problem of randomization. The Biblical model of an extremely intelligent, living God who can create a universe out of nothing, placing atoms where and how He wants in proper dynamic relationship with each other at will is more consistent with explaining our presence than is materialistic/evolutionary theory, which has failed in every experimental step trying to explain our origin.

**5) Debug Issues.** Engineering design typically involves extensive debug. Engineering debug requires a design specification, specialized test equipment to isolate problems during tests, and an engineer with sufficient intelligence to isolate problems using these resources. The engineer must also have sufficient creativity to figure out how to fix the problems once identified. The materialistic approach provides none of the resources required for debug. The limited time span of mere minutes before degradation begins in a non-functioning cell would not allow opportunity for debug even if required resources were available. Natural processes offer no known means to work around these issues. The Bible presents a God whose understanding is without limit and would have the inherent capability to get a design correct the first time; His designs would plausibly not require debug. After each of the six days in Genesis 1, God evaluated what He had accomplished and pronounced it “good.” As a retired design engineer, I can testify that a good design is one which meets its target specification without defects. This is the significance of the evaluation, “Good.” By contrast, the materialistic/evolutionary approach is based on partially working features generated randomly and then debugging them through randomizing processes. Yet, observed science appears to teach against this as a viable possibility. The Biblical model of creation by a God of sufficient intelligence to fabricate a “good” design—i.e., one correct without requiring debug—is more compatible with the requirements of scientific observation than is the materialistic/evolutionary model.

**6) Biblical kinds: closer to a taxonomic family than to species.** Much confusion has come about from misunderstanding the meaning of Biblical “kinds” talked about in Genesis 1. A good summary of the issues can be found at [https://creationwiki.org/Created\\_kind](https://creationwiki.org/Created_kind). From the Biblical perspective, God created kinds. When one works through the issues, it appears they were most typically at the taxonomic family level. The original kinds would have had sufficient genomic information for rapid specialization in succeeding generations. The specialists rapidly came to represent genera and species. They did this at the cost of losing original information. There is no conflict between the Bible and specialization. Sometimes specialization is called microevolution, although this definition can have other meanings and so can be ambiguous. There is much evidence for evolution at this level. By contrast, most people think of evolution as being at the level to convert bacteria into men. This requires huge blocks of new information. Creationists reject this because: 1) It is against how the Bible presents the creation of kinds. 2) Plausibly, many of the issues that prevent abiogenesis would apply here, meaning there would be no chemical method to implement macroevolution. 3) Most of the evidence given to support macroevolution is consistent with specialization and hence proves nothing. The remaining evidence for macroevolution is not only sketchy but lopsided in its presentation—all kinds of assumptions are presented as fact and any contrary evidence is ignored. It is beyond the scope of this paper to say much more about this in the paragraph or so available.

**7) Top-down design.** Top down-design is one of the strongest evidences of a Creator God. Its manifestations apply across all levels of creation and gives testimony to every man in every culture who is willing to see it. This includes the most sophisticated scientist. Very complex things fit together extremely well wherever one looks. By contrast, bottom-up processes are not capable of doing this. In engineering, untrained designers mimic the random processes of evolution. Problems are solved locally without regard to how they are related to other parts. The result is disorganized relationships and wasted resources. Because of many inherent interdependencies, it is virtually impossible to undo extensive initial disorganization. An experienced engineer can easily distinguish between a good top-level design and a bottom up one. The Creation at every level bears testimony of top-down design. Perhaps this may be considered subjective. God considers it sufficient to render a man without excuse for not seeing it (Romans 1:18-20). Everything about God presented in the Bible shows Him as a top-down Designer, never doing anything apart from a predefined purpose, including what is revealed about Him in Genesis 1. The observations of nature are more compatible with Genesis 1 and its God than with the random, unguided methodology of evolutionary theory.

**Significance of the observations.** If life cannot appear spontaneously, materialism is dead. It would demonstrate that natural, materialistic processes are in themselves incapable of generating life. In this case, science would demonstrate that materialism is not sufficient to explain everything. If there are no living cells to evolve, then general evolution (macroevolution) cannot take place. This changes all of the “rules of the game.” Evolutionary theory can no longer be legitimately limited to materialistic explanations. It is possible that an interpretation of many arguments used to support general evolution would be at least as compatible with the model of kinds from the Bible as are current materialistic explanations. This discussion is currently forbidden. But, if materialism is falsified, it should be allowed.

