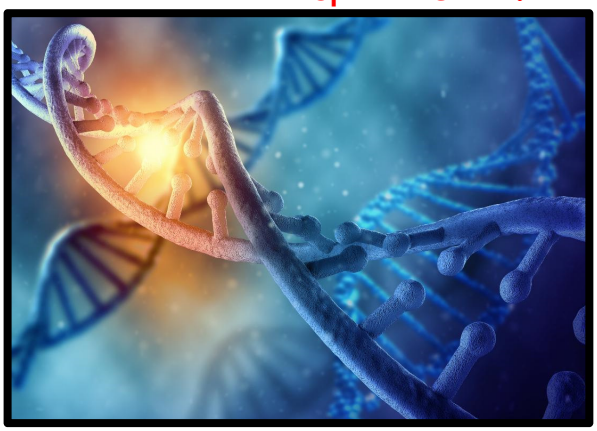
CQRewind SHOW NOTES

Does Science Prove Intelligent Design?

Psalm 19:1: (NASB) ***The heavens are telling of the glory of God; and their expanse is declaring the work of His hands.***

Special Guest: David Stein



Atheists will tell you that there is no scientific proof of God nor can there be. They have a materialistic view of the universe that, by definition, excludes God. Though this philosophy is pervasive in the world today, there is much evidence that reveals a great deal of willing ignorance in that belief. Is science the only source of truth? Does science really validate godlessness? The objective of our program this evening is to review a number of scientific ideas and questions that demonstrate the other side of the argument; namely, that a super-intelligent Creator is behind the existing of this universe and all life.

(Commentary has been edited for brevity and clarity. David's comments are in purple.)

To tackle this subject, we had to bring in one of our own favorite science people to help us out. David Stein is back with us after several years. For those of our audience who do not know who you are, give us a little background.

I am here because of my interest in the Bible. The Bible, of course, is the most important book we have in our spiritual lives. I am an elder with the Allentown Bible Students in Allentown, Pennsylvania. As far as science is concerned, I have had a love and interest in science all my life.

Now, let me be very plain. I am not a scientist. I am, however, an engineer. As part of my engineering education, my studies included science and mathematics. The technology and information part of science is included in my background as well.

I was raised Catholic and spent several years with the Jehovah's Witnesses, but I felt there was not a good fidelity to the Scriptures there. I then moved on to the Associated Bible Student movement, a non-sectarian group of students of the Bible existing around the globe. I have been very, very blessed by my association within that group. I like the non-denominational aspect of it, that we can share our thoughts and results of our studies and not feel compelled to accept the ideas of some group or some dogma, but we can draw our own conclusions based on what the Bible teaches.

We share that same enthusiasm with you. I have known you for a long time; when we were a lot younger and used to play basketball together.

That is right, Rick. We go back to the late 1970's.

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Today will be a very different Christian Questions, because typically we have a very clear, Bible-based conversation throughout our podcast to develop our points and reasoning and to build foundations. Today, we are not going to rely on Scripture. Since we are talking about science and Intelligent Design, we wanted to give our listeners a podcast that would be readily usable for someone who does not believe in the Bible. We want to look at science and intelligence in terms of design to see if, in fact, they do mix. We will quote only a few Scriptures throughout the entire podcast and will let science do the talking.

Let's get started. We already alluded to the idea that we wanted to start our scientific exploration with the biggest thing we could find - the universe.

Part 1: The Large Picture – Examining the Universe

We can apply scientific rationale and logic to answering this question.

1. The universe is either FINITE or INFINITE. One or the other is true.
2. If it is infinite, it does not require a Creator. This was the view of many in the ancient world.
3. However, current scientific thinking is that the universe had a beginning called the Big Bang theory.
4. If the universe had a beginning, the inescapable conclusion is that the cause of its existence had to be something OUTSIDE of the universe.

This is a simple deductive logic based on the principle of cause and effect.

Conclusion on the finite universe: If the universe is finite, it had a beginning. It would require something outside of the universe to create it. That is a scientific fact.

Then there has to be an external cause in order for this finite universe to begin. What is the scientific understanding of this particular cause?

When we say "the universe," what do we mean? We mean the space in which all the stars and galaxies and other materials within the universe exist, but we are also talking about the time within the universe. Cosmologists and physicists call this "space time," because Einstein showed, in his relativity equations, that space and time were inextricably linked.

1. "Outside the universe" would be outside of space and time. Therefore, it would be space-less, immaterial and timeless.
2. It would also have to possess incredible power, beyond the power of our current universe. The idea of the Big Bang is everything started from this primordial point of mass and energy that exploded to create everything. This would require incredible power. A cause must always be greater than its effect.

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Does a cause which is timeless, space-less, immaterial and of immense power sound like any concepts we have now?

It sounds like God to me.

It does sound like God. Up to this point we have used only what is based upon scientific fact and logic.

Hebrews 11:3: (NASB) *By faith we understand that the worlds were prepared by the word of God, so that what is seen was not made out of things which are visible.*

What is seen is made out of things which are outside of what we see and understand.

This is objective in its rationale. It is the atheists who have a more difficult burden of proof than theists do. Up to this point, we have stayed way within the boundaries of science in drawing our conclusion.

We will quote a few writers about the universe. The first will be Luke Barnes, a non-creationist astrophysicist, who is a Postdoctoral Researcher at the Sydney Institute for Astronomy, University of Sydney, Australia.

We want to set a foundation for these quotes. Atheists have come up with the idea that it is possible to have something from nothing. This is one of the two answers they have to the conclusion we just reached that the first cause was outside of the universe.

There was a scientist by the name of Dr. Lawrence Krauss who wrote a book in 2012 called *A Universe from Nothing*. In the book he argues that everything came about from quantum fluctuations. Basically, he argues that you get something from nothing and wrote a whole book on it. The quotes we are going to look at here are rebuttals from other scientists, and this is important. This is not just Dave Stein saying that Lawrence Krauss is all wet. I'll say that, but there are other scientists who say that his philosophy does not hold water.

(Source: Luke Barnes, a non-creationist astrophysicist who is a Postdoctoral Researcher at the Sydney Institute for Astronomy, University of Sydney, Australia) This is nonsense. The word nothing is often used loosely - I have nothing in my hand, there's nothing in the fridge, etc. But the proper definition of nothing is "not anything." Nothing is not a type of something, not a kind of thing. It is the absence of anything.

Barnes says quantum fluctuations are *something*, which invalidates Krauss' whole argument.

(Source: Edward Feser, Associate Professor of Philosophy at Pasadena City College) The spate of bad books on philosophy and religion by prominent scientists…is notable not only for the sophomoric philosophical and theological errors they contain, but also for their sheer repetitiveness. Krauss' fallacious account of how something can come from nothing, though presented as a great breakthrough, and praised as such by Dawkins in his afterword, is largely a rehash of ideas…

(The rest of the quote not read on air) …already put forward by Hawking, Mlodinow, and some less eminent physics popularizers. Dawkins has been peddling the "Who created the Creator?" meme since the eighties.

Critics have exposed their errors and fallacies again and again. Yet these writers keep repeating them anyway, for the most part simply ignoring the critics. What accounts for this? To paraphrase a famous remark of Ludwig Wittgenstein's, I would suggest that a picture holds these thinkers captive, a picture of the quantitative methods of modern science that have made possible breathtaking predictive and technological successes.

Dr. Feser is saying this is just another one in a long string of bad books on philosophy. Krauss is arguing not scientifically. What is the scientific basis for saying something comes from nothing? It is not intuitive, and there is no scientific evidence for it.

You are saying the idea of something coming from nothing, which some atheists say about the origin of the universe, has no scientific basis.

Exactly. It is not scientifically-based at all. Therefore, they are trying to espouse just a philosophical perspective.

One more quote from David Albert, who has a doctorate in theoretical physics and also reviewed Krauss' book:

(Source: David Z. Albert, Ph.D., Frederick E. Woodbridge Professor of Philosophy and Director of the M.A. Program in the Philosophical Foundations of Physics at Columbia University, New York) Where, for starters, are the laws of quantum mechanics themselves supposed to have come from? Krauss is more or less upfront, as it turns out, about not having a clue about that. He acknowledges (albeit in a parenthesis, and just a few pages before the end of the book) that everything he has been talking about simply takes the basic principles of quantum mechanics for granted.

(The rest of the quote not read on air) Krauss seems to be thinking that these vacuum states amount to the relativistic-quantum-field-theoretical version of there not being any physical stuff at all. And he has an argument - or thinks he does - that the laws of relativistic quantum field theories entail that vacuum states are unstable. And that, in a nutshell, is the account he proposes of why there should be something rather than nothing.

But that is just not right. Relativistic-quantum-field-theoretical vacuum states - no less than giraffes or refrigerators or solar systems - are particular arrangements of elementary physical stuff. The true relativistic-quantum-field-theoretical equivalent to there not being any physical stuff at all isn't this or that particular arrangement of the fields—what it is (obviously, and ineluctably, and on the contrary) is the simple absence of the fields! The fact that some arrangements of fields happen to correspond to the existence of particles and some do not is not a whit more mysterious than the fact that some of the possible arrangements of my fingers happen to correspond to the existence of a fist and some do not. And the fact that particles can pop in and out of existence, over time, as those fields rearrange themselves, is not a whit more mysterious than the fact that fists can pop in and out of existence, over time, as my fingers rearrange themselves. And none of these poppings - if you look at them aright - amount to anything even remotely in the neighborhood of a creation from nothing.

This is interesting because Dr. Albert is pointing out that the laws of physics are not "nothing." Maybe Krauss is assuming that the laws still exist there and then account for the quantum fluctuations, but Albert says it is ridiculous. If there is nothing, then there are no laws of quantum mechanics. There are no quantum mechanics. There are no quantum fluctuations, nothing, nothing, nothing, and that is where the whole argument falls flat.

In summary, the universe has to have come from something, and those who have proposed that it comes from nothing are using a philosophical approach, not a scientific one.

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Conclusion on the universe from nothing argument: As we have seen on the basis of well-constructed rebuttals from other scientists in the field of physics and philosophy, we can conclude it is not scientific to assert that something comes from nothing. This is pure philosophy, which leaves us with the conclusion that there *was* a FIRST CAUSE.

So, the universe had a beginning. Did it have a destiny, or was its existence a result of random activity?

While establishing a starting point is important, understanding the "why" behind what happened next really puts the big "universal" picture in perspective. As we move through this next segment, we want to pay objective attention to facts while leaving our feelings and preferences behind.

The next piece of scientific evidence we want to consider is the apparent **DESIGN** of the universe.

We say "apparent" because we want to stay with the scientific evidence to draw conclusions. Science advanced over the centuries by using sound principles. Evidence is reviewed and reasoned upon. Science is a result of coming up with ideas explaining the evidence.

Does the universe have a destiny? If it does, this means it had to be created with certain constants to allow it to develop in a way that would support life. We are going to assert - this is not scientific - that the universe was created for man. If that assertion is true, what is the scientific evidence to back it up?

Let's start with something called "Physical Constants."

(Source: Wikipedia) A physical constant, sometimes called a fundamental physical constant or universal constant, is a physical quantity that is generally believed to be both universal in nature and have constant value in time. It is contrasted with a mathematical constant, which has a fixed numerical value, but does not directly involve any physical measurement.

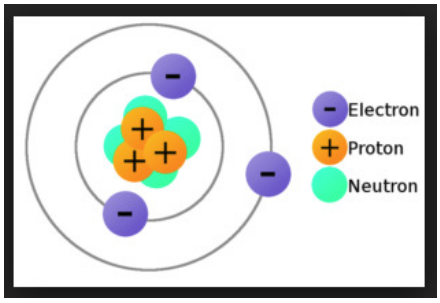
Example – the speed of light: Everywhere in the universe, light travels at about 186,000 miles per second. Because it does not change anywhere, we designate it as a CONSTANT. (As a caveat, it *does* change when it is not going through a vacuum. When it goes through air or water, it does change a little bit, because the medium slows it down. But in a vacuum, where there is nothing interfering with it, it is the same everywhere in the universe.)

When we start with the apparent design, we have to have physical constants to give us building blocks.

That is right. Physical constants specify the laws under which the universe is built. They are necessary for the universe to operate and be explained.

The stability and operation of physical laws in the universe regulates how the universe works, what it can be and what it cannot be. What has befuddled atheists is the fact that many of these universal physical constants have to be a certain value in order to produce a universe where life can exist. It is the incredible precision of these constants that challenges the idea that this universe came into existence by chance.

Example: The ratio of protons to electrons in the universe is one to 10^{37}.



All of the items in the universe are made of three particles: a PROTON, NEUTRON and ELECTRON. Protons have a positive charge, electrons have a negative charge and neutrons are neutral. When we build a battery, we separate those charges out on one side or the other to produce a charge to make electricity.

If the universe did not have an *equal number of protons and electrons*, it would produce an electrical charge. The nearly identical numbers of each cancel out the charge to make the universe, at large distances, electrically neutral. If the ratio were larger, electromagnetism would dominate gravity, preventing galaxy, star and planet formation. If it was smaller, the same effect would occur.

The precision with which these two objects exist in the universe is 1 in 10 to the 37th power, meaning the difference in the number of protons and electrons is 1 unit to 10 to the 37^{th} – it is that tiny. Let's say we had 10 protons and 117 neutrons…

Who counted these?

That is a great question. They are calculated by understanding how much mass is in the universe. But the idea here is that if they were not equal, there would be either a negative or positive charge in the universe, and that would interfere with everything that came about afterward. The whole development of the universe would be either stopped or thwarted. It would not allow the creation of galaxies, stars or planets.

If we did not have an equal number in the entire universe, things would fall apart? There would be chaos?

That is right. It would not result in a universe habitable for human life.