Since observations from science/engineering plausibly point to a Creator God as the source of life, I would like to make some observations which may have relevance to the validity of macroevolution.

There are two forms of science, operational (experimental) science and historical science. Operational science is based on controlled, repeatable experiments. Historical science attempts to reconstruct history based on available evidence and known principles. A branch of this is forensic science, in which police attempt to reconstruct a crime. There is a vast difference between the operational and historical sciences. Historical science is in truth history, but history viewed through the spectacles of scientific principles.

The primary evidences for macroevolution are based on historical science, not experimental science. There are major problems with this:

- 1) Historical evidence cannot discern whether God intervened or not. Nor can it discern what He did.
- 2) If God did intervene and evolutionists are unwilling to acknowledge this possibility, then any explanations they offer are guaranteed to be wrong. The problem then is not with God or the evidence. It is with the unfounded bias used in the interpretation of the evidence.
- 3) Unlike events in experimental science, historical events are not repeatable. If an essential piece of information is lost, it is lost forever.
- 4) One never knows for sure if he has available sufficient evidence to truly understand an issue.

The problem is that evolutionists interpret historical events from the perspective that materialism is valid and no other possibilities even warrant discussion. As a result, even if their evidence appears strong, it may well only be partial, either deliberately (anything contrary to materialism is suppressed), or based on incomplete information and assumptions. Consequentially, their supposed strong reasons are potentially meaningless.

Suppose you were to go to a trial and the judge allowed only the prosecution to present its case. The defendant could see all kinds of misrepresentations being made by the prosecution, but the judge did not allow him to speak, claiming that since he was guilty his comments were irrelevant. The judge then issued a verdict based on only the prosecution's case. If the judge declared the defendant "guilty," would the verdict have any credibility? No.

Yet, this is the methodology of evolutionists. As such, their pronouncements have no credibility. They may sound good, but only one side is allowed to make its case and there are fundamental flaws in the presentation. The most significant is that there appears to be no viable mechanism to account for major evolutionary changes requiring substantial bodies of new information, intricate new feedback loops, and extensive debug processing. These issues appear to prove fatal to abiogenesis. There is basis to extend them to general evolutionary teaching as well. If there is no viable mechanism for natural processes to provide these things and if there is no basis to determine whether or not God intervened, then evidences from historical science are by nature too uncertain to draw definite conclusions.

### **Concluding Remarks**

The following remarks summarize some of the material presented in the fourth article of a collection I wrote and posted online at **[www.trbap.org/5articles-long.pdf](http://www.trbap.org/5articles-long.pdf)**.

Ever since the days of Thomas Huxley, a contemporary of Charles Darwin, evolutionary science appears to have been primarily a tool used to promote materialism, not to provide an open discussion of the evidence. Materialism is the philosophy that natural process such as those we see at work in physics and chemistry are considered adequate to explain everything that exists, including the origin of all of the life forms we see around us. Any evidence that purports to challenge the adequacy of materialistic processes to accomplish this is rejected as false without further examination. However, this rejection is based on the ASSUMPTION that materialistic processes are adequate. They have never been proven adequate. Huxley's approach was to ignore any challenges by creationists and others concerning the sufficiency of materialistic solutions. He claimed that it was fruitless and a waste of time to discuss what they said. Subsequently, Huxley's approach was to attack vociferously anyone who dared to challenge materialism, violently slandering him personally. The attack was then used as an excuse to ignore the comments. Huxley claimed he had strong arguments, when in truth he did not. This is discussed extensively in the fourth of the five articles, with lots of quotes from his own writings. He represents fake science. Sadly, his example is still copied by most scientists today, particularly concerning origins.

We did not start with God as a presumption and then attempt to impose Him onto the evidence. By contrast, we started with observations from both science and engineering and applied them to issues related to the origin of life. The scope of these issues led us to a living cell coming for the efforts of an Intelligent Being capable of moving atoms and molecules into place at will and according to a predetermined plan. Refusal to discuss this model openly and honestly because it contradicts preconceived personal philosophy (i.e., materialism) represents biased pseudoscience, not unbiased science.