And we are not talking just a few little protons and electrons. We are talking about a number that is incomprehensible.

To get a feeling for how precise this balance is, consider the following illustration from Dr. Hugh Ross, a scientist who is also a Christian:

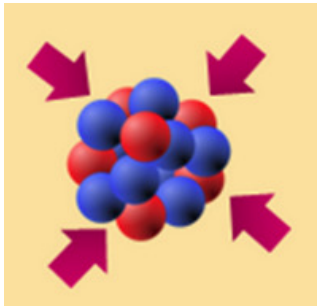
Cover the entire North American continent in dimes all the way up to the moon. (In comparison, the money to pay for the U.S. federal government debt would cover one square mile less than two feet deep with dimes.) Next, pile dimes from here to the moon on a billion other continents the same size of North America. Paint one dime red and mix it into the billion piles of dimes. Blindfold Jonathan and ask him to pick out one dime. The odds he will pick the red dime are one in 1 to 10^{37}.

It means if you had an imbalance of protons and electrons equal to that one dime, the universe could not exist as we know it. If it is off by that tiny, minuscule amount, it could not exist.

This is just one of about 60 different constants physicists have found that have precisions on that order or even more precise.

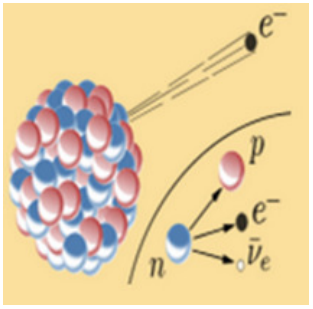
That gives us a sense of order, which gives us a sense of intelligence. And this is only one of the parameters that is so delicately balanced to allow life to form!

FOUR FUNDAMENTAL FORCES



1. The Strong Nuclear Force: The force that binds the protons and neutrons together in the nucleus of an atom. This is the force that is released by an atomic bomb.
   - If it were weaker (by 1 part in 10,000 billion, billion, billion - or 10^{-40}) = no elements except hydrogen could exist.
   - If it were stronger = only heavier elements would exist. There would be no hydrogen, and therefore no life.

This strong nuclear force again has to be utterly, incomprehensibly precise.

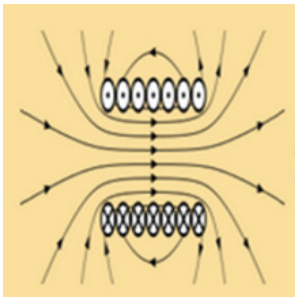


2. The Weak Nuclear Force: The force that regulates the rate of radioactive decay and turns protons into neutrons in the sun. A radioactive atom spontaneously expels the neutron.
   - If it were weaker = no heavier elements, no supernovas.
   - If it were stronger = not enough heavier elements; life's chemistry would be impossible.

Why are supernovas important? All of the elements on this earth that are heavier than hydrogen were made in a supernova. In other words, in its life cycle, a star starts to produce these heavier elements at its core. Eventually the star becomes unbalanced and it explodes into a supernova, spreading these heavier elements of carbon, oxygen and nitrogen throughout the cosmos.

We literally have the elements of supernovas within us. If this weak nuclear force did not exist in its exact proportion, there would have been no supernovas. Therefore, there would have been no elements of creation, and therefore, no humanity.

3. The Gravitational Force: The attraction between all matter in the universe.
   - If it were weaker = no fusion and no heavier elements.
   - If it were stronger = stars burn too hot and fast – short lifespans. We would not have the elements needed for life.
4. The Electromagnetic Force: The attractive and repulsive force in electricity and magnetism.
   - If the electromagnetic force between protons and neutrons (producing electromagnetic repulsion and attraction between molecules, making the chemical bonds necessary for life) were weaker = no chemical bonding – no life.
   - If it were stronger = heavier elements are unstable and break down – no life.
   - Balance of electrons (- charge) to protons (+ charge) crucial to 1 in 10^{37}.



Does this prove that God exists? What it proves is that we live in a universe uniquely fit for human life; that if it wasn't in this VERY improbable way, we could not have life. What do we conclude? Is this probable? Is this just coming about by chance? No, we use logic at this point. We look at the scientific facts and we say it certainly seems like the universe was made for life.

All of these ratios between these four fundamental forces in the universe have to be incredibly exact, or life could not exist.

Absolutely right. We only looked at four of them, but there are about 60.

Do we look at these physical constants and say they happened all by chance or design?

Fred Hoyle was a well-respected astrophysicist from Great Britain. He was also a very well-known and self-proclaimed atheist. But when he began to see how precisely these physical constants were defined - and he was somebody who studied them and knew them – here is what he wrote:

A common sense interpretation of the facts suggests that a super-intellect has monkeyed with physics, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature. The numbers one calculated from the facts seem to me so overwhelming as to put this conclusion almost beyond question.
— Fred Hoyle (British astrophysicist)

I do not know if this is an admission on the part of Fred Hoyle that there is a God or a non-god super intelligence that created the universe, but nevertheless he says it is almost an inescapable conclusion.

What are the atheists saying with regard to this fine tuning?

The Multiverse Theory: Many atheistic scientists find the fine-tuning conclusion unacceptable, not for scientific reasons necessarily, but more for philosophic reasons. In grasping for other reasons to explain the facts, they have theorized that there must be an infinite number of universes, and ours happened to hit upon the right combinations of constants and other factors to make human life possible. *There is no science to validate this.* It is only a guess and a philosophy – not science.

When you look at it from a logical standpoint it sounds silly, because if this universe has so much complexity to it, to have an infinite number of universes, we are multiplying the complexity astronomically.

The universe in its massiveness shows extraordinary design!
What about the little tiny things in life?

The bigness of what we have seen is nothing less than breathtaking. Let's now dig deep into the small and microscopic world that surrounds us on all sides and at all times. The precision and grandeur we will see here is just as stunning in its invisibility as the stars of the heavens are in their bright power.

Part 2 – The Evidence for Design in Biology

How did life begin?

If you ask any honest scientist in molecular biology, the answer would be, "I do not know." They do not know. They are coming up with ideas, but as quickly as the ideas come up, they are swatted down by other problems.

There is no life without DNA. In the cells of every living creature there is a computer program. There is a set of instructions in the nucleus of every cell that describes how to build all of the necessities of life. There are many necessities - to be able to process food, the ability to breathe, to take energy, create energy, build protein, build structures - all of this is mediated by DNA. DNA stands for deoxyribonucleic acid. It is a long-chain molecule that has the instructions for keeping a cell alive.

DNA is like a computer program but far, far more advanced than any software ever created.
— Bill Gates (in his book, The Road Ahead)

From a scientific standpoint, we never observe life coming from non-living chemicals. NEVER. All of the atheistic scientists are left with is that somehow the right combinations came together to form the first living cell with the DNA to reproduce. When asked how this could happen, they all say, "Well, we do not know." But, again, if you eliminate God, this is all you are left with. You have to say, "Well, somehow it happened."

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No life from non-life, *Unlocking the Mystery of Life, Dr. Paul Nelson, Origin*

- *(Narrator) Amid the spectacular diversity, perhaps the greatest challenge ever faced by science echoes from every insect, redwood and whale. How did the first life arise at a moment in time when there was no life of any kind? How did life on earth begin?*
- *(Nelson) Where do we start, I mean there are dozens of theories, and you find you've got this wild diversity of viewpoints, many of which are mutually contradictory. To even begin to try to crack the mystery, you have to supply assumptions about what must have happened in the distant past. There's no direct evidence, because no one was there to witness the event and there's virtually no fossil record. What we never observe, ever, is non-living chemicals forming a cell. So, in a sense we have a field of research where the important action has already happened.*

It should be understood that many scientists try to define science in such a way as to exclude any explanations that do not meet their contrived criteria.

From a scientific standpoint, we try to take what evidence we have seen of the way things work today and push them back to see how it might explain how things happened in the past.

For example, we look at a piece of soil around Mt. Vesuvius in Pompeii, Italy, and from that soil, dust and ash conclude a volcano erupted there. We might be able to determine how large the eruption was from that evidence. Dr. Nelson is saying we only see life coming from life today, never life from non-life. From a scientific method standpoint, there is nothing to explain how life from non-life could happen.

Scientific materialism, *Unlocking the Mystery of Life, Dr. Paul Nelson, Origin*

- *(Narrator) Most scientists believe that life started when energy sparked non-living matter in the planet's oceans, crust and atmosphere to create building blocks for the first self-replicating cell.*
- *(Nelson) When you come to the origin of life, the rules (and this isn't the science itself - this is the underlying philosophy) say to solve the problem you can use matter and energy, and natural law, natural regularities in chance processes, but that exhausts your toolkit. What you are not allowed to use fundamentally by the so-called "rules" of science, is mind or intelligence. If you had to attach a name to this position, you can't do better than "scientific materialism," the philosophy that tells you the only acceptable explanation has to be rendered in terms of matter and energy. And if you can't solve the problem using those tools, you are not allowed to change the rules, so from that perspective how did life come to be via matter and energy alone? Now, try to solve the problem.*

Scientific materialism is a severe constraint to plausible explanations of life.

Scientific materialism is the system of arbitrary rules made up by many atheistic scientists that say you cannot invoke anything outside of scientific law to explain things. In other words, by this rule, God is automatically excluded.

So Intelligent Design, therefore, is excluded.

That's right. They say it is outside of the rules.

Because Intelligent Design, you said earlier, is before and outside of the universe, and therefore not bound by the rules of the universe. Because the universe did have a beginning, it cannot be bound by the rules because it made the rules.

That's one way of putting it! In this particular case, scientific materialism is like a straitjacket on trying to explain how life came about, because as Dr. Nelson pointed out, how are we going to do that? We do not have evolution yet, because evolution only works when we have reproduction. We have not gotten that far yet. All we have is an unknown environment sometime in the past that somehow, against all odds, put together a cell by chance.

You say "against all odds" very casually, but when we talked about the numbers earlier, the odds are as close to impossible as you can get, because the probabilities are so enormous.

Back in the 1950's, there was an experiment by Stanley Miller who said, "If I could produce an environment like that which existed when life came about and produce some changes that gave rise to the fundamental elements of life, maybe I can prove that at least we can make the building blocks."

He filled a glass flask with gases he assumed were in the early atmosphere like methane, ammonia and hydrogen. He then ran an electric current through it like a lightning bolt for several weeks. Then he evaluated what was left in that soup. His results were like a milestone to the life-by-chance scientists, because he found in there many compounds and amino acids, the very basic building blocks of life, were actually produced. His results were heralded as a milestone in demonstrating how life began in the ancient past.

However, later scientific advances strongly showed that Miller's assumptions about the atmosphere were incorrect. For example, the atmosphere consisted of neutral gases, including carbon dioxide, nitrogen and water vapor, as well as free oxygen, which Miller assumed were not present. Thus, this new geological and geochemical evidence implied the prebiotic atmosphere conditions were so hostile to life, not friendly to the production of amino acids and the other essential building blocks of life, they could not come into existence.

There is no current theory describing how the earliest chemistry for life came into existence.

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DNA information, *Unlocking the Mystery of Life, Steven Meyer, Origin*

- *(Narrator) The existence of complex biological machines raises an obvious question: If natural selection wasn't the agent of their construction, then what was? The centerpiece of my investigation was an interview with Philosopher of Science Doctor Steven Meyer. Meyer, who holds a Ph.D. from Cambridge University, brought me face-to-face with the most efficient information processing system in the universe: the DNA molecule and its language of life.*
- *(Meyer) The discovery of the information-bearing properties of DNA and RNA is a fundamental challenge to all materialistic theories of the origin of life. Neo-Darwinism and its associated theories of chemical evolution and the like, will not be able to survive the biology of the Information Age, the biology of the 21st century.*

Let's talk about information density of DNA. Most everyone has used a thumb drive on a computer. When the thumb drive first came out, it could hold around 50 or 100K. As technology advanced, we now have thumb drives that can hold 256GB.

The most efficient information encoding system is DNA. DNA is microscopic and exists in every part of our cells. The DNA strands just within one of our cells would be enough to fill maybe 30 volumes of an encyclopedia. This is how much information is in one cell.

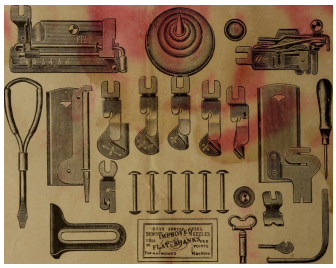
One of Dr. Meyer's points here is that DNA is information. From where do we get information? Does information come about randomly by itself, by chance? The answer is no. In our unified experience in everyday life and in all science, whenever we find information, it has come from an intelligent source. If we look at DNA as information, how can we ever extrapolate that it just came about by random chance?

The important thing is, all of science looks at DNA as information. They look at it as this incredible information source. As a matter of fact, they try to manipulate the information to create a different result. What you are saying is, information does not get logged and stored in such an amazingly microscopic way just because something happened by accident.

That is right, and since DNA is made of molecules you can start to put a number on, you could come up with very accurate mathematical equations of what the probability is that any given strand of DNA that could come together by chance could happen. It is exceedingly small. Just any combination of these components of DNA will not work. Every strand of DNA is highly specified, just like a computer program. I have worked with computer programs and developed them. If you have one instruction wrong, it often times is enough to kill the whole thing. That is true of DNA as well. If you just get one thing wrong, you are going to have problems with the operating system.

It is a masterpiece of efficiency in information processing. Does that come by chance? Does that come by accident? Does that come because it just happened to grow out of nothing? Do we write encyclopedias out of nothing, or are they compiled meticulously to create something logical and sequential? This is what you are saying about DNA.

It is not scientifically plausible, and yet this is the corner atheistic scientists have backed themselves into. They have to take that position because they have already ruled out an intelligent source of that information.