**Final Remarks.** From this point on, I will be writing as a pastor, not a lay scientist.

The issue of whether we are here by an act of a living God or from the operation of unguided, randomizing processes is important. Unlike discussion of the best opening move in a chess game, how a person responds to the issues discussed here potentially has eternal significance.

The following parable provides an important perspective: Assume you are a scientist. You have dedicated your life working out a form of unified field theory ([https://en.wikipedia.org/wiki/Unified\\_field\\_theory](https://en.wikipedia.org/wiki/Unified_field_theory)). Your friends expect this get you a Nobel Prize in physics. All of your work is stored in your computer with no backup copies (you never had time to get around to making them). You have failing health and will have no opportunity do the work over. You show your work to a certain friend whom you expect to be excited about the truths you have uncovered and their significance. Instead, you hear the words “This is all nonsense, not even worth consideration.” Then, without even bothering to find out what you have written or any of the scientific bases behind it, he laughs at you as he destroys your computer and its data beyond recovery. Your lifetime’s work has been mocked and destroyed. Would you say, “Oh well, since we are friends, this is not a big deal and then shrug it off? Or would you become angry? Suppose your “friend” started telling everyone that you were “a fake.” He tried to destroy your reputation. He would not even listen to your arguments, but insisted to everyone that they were foolish and not even worth looking at. He claimed he did the world a favor by obliterating them. How would you react to this?

The above parable illustrates a Biblical perspective. The Bible presents that there is a living God who designed and formed the creation in such a way as to make it clear that He did it—even to atheistic scientists if only they would listen. He expects each one of us to be in awe of the wisdom and power He exercised in the things He made. He expects us glorify Him as Creator and give Him thanksgiving. Suppressing then rejecting this knowledge offends Him greatly and arouses His wrath (Romans 1:18-2:5). Mocking Him is even worse. Beyond this, there are those who not only mock Him themselves, but try to get others to follow after them in their mocking. They store up even greater wrath in the coming Day of Judgment.

If the things discussed here are true, then knowing and understanding who this Creator is and what He expects from us is more important than anything else in our life—what each of us does with God affects our eternal destiny, for good or for bad. He observes the priority we give to Him and this impacts our eternal destiny.

In mercy and love God also offers the one sinning against Him forgiveness and reconciliation—but only under His terms. In the parable, the scientist being mocked was aged and had no power to respond to the attack on his character. The situation with God is different. He is eternal, He made us with a soul that continues forever once formed, and He has the power to create a galaxy in an instant without getting tired. Offending Him is foolish. Once a wise person is aware of his situation, getting issues properly resolved with God becomes the single highest priority of his life.

From a Biblical perspective, a literal understanding of Genesis chapters 1 – 4 is second only to the Gospel in its significance. (*The Gospel* is a specific message God has given us which tells His way how we can have our sins forgiven and be reconciled to Him.) Chapter 1 proclaims that the God of the Bible directly created the heavens, the Earth, and the life we see on Earth. Chapter 2 declares that as Creator He has the right to establish rules for our behavior and to judge us if we disobey. Chapter 3 demonstrates that God exercises His right to rule and to judge. Chapter 4 reveals that God is willing to be reconciled to us through a proper offering—but only on the terms He establishes. The importance of these chapters makes them a target for any who do not like the message they contain.

The third chapter of Genesis describes a historical event with consequences still affecting us today. Adam, the first man, and Eve, his wife, chose to disobey God in the hope that their action would result in them acquiring greater wisdom and experiencing a fuller life and that they could do this without consequential judgment. Man is still pursuing this goal today. We are descendants of Adam and Eve—ones who rejected God’s authority over them, wanting to become their own gods. They wanted to determine truth according to their own wisdom. They were the world’s first humanists.



Unsaved man has no desire to submit His will to a holy God. In line with the promise Satan made to Eve in the Garden, man wants to be his own god, determining for himself what is right and wrong. Jesus said that “He who sins is a slave to sin (John 8:34). An unsaved man does not have a personal, living relationship with God. To him God is merely one who takes offense to the things that make life worth living and to which he is enslaved. In an effort to soothe his conscience about God, he vociferously attacks the legitimacy of the opening chapters of Genesis. He does not have a personal relationship with God and thus He finds that the standards of a holy God are too stifling and too restricting for him to live by. Those who claim to be believers and yet reject a literal understanding of these chapters imply that God was not accurate in these chapters, even though they are so essential to everything that follows. They implicitly agree with atheistic materialists that the arguments for materialism are stronger than those for a literal interpretation of these chapters. As a pastor, I believe this offends God greatly.