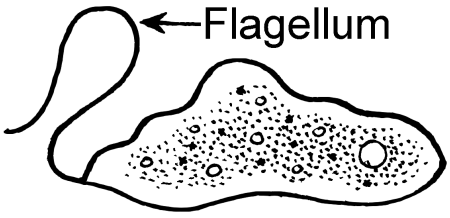
To build a single cell or a multi-cell organism, you need a plan. Like any plan we use today, it must include a precise and sequenced set of instructions. This includes not only the assembly sequence, but the methods to bring in the right materials at the right time. It must also include how to get the energy necessary to proceed with the assembly and the removal and disposal of unneeded waste materials. Sounds complex? It is exceedingly complex and still not understood in most of its details by modern scientists.

Here are examples of tiny, microscopic machines existing within a cell that are necessary to its survival.

1. Electric Motor – the Flagellum

Nanotechnology in Cells - Flagellum, *Video Revolutionary*

- *Perhaps the most amazing propulsion system on our entire planet is one that exists in bacteria. It is called the flagellum, a miniature propeller driven by a motor with many distinct mechanical parts, each made of proteins. The flagellum's motor resembles a human-designed rotary engine. It has a universal joint, bushings, a stator and rotor. It has a driveshaft and even its own clutch and breaking system. In some bacteria the flagellum motor has been clocked at 100,000 revolutions per minute. The motor is bidirectional and can shift from forward to reverse almost instantaneously. Some scientists suggest it operates at near 100% energy efficiency.*



Here is something as minuscule and complex inside of bacteria, begging the question if this could possibly come about by chance, or was it designed? When we design motors and cars, we think we are really smart. The bacteria is smarter than we are!

Moving from atheists to evolutionists, here are some of the challenges evolutionists have in trying to explain how this came to be. Darwin's theory of evolution by natural selection says that evolution proceeds by small variations acted upon by chance to select them out. It does not proceed with any plan. It has no plan, no foresight. It just acts on what is there.

When you look at the flagellum, which looks very much like a modern-day motor, in order to produce this, the DNA not only has to make the parts, but it has to have an assembly plan.

In manufacturing, when you produce things, it goes through the manufacturing cycle. Operator A does this, Operator B does this and all the way through. The DNA has the assembly instructions as well as making the parts. This certainly sounds like foresight, and that is exactly the thing evolutionists will not or cannot admit. So, the existence of this precise motor, this incredibly efficient thing is such a challenge. Just looking at it objectively, there has to be a designer.

As amazing as the flagellum is, which is inside of bacteria, let's go to the kinesin.

2. Microscopic Horse – the Kinesin

Meet the Kinesin, *Video Revolutionary*

- *Meet the kinesin. Master pieces of microengineering, kinesins are miniature motorized machines that carry cargo from one part of the cell to another, walking along self-assembling highways called microtubules. Known as the workhorses of the cell, kinesins have two feet, or globular heads, that literally walk one foot over another along the microtubule, pulling their cargo to its destination. Each foot possesses two special locations called "binding sites" that interact with other molecules. One site attaches to the microtubule and the other binds with ATP, the energy molecule of the cell. When one foot binds with ATP and uses its energy, the foot flips over, resulting in a walking motion. Each foot has a short neck which is connected to a strand of a long coiled stock. At the end of the stock is a fan-shaped tail which holds tightly to the cargo being transported. Kinesins can carry cargo that are many times their own size.*

There are several great YouTube videos to watch demonstrating how this works, as the audio description cannot convey the beauty and awesomeness of seeing the animation. It literally walks. A foot lays down that attaches for a certain amount of time. The other foot goes out in front. Then the first foot loses its energy, flips up and naturally goes to the next one.

The highway creates itself as it moves. This is happening inside of our cells.

That is right. Again, going back to the illustration of the factory, when I worked in a factory, we had what we called transport people. You would have to transport materials from one end of the factory to the other. You would have to transport the raw materials that created whatever it was you were manufacturing. It would then go to the packing area and other parts of the factory.

The cell works the same way. It is like a little city, a little manufacturing plant. But to see this tiny kinesin in operation, knowing we have it in our own bodies is awesome. To say this came about by accident is counterintuitive. It seems so obviously and awesomely planned and designed.

In microbiology, look at the order, design and operation. Look at how clearly they function with all of their moving parts on this cellular level. Could this happen randomly or was it designed?

Intelligence abounds in the heavens and in the miniscule.
What about everything else in between?

Having seen and appreciated both ends of the creative spectrum, let's now plant ourselves right in the middle. What we will find is no surprise, since the complexity, order and intelligence seen in the extremes certainly dwells in everything else. We are, as the Bible says, *fearfully and wonderfully made*. (Psalm 139:14)

We have looked at the big picture of the universe and the tiny microscopic cell. Now we are going to look in the middle, starting with the monarch butterfly.

The Monarch Butterfly

This species of butterfly distinguishes itself from other butterflies in at least three categories:

1.) It lives longer.

2.) It travels farther.

3.) It has a wider distribution over the earth than any other butterfly.

There are things about this butterfly that really have scientists scratching their heads trying to figure out how such an insect could come into existence.

The Four Developmental Stages in the Monarch Butterfly Life Cycle

1. The egg
2. The caterpillar (larva)
3. The pupa (chrysalis)
4. The emergence of one of the most beautiful creatures on earth

This is a complete change of body plan. Looking at a caterpillar and a butterfly – there is nothing similar about them. It is hard to believe they are of the same species. The monarch travels all the way down to Mexico as part of its life cycle. Let's explain the whole migration.

It lives for about two to four weeks, during which time it feeds, breeds and dies during the summer. The last generation born in August is the fourth or the fifth generation. Instead of dying in two to four weeks, it lives for nine months. It has a completely different life span than the generations that went before it. In fact, they call it the "Methuselah" generation. It is this generation that flies for thousands of miles to its wintering location in the mountains of Mexico about 3,000 miles away. It is hard to believe the butterfly could travel so far. Then these butterflies cluster in trees at an altitude of 9,000 to 11,000 feet for about four months in freezing temperatures.

They survive the freezing. They are there from November to March through the winter. This period is a time for them to hibernate and conserve their energy. They eat and drink very little during this time. It enables some of them to live even longer than that.

In the spring, they start to march forward, migrating from Mexico northeastward to the United States, and some go in some other directions. They return long distances to where they were born. Sometimes they fly only a part of the distance to Texas and the lower states and then reproduce. Then the next generation moves on a little bit further and then the next generation a little bit further until they get back as far north as Ontario, Canada.

The last generation does not develop its reproductive organs before it begins its autumn migration to Mexico, which is very interesting. These others reproduce, reproduce, then they get to their summer grounds and reproduce some more. But this Methuselah generation is immature in terms of reproduction, and that is the one that flies all the way down and lives sometimes up to nine months.

How does a butterfly fly 3,000 miles and then its offspring generations later knows to go back to where it was born? How does a butterfly know that?

It has that information as part of its genetic makeup. How does it know? It had to be programmed in there somehow. Common to all butterflies, the monarch goes through a metamorphosis from a caterpillar into a butterfly where all of the internal organs of the caterpillar dissolve then reassemble themselves. It recycles everything very efficiently.

From a scientific standpoint, what can we develop to explain these facts? There are two choices: either all of what we have been discussing came about by accident, by sheer chance, and that is hard to prove, or we can say that there was a designer who made it happen.

Without getting political, when climate change is discussed, some are accused of being a "science denier." I would take that phrase and ask, are we denying what science is telling us by not allowing intelligence to be behind these amazingly incredible things we have been talking about?

We just heard an audio clip from Steven Meyer. He has written several books defending repeatedly that the scientific theory of Intelligent Design does not invoke "God." He says a clear and unbiased look at the facts suggests an intelligent designer. Most of those who subscribe to that theory believe that designer is God, as we do. We are not trying to hide anything. But we are trying to keep in the realm of science to say that this is a scientific deduction based on our everyday experience and the way we see things happen everywhere else today.

When we see a car drive by, we do not think, "Oh, look what randomly popped out of the ground one day!" We can trace it back to its design and when and where it was built. Why don't we do the same with things that are far more complex?

The question is, if God created the universe, who created God? Where did He come from?

Let's go back to the start of this podcast. Where did the universe come from? We concluded that since nothing comes from nothing, there had to be a first cause that was outside of the universe, both in terms of its space and time. Even the idea of beginning here is a little hard. What happened before the universe began?

From a scientific standpoint, we say there was no time because there was no universe. So, the question does not really have any meaning. We would say

the same thing with God. God is outside of the universe; therefore He is outside of space time; therefore He is outside of time.

To ask where God came from is the same as asking, "Where did this first cause come from?" It is timeless. There is no answer to it, but it is the same thing - there still has to be an existence of this first cause, whether you want to call it God or something else.

Science instituted those rules. It is bigger than the rules.

That is right. We can sort of imagine if there is no three-dimensional space; we can wrap our minds around it. It is much harder to wrap our minds around the idea of there is no time. You see the dilemma. It is the same dilemma science would have.

Part 3 – Human Beings as a Privileged Species

One of the things we have observed is that the universe seems to be especially made and designed for human life. When we talked about the physical constants, all those constants are so finely tuned, and if they were not, we could not have human life. As Fred Hoyle said, "Somebody has monkeyed with the physics to make that happen." As we see the universe and how specifically designed and fitted it is for human life, we become astonished.

How is the universe specially fitted for human life?

- Heavier elements necessary for life were made in supernovas, specifically carbon, oxygen, hydrogen – the basic elements of life. (We are truly "star stuff.")
- Carbon is a key essential of life. It has the capacity to form a virtually infinite number of compounds for life. Carbon atoms are the only atoms that can build lots of complex chemical compounds. No other element can substitute for carbon.
- Carbon compounds are only stable in a narrow range of temperature – the range found on earth.
    - If the temperature was higher, the carbon compounds would not be stable.
    - If the temperature was lower, the carbon chemistry would be too slow for higher life.
    - Carbon is the basis for natural gas, petroleum, sugar, plastics and millions of other known compounds.
    - Silicon as an alternative? No, only in sci-fi.

For example, water is 75 percent of our planet. But one of the most important and interesting qualities of water is the fact that when you cool it, it expands. Let's think about what the implications of that are. Let's say like most other things water shrank when it got cooler.

Cooling it down makes the atoms come closer together, and so they get smaller in size. If that was true of water, what would happen every winter? The ice would get smaller, denser and would sink to the bottom of the lake. The bottom of the lake will be quite a distance from where the sun and the warming air are, so it would probably stay frozen as it gets down there. The next winter you would have that same process repeated. It would fall, fill the lake, and after a certain many iterations, you would have a permanently frozen lake. However, water does not act that way. Water expands. It gets lighter. It gets less dense.

This is contrary to most other things. Almost every other liquid behaves the way we described earlier, getting smaller in size and denser. Water gets *less* dense. That means it floats. That is why an iceberg floats. That is why the ice in your soda comes to the top. That means we do not have a permanently frozen situation on earth. That would not permit life.

The properties of water are contrary to the properties of most other liquids in terms of heat and cooling, thereby permitting life.

Let's take that a little further. There is a natural cycle on the earth where we have lava and a crust that is pushed up by tectonic plates into mountains. Those mountains start to dissolve and break down the freezing of water at that higher temperature and help the rocks break down. They free up all kinds of nutrients and minerals plants need in order to grow. That freezing cycle of water, as well as the ability of water to dissolve almost everything, is part of the continually refreshing of the earth for life. And, I will add, for human life.

Again, chance or design? This is the question we must continually come back to, because science screams that there is an incredibly intricate, wonderful, powerful and clear design.

- Water – the driving force of nature
    - 75% of the surface of our planet is water.
    - It is a universal solvent – dissolves almost anything, and therefore is perfect for conveying the essential chemicals of life in a living system.
    - Water itself is less reactive than most other solvents – thus it dissolves minerals without destroying them.
    - The low viscosity of water, one of the lowest of any common liquid, is just right for life.
    - Lower the viscosity = the delicate microscopic structures of our body would not survive when subjected to outside forces.

- Raise the viscosity = would not convey the necessary oxygen and glucose through our capillaries and could not be used in our blood system.

- Thermal properties of water
  - Water has a most unique heat capacity which is required for heat regulation and maintaining stable temperature.
  - Evaporative cooling of water is more than almost any other fluid – getting rid of excess heat and cools us. No other way to get rid of heat from our bodies. No other animal has the ability to get rid of heat as efficiently as humans.
  - Peculiar behavior when freezing – water expands when it freezes, unlike almost every other liquid. Thus, ice floats, a key behavior necessary for human environment.
  - Helps recycle earth's elements in tectonic cycles – the hydrologic cycle takes the key elements out of the recycled crust and puts it in the biosphere for our benefit.

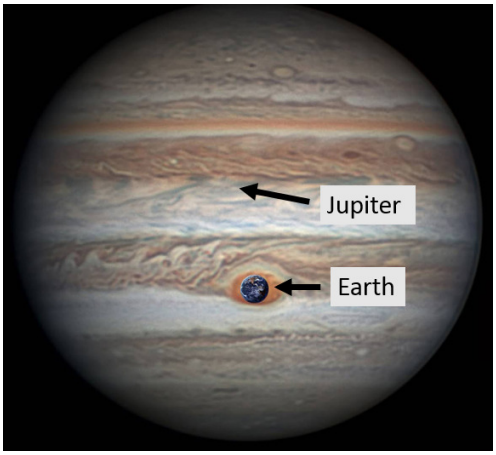
The elements of our world are telling the glory of God.
What about the air that we breathe?

Does science prove intelligent design? Hopefully by now we have all been given a real taste of what mighty power and wisdom were behind all of these things. Let's talk about something as basic as the air that we breathe. How precise is it?