God hates idolatry. This theme runs throughout both Old and New Testaments. God is a jealous God and He judges idolatry severely (Deuteronomy 4:24-29, Romans 1:18-2:5). He will not give His glory to another (Isaiah 42:8, 48:11). In traditional idolatry, physical objects are worshiped instead of God. He hates this. In modern society a physical process—natural selection—is worshiped. None of the wisdom and creative power God used to plan and make the various life forms around us is acknowledged. Instead, all of the credit is given to a mindless process, natural selection. Modern idolatry is more subtle and dangerous than traditional. Physical objects have no power, yet can get a powerful grip on a person’s mind. By contrast the process *natural selection* is claimed to have such great power that it can account for the appearance of all of the various life forms around us. Since, according to Romans 1, natural man wants to suppress truth about God and turn to idolatry, the hold of evolutionary theory on unsaved man is potentially even stronger than traditional idolatry. Sadly, unsaved man wants idolatry to be true. From Romans 1, God’s wrath is aroused by the worship of any form of idolatry. He alone is worthy of worship. This natural bias for idolatry is a spiritual issue to be fought against.

God is a God of love. He demonstrated this in sending Christ to die as our substitute, bearing the punishment we deserve for our sins. This is true love! But, Christ Himself spoke about eternal judgment in Hell more than almost any other issue. It is foolish for someone to claim to rely on Christ for salvation while rejecting what He taught. This shows he still hates the light (John 3:16-21). God sets standards for salvation and His love provided a means of reconciliation to those who want reconciliation—but He also reveals that salvation is only available under His terms (Genesis 4). His love does not provide an excuse for the behavior of those who in their hearts still reject Him and His Word, wanting Him to submit to their terms. This was the mistake of Cain in Genesis 4. Woe to the one who in his heart believes that the arguments presented by those who reject God are stronger than what God has given us in His Word and for His Word. Woe to leaders who teach others these things even while claiming to be His servants. Give the living Creator God glory by believing Him and His Word!

The fifth of the five articles mentioned above serves two purposes. First, it uses shows how Jesus fulfilled various prophecies concerning the Messiah in the Old Testament. This is presented as evidence to confirm that the God of creation and the God of the Bible are plausibly one and the same.

However, there is something bigger in Jesus than merely representing fulfilled prophecy. These passages present Him as Savior, as uniquely the One who can reconcile us to a just and holy God.

The issue of whether the God of the Bible is the God of Creation has significant and eternal ramifications. Perhaps this is best explained by a passage in the Bible, Romans 1:18-20:

<sup>18</sup>For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who suppress the truth in unrighteousness,<sup>19</sup>because what may be known of God is manifest in them, for God has shown it to them.<sup>20</sup>For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse.

I would like to examine the contents of this passage in reverse order, starting with verse 20. This verse implies that the God of the Bible designed the creation, including the life that is in it, to reveal His

person, that is, His eternal power and Godhead. Earlier we saw how the combined observations of science and engineering plausibly led to the origin of life as being the product of an Intelligent Being who had the characteristics of a personal God. According to verse 20, this is exactly what we should expect to find. True, unbiased engineering and science work together to lead a person to the understanding that a living, personal God created the life we see around us because God designed the creation to do this. I believe the arguments presented in the earlier discussion were clear and powerful. God says the evidence from creation leading to understanding basic qualities of His person are so clear that HE counts a person as without excuse who rejects the testimony. This paper attempts to show how.

Verse 19 says that God works within each one of us individually to show us that He exists. He uses the creation to do this. So, deep down every one of us knows this God truly is the Creator.