This is so beautiful. Again, we relate this back to the behavior of the physical constants. They are tuned and they are set up in such a way as to permit life. The element of oxygen also is finely tuned for life. It is a source of energy through the slow combustion with hydrocarbons. When you breathe in each moment, the oxygen you are bringing into your lungs is distributed through your blood system to the cells everywhere.

Those cells have the little kinesins dragging things across and the little flagellum in the bacteria inside your body. Those are all still working because the oxygen is feeding it.

This is where we get our energy from. We used the expression "slow combustion." We have a fireplace at home. We put our wood into it to heat our house. The oxidation of the wood produces flames and produces warmth. That happens on a very slow scale within our bodies. That is why you are warm, because of the oxygen used.



There is only oxygen available on planets the size of the earth. If your planet is too big, the atmosphere will contain too much hydrogen and helium, like Jupiter. Jupiter is a gas giant that does not even have a surface. You cannot have oxygen on that, because the predominance of these methane and other hydrogen molecules. If you have a planet that is too small, there is not enough gravity to retain oxygen. For example, Mars. Sometimes folks have ideas of maybe settling on Mars sometime in the future, but one of the challenges is going to be to be able to retain oxygen in the atmosphere. The size of the earth fits in with the requirements of oxygen. Where do we get the oxygen from? Most school children know the answer to that. Plants produce it using photosynthesis. They convert the radiant energy from the sun and produce oxygen as a waste byproduct.

Think about the plants that produce oxygen through photosynthesis. They need radiation from the sun. And you know, gee, what a surprise. Our sun produces *just the right radiation* in the visual region in order for plants to do their photosynthesis. Our sun turns out nearly all its energy in the spectrum we *just happen* to need in order for oxygen to be produced.

That is all by chance?

Another coincidence, huh? It goes even further than that. The atmosphere has just the right composition to allow the spectrum of electromagnetic energy through to the surface of the planet. If we had different types of different mixtures of atmospheric gases, then not all of the radiation would get through, but it is virtually transparent to what the plants need.

Here's another thing. How much oxygen is there available to us? A person needs about 250 milliliters of oxygen per minute. How much we can breathe in depends upon the pressure within our atmosphere. Rick, if you and I traveled up to the top of Mount Everest, guess what we would need?

Oxygen?

We would have to carry a bottle with us, because even though there is oxygen up there, the lower pressure would not allow us to get enough into our bodies. On the earth at sea level and all our inhabitable zones we have just the right amount of pressure of oxygen to make breathing easy without struggling.

One other thing. Twenty percent of our atmosphere is oxygen and about 79 percent is nitrogen. One percent is other gases. If there was too much oxygen in our atmosphere, let's say above 30 percent, guess what problem we would have? If you lit a fire, it would just explode into a very, very heavy fire.

We hear sometimes about tragedies of fires where folks in a hospital have an oxygen tank. They need greater than 30 percent oxygen to live, but it is also

very dangerous. It just so happens that we can have fire on this earth because of the right amount of oxygen. And guess what? If we did not have fire, we would not have technology.

- Oxygen
  - This element is fine tuned to enable life.
  - Source of energy through the slow combustion with hydrocarbons. Only way to get our energy needed for complex life.
  - Can only get oxygen on planets the size of the earth.
  - Too big: atmosphere will have too much hydrogen and helium.
  - Too small: not enough gravity to retain the oxygen.
  - Getting the oxygen: plants using photosynthesis – converts radiant energy from the sun and produces oxygen as a waste by-product.
  - Photosynthesis needs just the right energy from the sun – the visual region only.
  - Our sun turns nearly all of its energy in the spectrum we need for photosynthesis.
  - Our atmosphere has just the right composition to allow this spectrum of electromagnetic energy through to the surface of our planet, largely absorbing those rays which would be harmful.
  - 250 mils of oxygen per minute needed, we have just the right pressure in the atmosphere for our needs – 20 percent of our atmosphere.
  - Too much – spontaneous combustion would be a problem (above 30 percent).
  - Diatomic oxygen does not absorb heat. Not a greenhouse gas.
  - Oxygen content is just right for fire. Without fire, we could not be a technological civilization.

This goes back to some of the most basic things in life that are all connected in a monumental way with things we do not even think about – plants' waste byproduct supplies the oxygen we need, and there is just the right amount for life to sustain itself. Is that intelligently designed or did it happen purely by chance?

What are some of the differences between human beings and the rest of the intelligently created things on this earth?

Here are a few features unique to humans. It is important because part of the materialistic scientific philosophy says that human beings are just like any other animal; there is nothing special about us; we are just the latest version of what evolution can produce.

We find it demeaning as well as immoral, because we see human beings as made in the image of God. That is spiritual, not scientific, but I want to contrast that view with that of the evolutionists.

- Unique to humans

  - Human brains – mathematical prowess. Our brains seem to be wired to understand advanced and abstract concepts.
  - Human voice – unlike any other creature. What other animals have the range of sound in the particular way we can articulate sounds the way a human voice can? The human voice is not only beautifully fit for speech and for communication but for beauty as well. You hear the voice of an opera star, the range. It can bring tears to our eyes. This is all part of the human voice, unlike that of any other animal in the world.
  - Human hand – adapted with opposing thumbs to manipulate our environment to create and do things like no other animal.
  - Location in galaxy enables us to see our environment. Living on earth enables us to see our space environment, our universe environment. If we were closer to the center of the Milky Way, we would have so much gas around us that we could not see outside of the galaxies. Human beings would never be able to know the extent of the universe. They could never see outside of it. But we are pretty far out on the pinwheel and have a clear view to galaxies elsewhere.
  - Humans are a privileged species.
  - The unique fitness of the universe for human life.

It is really an amazing journey to realize all of the things we have going for us as human beings on this planet.

Part 4 - Recap

1. Science now accepts that the universe had a beginning. We talked about the Big Bang and its incredible complexity.
2. It is logical that the universe came into existence from a timeless, space-less immaterial cause of immense power. This statement is scientifically accurate and precise. We interpret this power as God.
3. Belief in an intelligent Creator who brought the universe into existence is in agreement with the facts of cosmology. Someone might say this does not prove the existence of God, but this is not out of harmony with what science has shown us.
4. Postulating that the universe came from nothing is based on no science at all. The existence of God is not provable by science, either. God is outside the context of the universe.

5. The existence of dozens of universal physical constants that are precise to an almost inconceivable degree testify to a fine-tuned universe. Physical constants are incredibly precise.
6. The alternative atheistic explanation of the multiverse has absolutely no scientific evidence for it. This is philosophy, not science. We cannot see other universes, if they even existed, from our universe.
7. Atheistic Scientific Materialism currently has no explanation of how life began.
8. Speculating that the necessary chemistry of life came together by chance is improbable to the point of impossibility. This is saying the DNA molecule came into existence just to random assembly before life began. The probability is so low that for all practical purposes, it is impossible.
9. The most reasonable conclusion from the apparent design of microscopic structures and machines is that they were designed by an intelligent source.
10. The design and behavior of many forms of life cannot be explained by chance. We talked about the monarch butterfly. We could have talked about the sea turtle and many other creatures like the bug that produces a flame thrower.
11. There are numerous characteristics of the universe that justify the belief that our universe is specially fit for human life.