The last half of verse 18 talks about how the natural reaction of man (this applies to each person individually and can also apply to societies as a whole) is to suppress personal knowledge of God. I believe the reason for this is that the word "Godhead" in verse 20 refers to His nature as God and this includes His holiness. God shows each of us individually through our conscience that He is holy and that we are sinful. It is the guilt we experience because of the sin in our life and the personal recognition that this sin offends God that leads to our rejection of God as Creator. We do not want to know of a holy God. This is why verse 18 closes with the statement that we suppress truth about God because of our sin. However, this is dangerous. The first part of verse 18 tells us that God's wrath is aroused by our ungodliness and unrighteousness. There are severe, eternal consequences to the sin we covet.

So, the true reason men hate the opening chapters of Genesis is not because of science as much as it represents an effort to deny their accountability to God. Science becomes an excuse to ignore the warnings. It appears to be easier for us to sear our consciences if we can somehow make science appear to justify rejection of the inward testimony God gives each of us personally. Yet, doing this only increases God's wrath in a coming day of judgment. God sees the inward motives of our hearts.

Earlier we mentioned that God in His love makes reconciliation with Him possible. This is what Genesis chapter 4 is all about. However, He tells us the terms; we don't tell Him our conditions.

The basis for forgiveness is simple. The 5<sup>th</sup> article in the collection mentioned earlier talks about how Messianic prophecy tells of a coming Savior (Jesus Christ) who will offer Himself as a sacrifice to pay for the sins of men. God declared that this Savior would offer Himself as a sacrifice over 700 years before this took place. In the proper time this is exactly what happened as God sovereignly carried out His plan. The prophecy was not mere foresight. It was revealing a specific action God had determined to do, which in time He did do. This is the power of the God we need to serve.

The Bible reveals that God already existed in the beginning (of eternity). Jesus existed as God with God in the beginning. In time, He was made flesh (John 1:1-2, 14), becoming fully man and fully God. He was made flesh for our sakes, to bear our sins. These things are to be believed as revealed by God concerning Himself, but are beyond our comprehension. Our response reveals our degree of submission.

If God is working on your heart even now to seek reconciliation with Him, call on Him with your lips to save you, submitting to Him as Lord. He is worthy of obedience in this life. Come to Him relying on the sufficiency of the once-for-all sacrifice of Jesus on the cross to wash you from your sins and relying on Him in His resurrection to receive you into eternity as a new child of God. He promised that all who come to Him in this manner will be received (See Romans 10:9). After receiving Christ, you should also be immersed (baptized) in the name of the Father, Son, and Holy Spirit (See Matthew 28:19).

"You are worthy, O Lord, to receive glory and honor and power; for You created all things, and by Your will they exist and were created." Revelation 4:10

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# Does Unbiased Science Falsify Materialism?

## Potential Questions for Students to Ask Their Professors

### Concerning a Natural Origin of Life

By Timothy R. Stout, Pastor, The Rock Baptist Church, Greenville, Texas

The following questions are based on a collection of five articles grouped together under the title:

*A Living God Reveals Himself Through the Creation:  
How Unbiased Science Leads to Knowledge of the Creator*

The collection is available free of charge at <http://trbap.org/5articles-long.pdf>. The letters in parentheses (A1, A2, A3 etc.) refers to which article (Article 1, Article 2, Article 3, etc.) discusses the issues addressed by the question.

1. (A3) It appears that there has not been a single successful prebiotic experiment within the history of modern abiogenesis (1953 – now). Success is defined here as formation of new biological chemicals usable in a subsequent step as produced. Can you cite a successful one? Use **ctotim.com**.
2. (A3) If reputedly thousands of experiments have been performed over this span and all consistently revealed reasons why the particular step being examined was subsequently unusable, (typically too much contamination and unusable ratios of desired chemicals) shouldn't this teach against the plausibility of a natural, unguided appearance of life?
3. (A3) If scientists cannot get any step to yield usable results using controlled starting chemicals and environmental conditions, on what basis do they expect better and more consistent results using highly contaminated starting chemicals and wildly erratic environmental conditions?
4. (A3) Article 3 postulates that “randomization of initial starting chemicals” appears to be an underlying root to most if not all of the failed steps of abiogenesis. It shows how steps along the entire hypothetical path of a natural origin of life appear to be thwarted by this single principle. Can you cite any experiments whose products are not plagued by randomization? If not, is it reasonable to conclude that the hypothesis of randomization is plausibly confirmed by thousands of experiments? If valid, then on what scientific basis could a natural, spontaneous origin of life be expected to overcome this problem? Would this make a natural origin of life virtually impossible?
5. (A3) One of the problems concerning organic chemistry in general and consistently impacting the chemistry of abiogenesis is that a random source of energy tends to convert organic compounds into tar. From an origin-of-life perspective, once chemicals join the tar mass, they become inert. How can the entire sequence of required steps for abiogenesis reasonably take place without first somewhere along the path becoming thwarted by tar conversion?
6. (A3) Natural environmental conditions tend to fluctuate over long periods of time between flood conditions and drought. During a flood, there will typically be a large mass of entrained mud entering lakes and ponds. When the mud settles, it buries organic molecules which have adhered to it, either locally or downstream. This would remove incipient biological compounds from solution. Small ponds get washed out. During a drought, progress stops, typically under conditions of high exposure to UV light. This typically results in the degradation of chemicals that may have been useful for abiogenesis. Is there any known site on Earth at the current time whose environment would reasonably be stable enough over long periods of time to allow abiogenesis to take place?

7. (A4) If the combined impacts of all of the above issues lead to the conclusion that scientific observation gives sound basis to understand that a natural origin of life is virtually impossible, can you name a standard journal willing to discuss this? Would you be able to get research funds from standard funds grantors to pursue this issue? Would your institution allow you to teach what you have concluded and the scientific reasoning behind it? If you would desire to discuss these things with your students, would your institution allow you to do so? If an *a priori* commitment to a particular philosophy such as materialism overrides open discussion of consistently observed scientific data and the natural conclusions they lead to, does this represent pseudoscience? If not, why not? Is there a commitment to “only materialistic explanations allowed” within the established scientific network of journals, grants, and academic jobs concerning abiogenesis and evolutionary theory? If so, does this color their claims? Should not discussion of issues such as these be appropriate for a university setting, particularly if the goal is to teach students how to think and not what to think?

8. (A1) Both computers and living cells are “information-driven machines.” Concerning computers, the complexities of interacting software and hardware require an intelligent design team working to implement a predefined specification first to come up with a paper design and then use this as a fabrication guide. There is no known rational basis to expect randomizing, step-by-step processes to come up with a functioning computer, complete with information and hardware and which works at initial power up. A living cell is yet far more complex. How does abiogenesis work around this?

**The following questions presented here are from the introductory comments to a blog posted at ctotim.com.**

9. Modern chemical plants require extensive feedback mechanisms to control ratios of input chemicals and environmental issues such as temperature and pressure. Without proper feedback, the proper products are not made. Current models of abiogenesis require conflicting chemical chemistries to develop at different locations and then spontaneously flow into common mixing ponds. As discussed above, natural environmental conditions fluctuate wildly. Living cells use extensive feedback mechanisms to maintain proper ratios of required chemicals and cellular environmental conditions. Feedback mechanisms in industry require intelligent design and fabrication. How do abiogenists propose the appearance of feedback and control mechanisms that would be required to get the proper ratios of chemicals into a mixing pond using stream flow? Is a flowchart available that can illustrate the steps required for randomizing, step-by-step processes to develop feedback control for any stage of abiogenesis? How could it be implemented before replication of genomic information is possible? How can a genome be parsed into separate genes before feedback control? If feedback systems in a chemical plant require intelligence to design and implement, does this not provide a reasonable model of how to implement feedback for initial cellular fabrication? Any alternatives?

10. How can randomizing, undirected, step by step processes “debug” a cellular information-driven machine, one that is almost functioning but isn’t? Computer design engineers use specialized debug equipment operated by intelligent beings along with a design specification to allow them to interpret what works and doesn’t. Even so, it typically takes longer to get rid of a few final “bugs” than to do most of the design. A living cell is a dynamic organism, decaying in minutes, not years, if it is not fully functioning. How could unguided, randomizing, step-by-step processes introduce “debug” changes into genomic information and cellular hardware before cellular life has started? This reasonably appears to be an impossible barrier to cross. Can you explain why it isn’t?

11. If abiogenesis represents pseudoscience in its methodology, does this render materialism a mere scientifically unsupported philosophy? What implications would this have for non-scientific fields of study in a modern university? Currently they assume humanism and materialism to be true because science reputedly shows them to be fact. What are the implications if this assumption is wrong?