Looking at scientific evidence, I find nothing in science that rules out the existence of God. Science seems to argue overwhelmingly for an intelligent Creator.

We need to be honest about what science is telling us. Be honest about the miracles in science, the miracles in the bigness of the universe and the smallness in those little flagellum that are just these little motors that work inside of bacteria. Understand there is a design. We are blessed to be able to see and acknowledge this.

So, does science prove Intelligent Design?
For Jonathan and Rick and Christian Questions,
Think about it…!

CQRewind SHOW NOTES

Join us next week for our podcast on March 4, 2019:
Ep. #1063: "It This the Moment You Were Created For?" Part II

Bonus Material!

Valid criticism does you a favor. *— Carl Sagan*

"Stretching" – the Big Bang and continuing expansion of the universe:

Job 9:8: (NASB) *Who alone stretches out the heavens and tramples down the waves of the sea.*

Psalm 104:2: (NASB) *Covering Yourself with light as with a cloak, stretching out heaven like a tent curtain.*

Isaiah 40:22: (NASB) *It is He who sits above the circle of the earth, and its inhabitants are like grasshoppers, who stretches out the heavens like a curtain and spreads them out like a tent to dwell in.*

Isaiah 42:5: (NASB) *Thus says God the LORD, who created the heavens and stretched them out, who spread out the earth and its offspring, who gives breath to the people on it and spirit to those who walk in it.*

Isaiah 45:12: (NASB) *It is I who made the earth, and created man upon it. I stretched out the heavens with My hands and I ordained all their host.*

Isaiah 48:13: (NASB) *Surely My hand founded the earth, and My right hand spread out the heavens; when I call to them, they stand together.*

Isaiah 51:13: (NASB) *That you have forgotten the Lord your Maker, who stretched out the heavens, and laid the foundations of the earth; that you fear continually all day long because of the fury of the oppressor, as he makes ready to destroy? But where is the fury of the oppressor?*

Jeremiah 10:12: (NASB) *It is He who made the earth by His power, who established the world by His wisdom; and by His understanding He has stretched out the heavens.*

Jeremiah 51:15: (NASB) *It is He who made the earth by His power, who established the world by His wisdom, and by His understanding He stretched out the heavens.*

Zechariah 12:1: (NASB) *The burden of the word of the Lord concerning Israel. Thus declares the Lord who stretches out the heavens, lays the foundation of the earth, and forms the spirit of man within him,*

So, life on earth becomes a matter of likely good luck:

Isaiah 65:11: (NASB) *But you who forsake the Lord, who forget My holy mountain, who set a table for Fortune, and who fill cups with mixed wine for Destiny.*

Isaiah 65:11: (New World Translation) *But you are among those forsaking Jehovah, those forgetting my holy mountain, those setting a table for the god of Good Luck, and those filling up cups of mixed wine for the god of Destiny.*

God as the Creator:

Genesis 1:1: (NASB) *In the beginning God created the heavens and the earth.*

Hebrews 3:4: (NASB) *For every house is built by someone, but the builder of all things is God.*

Job 26:7: (NASB) *He stretches out the north over empty space and hangs the earth on nothing.*

Foolish and without excuse not to see God in nature:

Romans 1:20: (NASB) *For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse.*

Psalms 14:1: (NASB) *The fool has said in his heart, There is no God. They are corrupt, they have committed abominable deeds; there is no one who does good.*

We are made of the elements of the earth:

Psalm 139:15: (NASB) *My frame was not hidden from You, when I was made in secret, and skillfully wrought in the depths of the earth;*

Jesus believed in Adam and Eve:

Matthew 19:4: (NASB) *And he answered and said, Have you not read that He who created them from the beginning made them male and female.*

More quotes from respected scientists:

Amazing fine tuning occurs in the laws that make this [complexity] possible. Realization of the complexity of what is accomplished makes it very difficult not to use the word 'miraculous' without taking a stand as to the ontological status of the word. *— George Ellis (British astrophysicist, The Anthropic Principle, F. Bertola and U.Curi, ed. New York, Cambridge University Press, p. 30.)*

We are, by astronomical standards, a pampered, cosseted, cherished group of creatures... If the universe had not been made with the most exacting precision we could never have come into existence. It is my view that these circumstances indicate the universe was created for man to live in. *— John O'Keefe (astronomer at NASA, Fred Heeren, Show Me God, Searchlight Publications, 1995)*

I find it quite improbable that such order came out of chaos. There has to be some organizing principle. God to me is a mystery but is the explanation for the miracle of existence, why there is something instead of nothing. *— Allen Sandage (winner of the Crawford prize in astronomy, Wilford, J.N. March 12, 1991. Sizing up the Cosmos: An Astronomers Quest. New York Times, p. B9.)*

Astronomy leads us to a unique event, a universe which was created out of nothing, one with the very delicate balance needed to provide exactly the conditions required to permit life, and one which has an underlying (one might say 'supernatural') plan. *— Arno Penzias (Nobel Prize in physics, Margenau, H and R. Varghese, ed. 1992. Cosmos, Bios, and Theos. La Salle, IL, Open Court, p. 83.)*

When I began my career as a cosmologist some twenty years ago, I was a convinced atheist. I never in my wildest dreams imagined that one day I would be writing a book purporting to show that the central claims of Judeo-Christian theology are in fact true, that these claims are straightforward deductions of the laws of physics as we now understand them. I have been forced into these conclusions by the inexorable logic of my own special branch of physics. *— Frank Tipler (Professor of Mathematical Physics, Frank Tipler, The Physics of Immortality, New York, Doubleday, Preface, 1994.)*

For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries. *— Robert Jastrow (self-proclaimed agnostic, Robert Jastrow, God and the Astronomers. New York, W.W. Norton, p. 116, 1978)*

I find it as difficult to understand a scientist who does not acknowledge the presence of a superior rationality behind the existence of the universe as it is to comprehend a theologian who would deny the advances of science. *— Wernher von Braun (Pioneer rocket engineer, McIver, T., Ancient Tales and Space-Age Myths of Creationist Evangelism. The Skeptical Inquirer 10:258-276, 1986)*

Quotes from Richard Feynman, Physicist extraordinaire:

I believe that a scientist looking at nonscientific problems is just as dumb as the next guy.

If you thought that science was certain – well, that is just an error on your part.

I'm smart enough to know that I'm dumb.

Tell your son to stop trying to fill your head with science — for to fill your heart with love is enough!

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(Note: We do not endorse everything on these websites. We note them as good references for the subject matter of this program.)

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(see Youtube Documentary: https://www.youtube.com/watch?v=ajqH4y8G0MI)